



# T E N N E T

## Key ratios

	2004	2003	2002 <sup>1)</sup>	2001	2000
<b>Financial data (x EUR 1,000,000)</b>					
Turnover	415.8	358.1	326.4	354.5	274.0
Operating profit (EBIT)	112.0	82.5	80.1	78.6	49.8
Net profit after tax	58.0	51.0	46.6	63.6	29.0
Tangible fixed assets	794.0	765.1	492.3	482.1	506.0
Shareholders' equity	374.1	339.2	288.2	179.2	115.6
Balance sheet total	1,861.9	1,711.6	994.6	875.5	693.2
Average number of staff (as FTEs)	469	328	276	250	222
<b>Financial ratios<sup>2)</sup></b>					
Solvency	41.6%	35.1%	43.3%	26.8%	16.4%
Average earning power total capital	12.0%	10.1%	12.0%	12.8%	5.7%
Average earning power shareholders' equity	16.3%	16.2%	19.9%	46.9%	31.5%
Interest coverage rate	12.8	18.2	9.0	5.3	2.4
<b>Technical statistics</b>					
Circuit length – 380kV (x km)	2,003	2,003	2,003	2,003	2,003
Circuit length – 220kV (x km)	683	683	683	683	683
Circuit length – 150kV (x km)	551	542	-	-	-
380kV substations (number)	18	18	18	18	18
220kV substations (number)	12	12	12	12	12
150kV substations (number)	19	19	-	-	-
Availability of connections with lower-voltage grids (percentage of time) <sup>3)</sup>	98.9	99.2	99.7	99.3	98.9
Availability of cross-border interconnections (percentage of time)	98.5	98.5	94.8	98.7	97.0
Imports (x GWh)	21,405	20,801	20,870	21,492	22,946
Exports (x GWh)	5,188	3,809	4,488	4,209	4,031

<sup>1)</sup> Adjusted to make allowance for deferred tax receivable.

<sup>2)</sup> Balance sheet total less non-available cash at banks and in hand, accounts payable/receivable, exchange transactions and investment contributions received in advance.

<sup>3)</sup> Non-availability due to planned maintenance and projects.

# The Dutch transmission grid

1 January 2005

- 380kV renner
- 220kV renner
- 150kV renner
- 150kV regional grid companies
- 110kV regional grid companies
- ↔ 380kV cross-border interconnection
- ↔ Project Randstad380
- ↔ Project NorNed cable
- switching and/or transformer station
- Diemen name 220kV- or 380kV-station
- National Control Center renner
- line apertures
- power plant 60 - 250MW
- power plant > 250MW

Imports, exports per cross-border interconnection

Netherlands total

21 405	20 801	imports in GWh
5 188	3 809	exports in GWh
2004	2003	



**Diele**

2 936	3 831	imports in GWh
522	341	exports in GWh
2004	2003	

**Gronau**

5 383	4 564	imports in GWh
8	18	exports in GWh
2004	2003	

**Maasbracht-België**

2 738	3 594	imports in GWh
3 576	2 554	exports in GWh
2004	2003	

**Borssele/Geertruidenberg-België**

1 315	2 183	imports in GWh
1 054	655	exports in GWh
2004	2003	

**Maasbracht-Duitsland**

9 033	6 629	imports in GWh
28	241	exports in GWh
2004	2003	

### CertiQ: Key statistics

Types of renewable energy (x MWh)	Netherlands	Other countries
	2004	2004
Biomass	2,080,670	7,507,902
Hydro	88,314	2,566,657
Solar	2,173	-
Wind	1,905,545	375,669
CHP	15,926,957	-
<b>Total</b>	<b>20,003,659</b>	<b>10,450,228</b>

### Auction: Key statistics

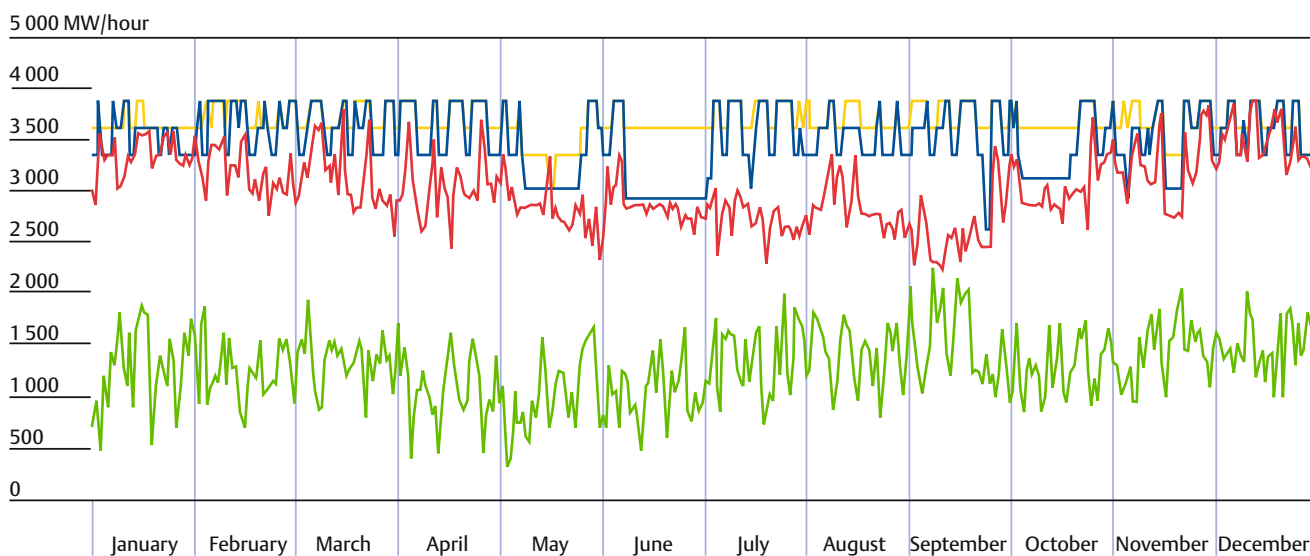
Financials	Available capacity (x TWh)	Secured capacity (x TWh)	Revenue (x EUR 1,000)
Daily auction	46,3	44,7	20,770
Monthly auction	19,4	19,4	26,119
Annual auction	15,8	15,8	36,447
<b>Resultaat</b>		<b>4,2</b>	<b>(1,076)<sup>1)</sup></b>
<b>Total</b>		<b>76</b>	<b>82,260</b>

<sup>1)</sup> Relates to net revenue, allowance already having been made for payments to participants having sold back capacity

### Cross-border exchange

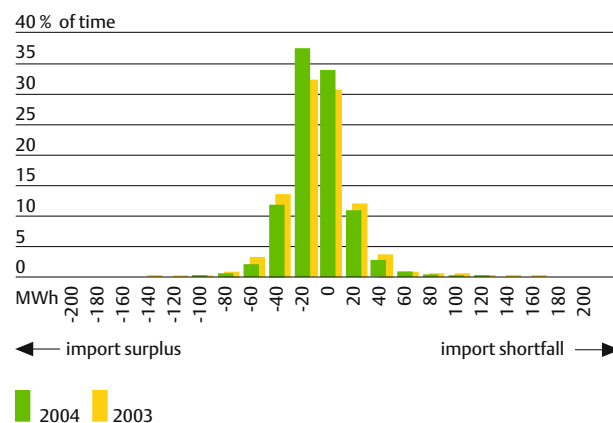
The graph shows the capacity released and the maximum programme values of imports and exports on a daily basis in 2004.

- Capacity released
- Capacity released
- Imports
- Exports



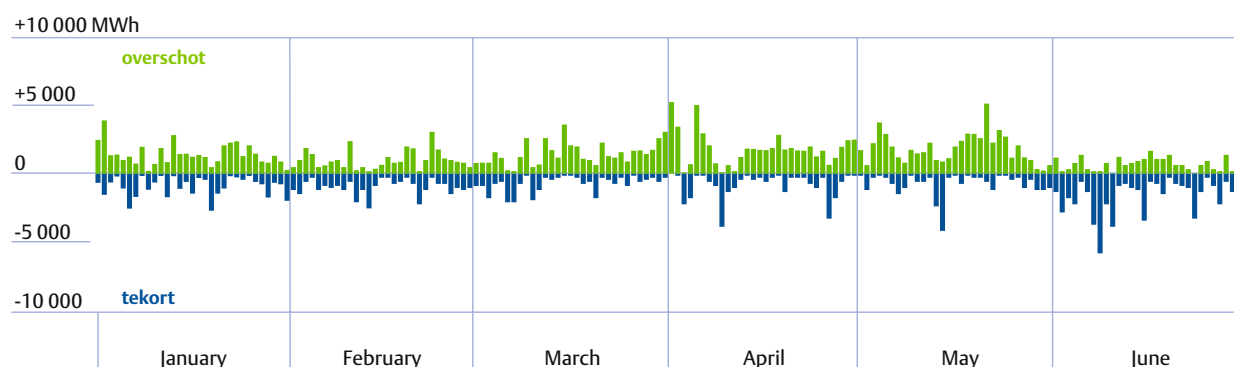
### Involuntary exchanges between the Netherlands and other countries

The diagram shows the discrepancies of the physical energy flows relative to the exchange programme involving other countries expressed in hourly values. The difference with the international exchange programme was maintained at less than 20MWh in 71.1% of the hours, whereas the national standard of 100MWh was missed in 0.2 of the time.

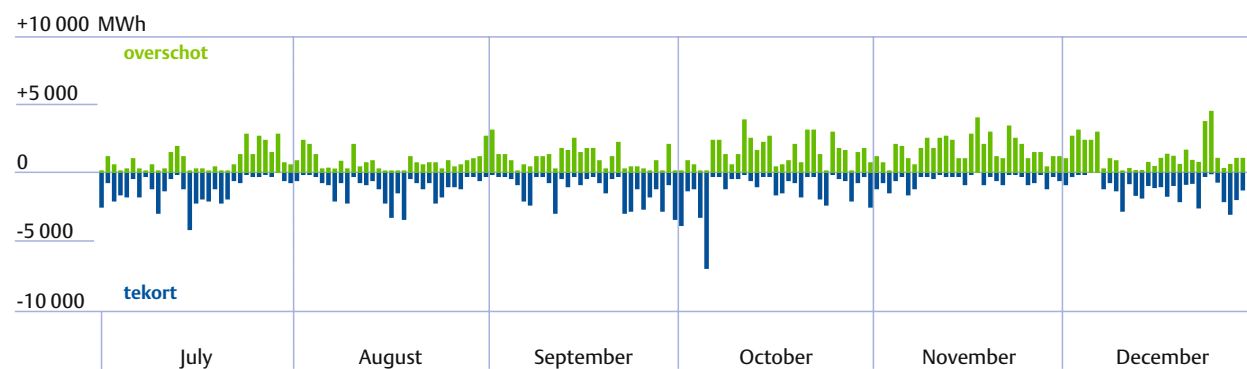


### Imbalance of PRPs per day

The chart shows the aggregate imbalance per day of all PRPs (Programme Responsible Parties) over the period from 1 January to 31 December 2004 inclusive, with the bars showing the volume per day of the positive imbalance (surplus) and negative imbalance (shortfall).



Imbalance per day



# **Annual Report 2004**

# tennet: brimming with energy

## Our mission

tennet is the independent and impartial market facilitator in the liberalised energy market. With its high-grade transmission grid and customised services it markets and develops a comprehensive range of transmission and system services as well as supplying services aimed at boosting the market mechanism and encouraging the development of a sustainable energy supply system. All these services are made available to the market on the basis of impartiality.

## Our vision

tennet is keen to take its development as a reputable TSO in the Dutch and northwestern European market to an even higher level so as to strengthen its market position, as this would enable tennet to be of optimum service to Dutch society, to its shareholder and to its own staff, both now and in times to come.

tennet's mission and vision are aimed at being of service to its diverse stakeholders:

- Dutch society: by offering efficient high-grade transmission and system services, by promoting equitable grid access and through market transparency, as well as through the realisation of cross-border interconnections and by facilitating and promoting the energy market on the back of activities in the areas of exchanges, monitoring, certificates and enhancement of the environmental quality of energy;
- the shareholder: by achieving an optimum return owing to a stable and predictable dividend and growth in shareholders' equity, with the statutorily defined parameters and within the confines of what qualify as appropriate activities and acceptable risks;
- the tennet workforce: by offering an attractive working environment, not just where it concerns the day-to-day operating duties, but also in terms of growth prospects.

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# Infrastructure for the future

The energy market is in full swing both nationally and internationally. In the Netherlands political debates on the theme of energy policy regularly underline the importance of the contribution by an independent administrator of the national transmission grid towards the proper functioning of the electricity market and the safeguarding of the public interest in this context. It is advisable from a supply reliability and efficiency perspective that a single national transmission grid should be formed. It is tenner's ambition over the coming years to secure ownership of the full complement of transmission grids in the Netherlands.

The energy market is developing at European level. The expansion of the electricity market is enhancing the market mechanism as well as providing for greater competition, which in turn is resulting in better pricing as well as strengthening the reliability of supply. tenner intends to continue operating as a major player in the international market that is developing. We can bolster service provision in the market by joining forces with other European countries. Our plans of improving the energy infrastructure at European level became concrete in 2004 with the launch of the NorNed project, which entails the construction of a high voltage interconnection between the Netherlands and Norway.



# Report of the Board of Management

**In its capacity of Transmission System Operator and administrator of the Dutch transmission grid, tenneT is in charge of the ‘motorways’ of the Dutch electricity grid, which connects all regional grids as well as the European grid. The organisation seeks to ensure optimum service provision in support of a smoothly operating electricity market in the Netherlands and in northwestern Europe, and as such devotes continuous attention to the strengthening of this Dutch electricity market within a European perspective. A selection of major developments and tenneT activities having occurred during the year under review are discussed in more detail below.**

## **Need for transparent and liquid market**

In order for the electricity market to perform with efficacy and efficiency, an adequate level of market liquidity is called for as this enables market players, such as generating companies, traders and consumers, to underpin their market conduct with the right sort of considerations owing inter alia to reliable pricing signals being issued. According to an analysis which the General Energy Council published in March 2004 under the title ‘Behoedzaam stroomopwaarts’ (Upstream with caution), the wholesale market is particularly crucial to a properly functioning market, the preconditions of this dictating that supply should exceed demand while there should be enough power suppliers. The market must not be dominated by a small number of players which are in a position to exert significant influence on prices, as this will undermine confidence in the market as well as causing other players or new entrants to back off. The General Energy Council has also stressed the importance of sufficient transmission capacity within the electricity grid and that of equal access for all players. Transparency and effortless switching options are further characteristics of a properly functioning market. DTe, the Dutch Office of Energy Regulation, has established that the liquidity in the Dutch wholesale market has been on a downtrend since 2002 in a trend which it has branded as unfortunate. It has also stated that the European market is currently geographically confined owing to grid restrictions, arguing that additional transmission capacity could help boost liquidity. This has been an important consideration for DTe during the year under review to approve tenneT’s investment in the NorNed project, within the context of which an interconnection is to be created between the Netherlands and Norway.

## **New interconnection with Norway**

Whenever tenneT is considering to invest in the expansion of interconnective capacity, it always starts by looking into the gains for the Dutch energy market in terms of improved reliability of supply and enhancement of the market mechanism, as well as preparing a cost-benefit analysis for the users. This weighing up of the pros and cons has turned out favourably for the NorNed project, which entails the construction of an undersea interconnection with a capacity of 700MW to link up Norway and the Netherlands, to come on stream in 2007. In Norway 99% of all electricity is generated using sustainable hydropower whereas in the Netherlands, it is mostly natural gas and coal that are used as fuel by generating plants. Dutch plants could supply power to Norway at night, when Dutch demand is low, so as to relieve the Norwegian reservoirs, with Norway supplying power to Dutch users during the expensive daytime peak hours.

It would be partly owing to this that the new interconnection would result in more stable and lower prices on the Dutch market. The projected gains owing to price discrepancies between the two markets would render the cable a financially feasible option, in addition to which the interconnection would help boost the reliability of supply in both countries as well as enhancing the Dutch market mechanism and improve market liquidity. Moreover, the NorNed project would enable the Netherlands to assume a more central position within the European grid rather than a marginal one. The NorNed project is fully in line with the European Commission's ambition of achieving further market integration so as to bolster the European energy market.

### **Interconnection with Germany and Belgium**

tennet is also working on the better utilisation of the capacity on the existing cross-border interconnections with Germany and Belgium, collaborating closely in this area with the relevant TSOs both in day-to-day operational processes and in a structural sense, where the development of the grid is concerned. The Dutch authorities too are keen to help boost the international market mechanism, and have taken the initiative to enter into consultations with the neighbouring countries. Early March 2005 Memorandums of Understanding were concluded between the Netherlands, France, Luxembourg and Belgium, aimed at the further optimisation of interconnection and enhancement of the necessary exchange of information between TSOs and watchdog organisations. This approach is fully in line with the European Commission's vision, according to which the integral European energy market stands to gain the most from the proper organisation of the regional markets, which moreover should be liberated from their current impediments.

The call for international collaboration will do nothing if not intensify in times to come as a result of the challenges posed by the energy market, for example where it concerns the efficient inclusion of sustainable energy as something which is being strongly advocated by all EU Member States. For example, the necessary adjustments will have to be made in good time in order for the international electricity system to be able without complication to cope with, and transmit, the large volumes of wind energy that are generated. At present the fluctuations in the wind energy supply in northern Germany are sparking wildly varying international flow patterns, which are already causing unsafe situations in the Dutch grid with some frequency. When this occurs, the market mechanism too is hampered due to the reduced level of interconnective capacity being available to market players. tennet in consultation with its international counterparts is working on resolving the current bottlenecks by ensuring proper information exchange and close collaboration. However, structural reinforcement of the internal German grid is a must in the short term in view of the anticipated surge in wind energy in Germany over the coming years if northwestern Europe is to be protected from massive electricity supply failures in the not so distant future. The current trend underlines the urgent need for introduction of better market mechanisms for international power transmission and balancing mechanisms for wind energy throughout the European electricity system. Without structural improvements along the lines of the above, the risk of northwestern Europe suffering black-outs will continue rapidly to increase. tennet has urged the authorities and the German TSOs, RWE Transportnetz Strom and E.ON Netz, to get the ball rolling as soon as possible, and is itself implementing such measures as are within its range of influence.

## Ongoing integration by market coupling

Market coupling is a road towards optimisation of the European market, of which the Dutch market players would also benefit, with the aim of achieving the further integration of the various electricity markets by deploying the power exchanges. The European power market is currently a fragmented one. A better market link would be provided by offering the daily interconnective capacity on the exchanges (implicit auction). This would imply, however, that the TSOs, as the parties in charge of auctioning off the cross-border capacity, should be closely linked to the exchanges. The Dutch scenario, where the association between the day-ahead market (APX) and the TSO (tennet) is one of closeness, has a bolstering effect by virtue of this very interwovenness of interconnective capacity, imbalance and day-ahead market. It is to the advantage of market players that markets should be coupled, as this would enable them to purchase their energy and capacity in one go. The European Commission sees market coupling as an efficient and market-led mechanism for the distribution of short-term interconnective capacity between market players. Indeed it has been a tried and tested mechanism in Scandinavia for quite some time now. The NorNed project will ensure that the Scandinavian and Dutch markets are linked up via the two power exchanges Nord Pool Spot and APX. Linking up the northwestern European market is something which tennet is working on together with the Dutch government and Elia, the Belgian TSO, and RTE, its French counterpart. Both tennet and APX are involved in this context in the launch of the Belgian power exchange, Belpex, with tennet participating in Powernext as the French exchange.

## Single national transmission grid

The creation of a single, efficient national transmission grid is also of importance against the background of the market trends as elaborated upon. tennet seeks to pool together the various constituent national transmission grids, which in the present situation come under 'fragmented' administration and which to a considerable extent are currently owned by a number of different energy companies. It is appropriate from a perspective of supply reliability and efficiency that a single national transmission grid should be put in place. A study was carried out during the year under review, addressing the specific functions of the transmission and distribution grids and elaborating upon the standards to be imposed on these two grids. The realisation of the national transmission grid has also featured prominently in the recent political segregation debate concerning the future structure of the electricity market, with the legislator having since suggested that all grids from a minimum of 110kV and upwards should be placed under the administration of tennet, to enhance the reliability of the electricity supply. This plan enjoys comprehensive support both politically and in the community. In addition to assuming the statutorily defined remit of administrator, tennet would eventually also wish to own the full complement of transmission grids. An initial step towards the creation of a single national transmission grid taken during the year under review was the completion of the integration of Transportnet Zuid-Holland (TZH), which tennet had taken over in 2003. The realisation of a single national transmission grid is being anticipated in the current Bill. It is particularly crucial in view of investment in support of reliability of supply in the longer term that the effective date should be as early as possible.

The Board of Management,  
J.M. Kroon



**Raymond Berentsen, project manager**

*'I'm delighted with what we have achieved on Maasvlakte. This station is highly innovative, to the point where I would actually describe the innovations as nothing short of revolutionary. We have broken a fair number of taboos as we went along. The tenet staff involved in the project have demonstrated their ability to let go, in line with our new philosophy.'*

**Henk Sanders, who as physical planner has been involved in the project**

*'Project progress has been incredibly smooth. The physical planning aspects tend to be regarded as a bottleneck: procedures take a long time to complete in the Netherlands, and we're not always in a position to speed things up. However, this time we needed hardly any time at all to secure the necessary permits. For this we owe a debt of gratitude to all the parties, not least the Municipality of Rotterdam: more often than not, a single phone call was enough to schedule a meeting for the very next day. This made it possible for us to crack on, and that has been a real bonus.'*



## 380kV station at Maasvlakte: A wonderful new link in the transmission grid



*Changing production methods in greenhouse farming have been pushing up demand for electricity in the Randstad region at a rate of knots, in a trend which made the construction of the new 380kV station at Maasvlakte, which has provided the province of south Holland with a state-of-the-art transmission grid for the coming years, a keystone project during the year under review. Equipped with the latest technology, this sophisticated open-air station has assured the reliability of supply for the entire province into the future.*

*The project group initially believed that modification of the existing facility would be sufficient to bring it up to standard. However, a study group concluded that this would not be a feasible option, and so a start was made on the development of a new-build plan. This entailed attention being devoted to technological innovations achieved in recent years, to assess whether these would be suitable. A no-frills approach was rigorously adhered to right from the word go, the aim being to arrive at a functional and secure station requiring as little maintenance as possible.*

*Meanwhile the necessary permits were promptly collected, one of the advantages of the site – the Maasvlakte being a stretch of raised land with virtually nothing on it, located a mere stone's throw away from the North Sea coast – being its lack of inhabitants, so that no objections were raised by local residents. A problem did present itself, however, in the form of a large work of art situated in the immediate environment. Luckily it was not at all difficult to convince the artists of the importance to the community of Maasvlakte station, so that a three-in-one solution was swiftly devised, with part of the work of art being removed, station being built over part of the existing structure and a new section being added on. What could be better than integrated art?*

*The new 380kV station at Maasvlakte may well turn out to have set a brand-new standard: the new station at Wateringen has been designed as a modified version of Maasvlakte station, while work at Westerlee will be carried out according to similar technical points of departure. A start is being made in 2005 on transferring power from the old gas-insulated switching unit to the new station. As soon as this has been completed, the Dutch transmission grid will boast yet another major link in the grid, and one that will form a sound basis for the 'Randstad380' project.*



tennet sets great store by the application of the principles of good governance, the rendering of account, supervisory independence, and transparent and responsible entrepreneurship. To this end the tennet Board of Management in late 2003 decided to subject itself where possible and appropriate to the principles of proper corporate governance and the ensuing 'best practice' provisions as per the Tabaksblat Committee's Corporate Governance Code.

An explanation is set out below, in accordance with the Corporate Governance Code, of why and to what extent the principles and 'best practice' provisions as per the Code are departed from by tennet.

## *Governance*

*II.1.4. tennet has prepared a Code of Conduct which, rather than being disclosed via its website, will be posted on the tennet intranet, as tennet regards it as a set of internal regulations.*

*II.2.1 to II.2.5 inc. tennet does not operate a system of remuneration in the form of share options as the State of the Netherlands is the holder of the full complement of its shares.*

*II.2.6. and III.7.3. tennet operates revised Insider Trader Regulations. Neither the Board of Management nor the Supervisory Board members are permitted to engage in security transactions involving listed energy companies. A set of regulations and a list have been drawn up in this context, to be posted on the company's intranet.*

## *Supervisory Board*

*III.2.2. Three of the dependence criteria have not been adopted by tennet, two of them pertaining to Supervisory Board members with shareholdings in tennet (as this does not apply to tennet) whereas the third deals with a Supervisory Board member having temporarily provided for the governance of the company in the event of the Board of Management being unavailable or incapacitated (see also III.6.7).*

*III.3.4. tennet has imposed no maximum upon the number of supervisory directorships at listed companies, as this could in its opinion be counterproductive to its ambition of recruiting only the best supervisory directors.*

*III.4.3. tennet has decided not to appoint a designated company secretary; it being tennet's Legal Affairs department which is entrusted with the responsibilities of such an officer as set out in the 'best practice' provisions where the monitoring of compliance with the proper procedures and acting in accordance with legislation and regulations are concerned.*

*III.6.6. No delegated Supervisory Board member is in office at tennet.*

*III.6.7. Any Supervisory Board member who provides for the administration of the company owing to the Board of Management being unavailable or incapacitated will in principle only step down temporarily: once he has completed his administrative term, the Supervisory Board and the General Meeting of Shareholders will decide whether the Supervisory Board member may be reinstated as a supervisory director. The length of the administrative term could be relevant to their decision.*

*III.7.1 and III.7.2. These provisions deal with shareholdings by Supervisory Board members, as something which does not apply to tennet.*

*III.8.1 to III.8.4 inc. The provisions deal with a single-tier administrative set-up and do not apply to tennet as the latter comes under a statutory two-tiered ('structure') regime.*

#### *General Meeting of Shareholders*

*Many of the 'best practice' provisions pertaining to the General Meeting of Shareholders do not apply to tenner as it has just the one shareholder, has 'structured company' status and is not listed on any stock exchange. These provisions are as follows:*

*IV.1.1. non-structure regime company; IV.1.2 . voting right in respect of finance-preference shares; IV.1.3. public disclosure of bid; IV.1.7. registration date of voting right; IV.2.1 t/m IV.2.8 depositary receipts for shares; IV.3.1 t/m IV.3.4 dealings with analysts, financial press and institutional investors; IV.3.7 shareholder circular; IV.3.9 protective mechanisms; IV.4.1 t/m IV.4.3 responsibility institutional investors.*

#### *External auditors*

*V.3.1. tenner has decided not to set up an Internal Auditing Department, as something which would be inappropriate given the size of the business and in view of the fact that a Corporate Control cluster and a Quality and Auditing cluster are in operation at its Finance Department.*

### **Structure regime**

It follows from the Electricity Act 1998 that tenner should comprehensively come under the 'structure' (statutory two-tier) regime, implying that its Board of Management is under the obligation to submit certain resolutions as set out in the law for the prior approval of the Supervisory Board.

The statutory provisions pertaining to the 'structure' regime having been amended with effect from 1 October 2004, this has resulted in greater authority having been conferred upon the General Meeting of Shareholders.

### **Board of Management**

tenner's Board of Management is responsible for the company's strategy, for the effective and efficient realisation of the business goals, for the company's results and its compliance with relevant legislation and regulations, and for controlling the risks to which tenner is exposed. The Board of Management is monitored by the Supervisory Board, and in the performance of its duties gears its efforts to the vested interests of the company and the associated enterprises, weighing up all relevant interests in this context.

The Board of Management is supported by a management team. Reference is made to the tenner website where the organisational set-up is concerned. The powers to represent the company rest with the Board of Management and with the members of the management team, with due observance of any restrictions that may have been imposed.

All of tenner's departments as well as its group companies prepare annual plans, which always include an operating budget, investment budget and financial budget. These plans represent the mandate of the managers and executive boards of associated enterprises.

The consolidated annual plan - which accommodates the treasury plan - is submitted for the approval of the Supervisory Board, in accordance with the company's constitutional stipulations, and represents the Board of Management's mandate.

The various departments and the group companies report on the realisation of the implementation of the annual plan on a quarterly basis (or with greater frequency), their reports also addressing the financial performance and operating results. The Finance Department subjects the internal control measures of certain processes that are critical to the business to a twice-yearly evaluation additionally to the planning and control cycle.

Since 2003 tenner has held an 'internal control' assurance certificate issued by its external auditors in respect of the balance maintaining processes. This certificate is available for inspection on the tenner website. 'Internal control' assurance certificates are expected to be secured in 2005 for the processes of EnerQ and CertiQ as tenner subsidiaries.

Mid-2004 tenner optimised its organisational set-up in the following respects: on the one hand, the more comprehensive weighing up of technical performance, operational accomplishment and (financial) risks in relation to the administration and construction of high voltage grids, and on the other the further assurance of the proper handling (viz., demonstrably, impartially and independently) of the various system responsibilities.

#### **Core values: quality and integrity**

Although tenner's mission and vision serve as the company's leitmotif in all its choices, its core values – quality and integrity – also help define its actions. A code of conduct has been drawn up on the basis of these core values, which in turn forms part of tenner's Corporate Code.

External developments call for a corporate code as much as internal developments do. The environment in which we operate increasingly insists on quality and conscientious business management. The corporate code offers a useful basis for the conduct and communication to be adhered to within tenner. The corporate code, as the code of conduct to which the Corporate Governance Code refers, is to be implemented within tenner in the course of 2005.

The Whistleblower Regulations represent a further tool in safeguarding quality and integrity within the business. This scheme enables employees to report on alleged irregularities within the business, be they general, operational or financial in nature, to a specially appointed counsellor. It is explicitly stated in the Whistleblower Regulations that such reports may be made without the employee in question jeopardising his or her own legal position. The Whistleblower Regulations too are available for inspection on the tenner website.

#### **Internal control and risk management**

The Board of Management is in charge of the policy development in support of the business's internal control and risk management systems and of assessing their efficacy. The tenner departments and the group companies are all responsible for setting up such systems and ensuring that they live up to expectations.

tenner intends in 2005 to achieve the further optimisation and implementation of an internal risk

control and monitoring framework that is specifically geared to the business in all its dimensions. tennet fully appreciates the social position it commands and as such, continuously seeks to ensure that its internal control and risk management systems should operate at the highest possible quality level.

## **Supervisory Board**

The Supervisory Board monitors the Board of Management's strategic and organisational policy as well as overseeing the manner in which the Board of Management provides for the operation of the company's business and the associated enterprises. The Supervisory Board as a whole is responsible for the implementation of the duties with which it has been charged. The Supervisory Board carries out its duties in the best interest of the business, and weighs up the full complement of relevant interests in this context. The members of the Supervisory Board each have independent status as referred to in the Corporate Governance Code, as well as being independent as defined in the Electricity Act 1998.

As a result of the amendment of legislation in terms of the statutory two-tier ('structure') regime, it will henceforth be the General Meeting of Shareholders which will appoint the Supervisory Board members. This appointment is subject to recommendation by the Supervisory Board, with the General Meeting of Shareholders and the works council each having advisory powers while fortified advisory powers accrue to the works council for the appointment of one third of the total number of supervisory directors. Additionally to the statutory obligations ensuing from the structure regime, each such appointment is subject to the prior approval of the Minister of Economic Affairs, as set out in the Electricity Act 1998.

The Supervisory Board has prepared a profile of its scope and composition, with due allowances being made for the nature of the business and the prescribed expertise and background of its members. This profile is available for inspection on the tennet website. The Supervisory Board is made up of at least three members, the present Supervisory Board consisting of five supervisory directors. A maximum of three four-year terms of office applies to the individual Supervisory Board members; a retirement rota has been prepared in this context, which again is available for inspection on the tennet website.

### **Regulations**

The Supervisory Board in May 2004 prepared a set of supervisory board regulations, to assist it in its proper performance of its duties and in line with the Corporate Governance Code. These regulations and all other information on the Supervisory Board and its individual members are available for inspection on the tennet website.

## **Audit Committee**

The Supervisory Board has established an Audit Committee made up of some of its members. A set of regulations has been prepared to assist the Audit Committee in the proper performance of its remit, which is to assist the Supervisory Board in the decision-making process. The Audit Committee reports to the Supervisory Board on its findings.

It is the responsibility of the Audit Committee to oversee the (quality of) financial reporting inclusive of quarterly reports and annual reports, financial reporting policy and procedures, the (quality of) internal control mechanisms, the independent external audit of the financial statements, and the performance and evaluation of the external auditors.

## **External Auditors**

PricewaterhouseCoopers Accountants N.V. as tennet's external auditors are in charge of auditing the financial statements. They report to the Supervisory Board and the Board of Management. The external auditors prepare audit reports and management letters for each of the tennet companies as well as issuing auditors' reports on the financial statements.

The external auditors are in attendance at Audit Committee and Supervisory Board meetings at which the audit reports and management letters and the financial statements – inclusive of the underlying reporting policy – are discussed.

Such services as tennet outsources to PricewaterhouseCoopers are tested in advance in terms of their compatibility with the external auditors' independent status. A policy of prudence applies in this respect.

tennet received a total of EUR 0.9m in invoices from PricewaterhouseCoopers for the financial year 2004, of which 65% related to audit work and audit-related activities and 35% to advice of a tax consultancy nature.



**Gerard van Abswoude, property manager**

*'This project has been a huge challenge. There was little time to make preparations and the plans required tweaking as we went along. This put immense pressure on those involved. There have been weeks in which we felt we were going under, but now we're past all that.'*

**Ebart van den Berg, project manager**

*'There have been times when I couldn't help thinking, there's no way we're going to pull this one off. As project management we had to take immediate action from time to time without there always being time to bring everyone up to speed, resulting on occasion in an unconventional approach. But the end result has made it all worth while: we now have a splendid station that will last us at least another 30 years.'*



## Refurbished station at Waalhaven gains in importance

*What had started out as a necessary refurbishment of a station of minor significance is set to be concluded in the summer of 2005 with the hand-over of a state-of-the-art switching hub whose capacity has just about doubled. Waalhaven station, in Rotterdam, is a textbook example of a project in which tenner has consistently responded to changes with maximum flexibility.*

*The plans were overtaken by recent developments on several occasions, so it was back to the drawing board time and again. Even the very backbone of the station proved not to be immune from continual change: as it was threatened to fall victim to overload, it was decided to divide it into a northern and a southern arm, as something which could not possibly have been foreseen when the project was first embarked upon, in 2000. Waalhaven station, an outdoor switching hub with 20 fields occupying a plot measuring 300 by 100 metres, was obsolete and in urgent need of a major overhaul. However, Transportnet Zuid-Holland (TZH) as the then owner had not quite made up its mind as to whether it should proceed with refurbishment or, alternatively, downgrade the facility or close it down altogether. In the end TZH, partly inspired by financial considerations, opted in favour of refurbishment, entailing the one-on-one replacement of components. No sooner had the job been taken in hand, in 2002, or the announcement that a 900MW power plant was being constructed close by threw a spanner in the works. The entire layout was scrapped, generators and phase shifters were added, reactive power compensation was now a necessity and the station was significantly upgraded in many other respects as well. To top it all, sizeable inroads were made on the lead time, in that it was contractually agreed with those who had taken the initiative to build the power plant that the whole thing would be able to go live on 1 April 2003. It took TZH just a few months to produce a brand-new design for the station, with construction kicking off in August 2002. Weekend work was a regularly recurring feature as the operating assets could not be switched off on week days. The constituent project needed so as to connect the new power plant was completed on time. However, this did not yet finish the project as such, as there were 13 more fields to go ... or so it was thought.*

*Late 2003 a further dimension was added to the project, when ProRail as the administrator of the Dutch railway infrastructure communicated its keenness to be hooked up to Waalhaven station in connection with the Betuwe railway line. Again, tenner came up with an adequate solution: the backbone was split in two, and by mid-2004 Waalhaven station had reached the stage of development where work pressure was gradually easing off. The project will be finalised in the summer of 2005.*

On the picture: left George van den IJssel (tenner) and a third party.



# Report of the Supervisory Board

The Supervisory Board, having taken cognisance of the annual report and the financial statements and of the audit certificate issued by PricewaterhouseCoopers Accountants N.V. in their capacity of external auditors, has found itself to be in agreement with these documents and would hereby recommend that the General Meeting of Shareholders should decide on the financial statements.

## Activities

The Supervisory Board convened in plenary meetings on six occasions in 2004, with attention being devoted to the following themes:

- the strategy of the business and the risks to which it is exposed and the elaboration of same, and the development of new operations partly in response to market trends;
- the refinancing of existing loans;
- investments in support of infrastructural projects including the 'Randstad380' project and the NorNed cable project;
- reliability of supply in response to the report by the Ministry of Economic Affairs;
- regulation of significant investments;
- organisational set-up through asset management, holding company set-up;
- the integration and reorganisation of TZH and tenneT;
- tenneT's corporate governance structure in response to the Tabaksblat Committee, and
- the performance of the Supervisory Board and the Board of Management.

## Composition

The composition of the Supervisory Board has remained unchanged after the death, in September 2003, of Johan Stekelenburg.

Mr C. Griffioen's first term of office as supervisory director of tenneT expired on 15 June 2004. He has duly been reappointed for a subsequent term, to expire on 15 June 2008.

On the 8th of March 2005, mr A.W. Veenman was appointed by the General Meeting of Shareholders as supervisory director. The Minister of Economic Affairs approved the proposed appointment as stipulated in the Netherlands Electricity Act 1998. All of tenneT's supervisory directors have independent status as defined in article III.2.2 of the Corporate Governance Code.

## Corporate Governance

The Supervisory Board is delighted to announce tenneT's decision to proceed with the implementation where possible of the Tabaksblat Committee's Corporate Governance Code. This prompted the adoption within tenneT, in 2004, of a set of Supervisory Board Regulations, a retirement rota for supervisory directors and a set of Whistleblower Regulations, in addition to which a Supervisory Board profile was duly prepared and an Audit Committee launched. A corporate code has additionally been drafted, to be implemented throughout the organisation.

Reference is made to the chapter on corporate governance included elsewhere in this annual report where the particulars of the above changes and the strengthening of internal control are concerned. All relevant documents are additionally available for inspection on the tennet website, at [www.tennet.org](http://www.tennet.org).

## **Audit Committee**

The Audit Committee, which is made up of Messrs Griffioen (as Chair) and Vugts, met on two occasions in 2004, both meetings being attended by the Board of Management and by PricewaterhouseCoopers as the company's external auditors. Attention was devoted to the following topics at these meetings:

- result for the financial year 2003 and funding strategy for 2004;
- management letters for 2004 by the external auditors for tennet and each of the group companies;
- annual plans for 2005 for tennet and for each of its group companies;
- proposed implementation of IFRS (International Financial Reporting Standards);
- current status of discussions with the Inland Revenue regarding tennet's fiscal opening balance sheets;
- set-up of internal risk management and control systems;
- developments in the association with the external auditors.

The outcome of the Audit Committee meetings were discussed at Supervisory Board level.

The Supervisory Board,  
R.E. Selman, Chair  
C. Griffioen, Deputy Chair  
J.F. van Duyn  
J.F.T. Vugts  
A.W. Veenman

April 2005

**Gerrit Boudewijn, project coordinator**

*'The size of the project sets it apart. As it is subject to phased implementation, you can't help being acutely aware in your work of the various project components. We do everything we can to be as clever as possible in the design and sourcing. The whole project team is chuffed at having saved as much as five million euros, some 30%, on a particular underground waterway pass. At the end of the day, it's the users of electricity who foot the bill, and that's all of us.'*

**Jan de Jong, grid planner**

*'As a planner, I'm forever ironing out sticking points. After all, we can't allow the lights to go out, and this is exactly what the "Randstad380" project is all about. Owing to the sheer size of the project, loads of different people are involved, which makes it especially gratifying to see the closeness of collaboration. Professional team work, that's our motto.'*



# Randstad380: Ring-shaped power supply for Randstad region



As soon as tenner identifies the first signs of demand for power being set to surge, it starts making the first plans. This also applies to the Randstad region. In order to safeguard the reliability of supply in this, the Netherlands' most densely populated area, tenner as early as in 2001 launched a mega-project under the name 'Randstad380', which at national level is by far the largest project it is currently involved in. The first stage of the 'Randstad380' project, which comprises the link between Maasvlakte and Westerlee station, is in full swing.

The price tag? Some 400 million euros. The end result? New, upgraded high voltage lines boasting sufficient capacity to enable the transmission of electricity throughout the Randstad region, to safeguard the reliability of supply in the medium term.

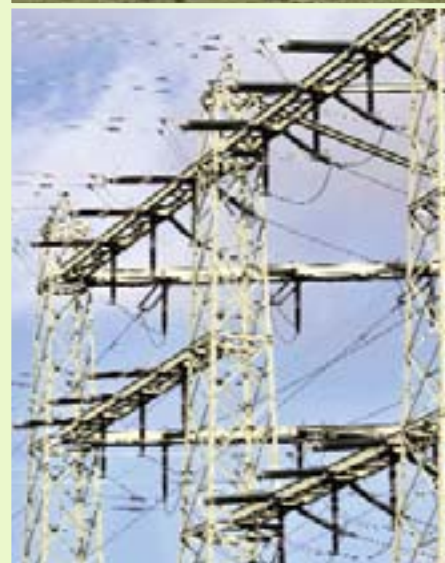
The first stage of the project is scheduled for completion by July 2005, and comprises the upgrading of the line between Maasvlakte station and Westerlee station in combination with the construction of a new line underneath Nieuwe Waterweg and Calandkanaal. The line will subsequently be extended to Wateringen and on to Bleiswijk, resulting by 2009 in a loop in the southern part of the Randstad region.

The northern loop is scheduled for completion by 2012. The existing high voltage line between Diemen and Beverwijk will be upgraded in 2006. Another six years and the pièce de résistance of the 'Randstad380' project should be completed: the connection of the stations at Bleiswijk and Beverwijk, which are some 60 kilometres apart. The entire route through the Green Heart area is yet to be mapped out, which is bringing particular pressure to bear on the physical planning aspects of the constituent project, as negotiations with provincial authorities, municipalities and other land owners tend to take many years to complete.

In 2001 grid administrators tenner and TZH established more or less simultaneously that power demand in the Randstad region was on the up and up, mostly due to changing production methods in greenhouse farming. Plans were made and the final report of a feasibility study gave the go-ahead for phased implementation in December 2002.

It is a distinct possibility that market players may in the near future source more of their electricity abroad or that offshore wind farms are erected. These are examples of changes that would affect the 'Randstad380' plans. With this in mind tenner with the approval of DTe has opted in favour of segregating the preparatory work from the actual implementation of the project. Preparations for proposed expansions are elaborated where they can, especially in terms of physical planning; however, the setting of the time frame for actual implementation (which usually accounts for 90% of aggregate costs) is something which is delayed until the latest possible moment.

On the picture: left Henk Sanders, right Raymond Berentsen (tenner)



# Financial results

## Result

The result from ordinary activities after taxation came out at EUR 58.0 million in 2004, an increase of 13.7% compared to 2003 (EUR 51.0 million). This improvement was largely due to the consolidation of B.V. Transportnet Zuid-Holland (TZH) for the whole of 2004.

## Turnover

Total turnover amounted to just under EUR 416 million in 2004 (2003: EUR 358 million), an increase of 16%. This increase was largely due to the integration of the TZH business with effect from 18 December 2003.

## Operating expenses

Operating expenses increased by 10% to EUR 303.8 million in 2004. This was largely due to the full consolidation of TZH.

## Balance sheet

The balance sheet total increased by EUR 150 million to EUR 1,862 million. This was largely due to the larger volume of energy exchange transactions and the associated provision of collateral.

### Balance sheet items

The balance sheet includes certain items arising from specific activities conducted by tenet and its subsidiary companies which have a significant impact on the balance sheet total. These items are explained below.

#### *Securities and cash at banks and in hand*

Securities and cash at bank and in hand totalled EUR 603 million in 2004. Some EUR 18 million of these funds are freely disposable by tenet, while the remaining EUR 585 million are restricted.

#### *Corporation tax*

tenet became liable for corporation tax on 1 January 1998. It was subject to the zero rate until 2001 inclusive, but since 2002 the standard corporation tax rate has applied. Detailed discussions took place between tenet and the Tax Department in 2003 and 2004 on the valuation of assets and liabilities in the opening balance sheet for tax purposes. Talks are currently under way to seek agreement on the outstanding items. Within the framework of determining the opening balance sheet for tax purposes, discussions will start with the Tax Department in 2005 on the valuation of the assets and liabilities of TZH. A deferred tax receivable of EUR 62 million has been included in the balance sheet.

### International Financial Reporting Standards

With a view to the possible application of International Financial Reporting Standards (IFRS) in the future, tenet in 2004 began identifying the implications of these new standards for its internal and external reporting. Preparations are being made throughout 2005 aimed at realising these adjustments, which will mainly affect the valuation of tangible fixed assets, expenses related to staff, and the accounting of financial instruments. It is too early to comment on the consequences of the introduction of IFRS on equity and the results.

### Ratios

tennet's funding strategy is aimed at remaining a financially strong company with a low risk profile, as is appropriate for largely regulated activities. tennet also wants to retain its strategic flexibility with the help of financial products that fit in with this low risk profile. To this end various targets have been set within the financial framework. These targets are explained below.

#### *Solvency*

The solvency ratio, that is, the ratio between shareholders' equity and the adjusted balance sheet total (i.e. the balance sheet total less restricted resources, including investment contributions, and receivables from energy exchange transactions), stood at 41.6% in 2004 (2003: 35.1%). If the higher regulated value of tangible fixed assets (around EUR 350 million) were included, the solvency ratio would be 53.7%.

#### *Profitability*

tennet aims for a level of profitability that is at least equal to the regulated return. The return on average total assets came to 12.0% in 2004 (2003: 10.1%). The profitability ratio, like the solvency ratio, is calculated on the basis of the adjusted balance sheet total. The return on average shareholders' equity came to 16.3% in 2004 (2003: 16.2%). If the higher regulated value of tangible fixed assets (around EUR 350 million) were included, the return on average total assets would be 9.6% and the return on average shareholders' equity would be 9.9% (2003: 9.4%).

#### *Interest cover*

Interest cover decreased in 2004 compared with 2003, from 18.2 to 12.8, owing to the increase in interest payments arising from the acquisitions made in 2003 (in particular TZH).

## Cash flows and finance

### Cash flows

The cash flow from specific activities related to auctions, energy exchanges, MEP subsidies and maintenance of the energy balance amounted to EUR 2.3 billion gross and EUR 31 million net in 2004. These funds are not freely disposable by tennet.

The cash flow from operating activities amounted to EUR 142 million in 2004, compared with EUR 134 million in 2003.

The cash flow from investing activities amounted to EUR -96 million in 2004, compared to EUR 312 million in 2003. These activities related mainly to investments in tangible fixed assets.

Cash flow from financing activities amounted to EUR -121 million in 2004. These activities related mainly to newly contracted loans, dividend payments and withdrawals from amounts received in advance.

### **Loans and capital structure**

New four-year loans for EUR 50 million, five-year loans for EUR 200 million and a 364-day facility of EUR 175 million were contracted in mid 2004, to enable repayment of EUR 350 million in existing loans and credit facilities. The new loans were taken out in bilateral agreements with Barclays, BNP Paribas, Citibank, Fortis, ING and JP Morgan.

tennet provides funding to its subsidiary companies on market terms and conditions.

### **Long-term funding strategy**

tennet's long-term funding requirement is closely associated with the company's strategy of 'Strengthening and building'. The funding requirement may add up to EUR 2-3 billion if the acquisition of the transmission grids and the realisation of projects such as Randstad380 and the cable links between the Netherlands and Norway and the United Kingdom go ahead. As soon as necessary, TenneT intends to raise the additional loans on the European capital market.

### **Treasury and funding policy**

Treasury policy seeks to manage the money flows, protect group equity against financial risks, and maintain easy access to the capital market. tennet communicates with its funders by providing them with information on a regular basis and by conducting regular discussions with the shareholder and lenders. tennet's funding policy seeks to match the capital structure to both the long-term nature of the assets and the debt-servicing terms set by the Office of Energy Regulation (DTe).

### **Outlook for 2005**

tennet expects its operating result for 2005 to come out at more or less the same level as in 2004. This projection is based on the following three considerations:

- Both turnover and the result follow a reasonably predictable pattern, owing to the regulated nature of tennet's activities.
- The asset management model implemented by tennet is yielding efficiency gains, which will allow the company to achieve its cost-cutting targets while maintaining the quality of its services within a managed risk profile.
- tennet deals with three regulatory regimes determined by the DTe, namely regulation of turnover for transmission services in relation to the 380/220kV grid, yardstick regulation for transmission services in relation to the 150/110kV grid, and a cost-covering system in relation to the system services. The efficiency discount set by the DTe (the 'x factor') results in a target of cutting the operational expenses of transmission services by 3-4% per year.

The realisation of major infrastructure projects, such as Randstad380 and the cable link between the Netherlands and Norway, will create a temporary additional funding requirement over the coming years. tennet is currently investigating the possibilities of obtaining loans from the European Investment Bank (EIB).



**Bart Rotte, construction manager**

*'The underground waterway pass comprises much more than just drilling a couple of big boreholes. Because of the exceptional nature of the project, we first had to negotiate an extensive permit path. Tendering procedures took a long time to complete, and we had to provide for a secure building site before drilling could get under way. As construction manager, I found myself having to cope with all sorts of things, but that only made the job a greater challenge. I would not hesitate to say that we have done very well as a team.'*

**Bas Wegbrans, Pirelli Cables & Systems project manager**

*'We have always considered this assignment as a challenge to our company, and have deployed all our know-how and all our plant's possibilities in the process. The long and heavy cable in combination with a water circulation system combines into something quite unique. It's a wonderful thing to be able to forge different techniques into a single reliable and secure system that does what it has been designed to do, guaranteed by our professional expertise, and it's quite appropriate that we should be proud of our achievement.'*



# Innovative and efficient underground waterway pass near Europoort



Although the construction of a 380kV interconnection underneath Nieuwe Waterweg and Calandkanaal near Europoort somehow pales into insignificance when compared with the extensive 'Randstad380' project, for those who are involved it nevertheless qualifies as an exceptional undertaking, and one which they describe as unique and innovative.

The plans for a underground waterway pass are far from new: in fact, the connection was first foreseen in the 1970s. However, it was not until the 'Randstad380' project was being worked up that the whole thing started to crystallise and the question presented itself as to how the connection had best be constructed: as an overpass or an underpass? Pylons were designed with a height of 125 metres, which according to the Rotterdam Port Authority was not tall enough, as some drilling platforms to be towed into the harbour tend to be even taller. After much deliberation it was decided that an underpass would be the only solution.

It was generally agreed that this was going to be a far from simple challenge. The first exploratory drilling, in September 2004, was turned into something of a celebration as it also heralded the launch of the 'Randstad380' project. The drill chuck burrowed its way into the soil, noisily throwing up vast amounts of mud as it disappeared from sight, to produce the much-anticipated borehole.

The underground waterway pass, whose maximum depth amounts to some 40 metres, consists of two sections, the first of which stretches from the shore at one end to a neck of land situated between Calandkanaal and Nieuwe Waterweg while the second cuts across to the other shore. During drilling, it was the measuring devices in the drill chuck which had to be relied upon, as visibility was negligent. The connection, which has a total length of 2.2 kilometres, comprises two parallel circuits each of which contains three 380kV cables and a chunky copper conductor, together forming 13.5 kilometres of high voltage interconnection. The most innovative element is the water circulation system that discharges the heat produced by the cables – a highly efficient technique and a global first in combination with power cables, not to mention a cost-effective solution, as a considerably more heavy-duty interconnection would have been called for, at considerably greater cost, had it not been for the water circulation facility.

Implementation is proceeding according to plan, turn-key hand-over of the underground waterway pass as part of the Maasvlakte-Westerlee section of the 'Randstad380' project being scheduled for July 2005.



## January



### Norwegian high voltage cable gets second wind

tennet together with Norway-based Statnett has revitalised the plans for the construction of a high voltage interconnection to enable the import and export of electricity between Norway and the Netherlands. The original project participants, NEA and Statkraft, have officially terminated their partnership and in doing so, paved the way for tennet and Statnett to launch a feasibility study into a connection that is not subject to power generation commitment. tennet and Statnett have identified genuine scope for the cost-effective exploitation of the transmission cable on condition that the latter should be available for use by the full complement of market players.

### Parachutists jump off high voltage pylon, are taken into custody

Having base jumped off a tennet-owned electricity pylon in Ens and successfully negotiated a parachute-assisted landing, three daredevil parachutists are duly apprehended by Flevoland police. According to Dutch law, parachute jumping requires permission and can only be done from an aeroplane, in addition to which a ban applies to scaling high voltage pylons.

## February



### tennet publishes magnetic field position paper

The submission to the Lower House of the Dutch Parliament by the State Secretary for the Environment, Van Geel, of a memorandum on the topic of magnetic fields gives a fresh impulse to the debate on the hazards of such fields alongside high voltage lines. tennet on 6 February releases a position paper setting out its views on the subject. In this paper it is stated that the right balance between reliability of supply, care for the community and the associated costs of the transmission grid should be struck at national level, to produce limiting values that should be as concrete as possible, for subsequent anchoring in legislation. The consequences of the policy could then be allocated to the tariffs and as such, be distributed between the various users of the high

voltage grid. The position paper is available for downloading from the tennet website, at [www.tennet.org/publications/positionpapers](http://www.tennet.org/publications/positionpapers).

## March



### CertiQ imports foreign Guarantees of Origin

The international transfer of Guarantees of Origin has been an option since 17 March, on which date a standard was adopted for the international transfer of the certificates. EECS, the European Energy Certificate System, in which tennet subsidiary CertiQ features prominently, sets standards to be applied to the information to be included in the certificates. The import of Guarantees of Origin enables the supply of sustainable electricity having been generated abroad to Dutch end users. The certificates qualify for partial eco tax exemption provided specific conditions are met, including the physical injection into the Dutch grid of the volume of electricity having been generated. During the opening week CertiQ imports foreign Guarantees of Origin representing 88,500 MWh in 'green' power having been generated by several biomass plants in Finland.



### tennet publishes first inventory of operational capacity

tennet publishes an inventory of Dutch-based operational power generating capacity, as the first visible effect of the new Netherlands System Code. The generating companies having submitted, prior to 15 March, data concerning the operational capacity and the type(s) of fuel used, it is up to the energy companies every three months to update the information pertaining to all generating units having a capacity of 5MW or more for the next 12 months. The energy companies will furthermore be under the obligation, with effect from 1 May, to disclose the capacity that is actually available. tennet needs this up to date information concerning the available Dutch generating capacity in setting the regulating and reserve power, which in turn is crucial in preserving the energy balance (this being the demand and supply balance in the electricity grid). tennet on its website uses these data to show the aggregate quantity of regulating and reserve power available in the Netherlands, the idea being that this should make it

easier for market players to decide whether they should offer generating capacity to tennet for the purpose of energy balance preservation and if so, at what price. This should enable the imbalance market to operate more smoothly. You will find the information concerning the availability of generating capacity on the tennet website at [www.tennet.org/other/Production](http://www.tennet.org/other/Production) data.



### **Ministerial plans define electricity market structure**

Economic Affairs Minister Brinkhorst charts unambiguous guiding principles to govern the structure of the electricity market. The Minister is in favour of introducing a distinct segregation between infrastructural administration on the one hand and high-risk commercial operations on the other, with special attention being devoted to the transmission grid as the 'backbone' of power supply in the Netherlands. According to the new plans, all grids upwards from a minimum of 110kV will be placed under the administration of tennet. This represents a major milestone from a supply reliability perspective. tennet considers it to be crucial that a clear distinction should continue to be made between distribution grids on the one hand and transmission grids on the other. A majority of Dutch MPs appreciate the urgency of a single transmission grid being formed. Sections of the 50kV grid also serve a transmission purpose, and are run as such.

## **April**

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## **May**

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### **tennet answers key questions raised by politicians concerning imports and exports**

On 6 May, tennet on its website publishes a document in response to 'key questions' on the theme of power imports and exports in the European market landscape, primarily to accommodate politicians and authorities as these frequently find themselves facing questions on the subject. The document addresses the following topics: computation and distribution of capacity, scope of capacity and plans for expansion, international coordination by Transmission System Operators, and the influence of imports and exports in

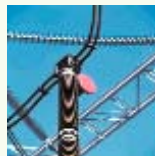
terms of reliability of supply. tennet may in future decide to publish similar documents in response to frequent questions on a particular topic. Its explanatory notes on the topic of imports and exports are available for downloading from the tennet website, at [www.tennet.org/Publications/Technical](http://www.tennet.org/Publications/Technical) publications.

### **APX celebrates fifth anniversary**

APX celebrates its fifth anniversary on 25 May. A total of 45.3TWh has been traded on the Dutch day-ahead market since APX was incorporated.

## **June**

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### **Netherlands Court of Audit publishes 'Green power' report**

On 9 June the Netherlands Court of Audit presents its report entitled 'Green power' to the Lower House of the Dutch Parliament, having investigated the Dutch policy from mid-1999 onwards aimed at boosting the use of 'green power' and the adjustment of the policy from 2003 onwards as the year in which the MEP Regulation (which deals with the environmental quality of electricity generation) was introduced. The report reveals that the targets of the 'green power' policy are not in sync with one another, the authorities having formulated a consumption target in some cases and a generation target in others. It remains unclear under the current policy whether the EU-set target, according to which nine percent of electricity in the Netherlands should be sustainably generated by 2010, will be met. Moreover customers are given insufficient information by their energy suppliers on the green power they source. Although the 'green power' policy has improved since the implementation of the MEP Regulation in 2003, further improvements are called for if the policy targets are to be met. tennet subsidiary EnerQ has been in charge of implementation of the MEP scheme since mid-2003.



### **APX, Endex and Fluxys launch gas exchange in Belgium**

On 23 June APX, Huberator (a subsidiary of Belgian gas network administrator, Fluxys) and Endex (the derivatives exchange) sign a joint venture agreement for the incorporation of a physical and financial gas market at Zeebrugge, in Belgium. The three parties

having previously, on 3 March, signed a letter of intent. The gas exchange will accommodate both same-day and forward transactions. APX is to maintain the trading platform as well as supplying the clearing services, with Huberator ensuring the physical consummation of the transactions. The exchange will initially only facilitate the trade in short-term contracts, such as intra-day contracts for same-day transactions and day-ahead contracts for next-day delivery, and will furthermore be accommodating contracts for next-week delivery. Long-term contracts may be added to the range in due course. The gas exchange is being launched in early 2005.



at its own stations. It takes only a few hours to restore power to the entire area, in close collaboration with ENECO.

### Code Red renamed Phase 2

tenner is replacing the term 'Code Red' with 'Phase 2', with Code Green and Code Amber being renamed Phase 0 and Phase 1, respectively as it has been agreed at international level that these colour codes should henceforth be used to define the various levels of terrorist threat.

Phase 2 (the former 'Code Red') is one of the three codes used in the action plan for cooling water restrictions, which kicks in as soon as the temperature of the water in the river Rhine near Lobith (near the German border) has topped 23 degrees centigrade. As power plants heat up the cooling water they use by an average of 7 degrees centigrade, this would push up the temperature of the water in the rivers beyond the environmental threshold of 30 degrees centigrade. A ban on cooling water discharge would then come into force, with power plants having to scale down generation. As long as Phase 0 is in force, the aggregate regulating and reserve power to be deployed by tenner within the next eight hours is still greater than 1,400MW. Phase 1 implies that it has dropped below 1,400MW but that the amount of power on hand within the next 30 minutes is still greater than 700MW. Phase 2 implies that the reserve power to be dispatched by tenner within the next 30 minutes has dipped below the 700MW mark, as the sort of level which a single power plant of fairly generous proportions would account for.

## July



### Integration of tenner and TZH completed

The integration of tenner and Transportnet Zuid-Holland (TZH) is officially being completed on 1 July. The two businesses have invested considerable effort in recent months to their integration, in addition to acquitting themselves of their regular duties. The organisational set-up has also been improved in the wake of the integration, with even more unambiguous segregation having been provided for between the infrastructure of the high voltage grid on the one hand and balance preservation in the grid on the other.

The transfer to tenner of the shares in regional grid administrator, TZH, took place on 18 December 2003, thus presenting tenner with 680 kilometres' worth of high voltage lines (500 kilometres of 150kV grid and 180 kilometres of 380kV grid) and 21 stations in the province of South Holland. The 100+ TZH staff have transferred to tenner, boosting the latter's staff numbers to just over 400.

### Krimpen phase shifter catches fire

On 1 July fire breaks out in a phase shifter at a distribution centre in Krimpen. tenner switches off the station at the moment the fire service starts putting out the fire, resulting in a black-out affecting over 20,000 homes in and around Capelle aan den IJssel, the first of which are reconnected within 30 minutes owing to power company ENECO succeeding in reaching part of Krimpen by carrying out switchings



### CO<sub>2</sub> index regulation

1 July has been set as the date of introduction of the CO<sub>2</sub> index. tenner subsidiary CertiQ issues CO<sub>2</sub>-neutral certificates for electricity generated using CHP (combined heat and power). The CHP-generated electricity is related to the environmental performance of the relevant CHP plant. In future CHP certificates will only be issued in respect of carbon dioxide-neutral CHP electricity, i.e. electricity which the CHP plant generates additionally while emitting the same level of carbon dioxide compared with the separate generation of heat and power. Having

commissioned the complete overhaul of its external application, CertiQ is now ready to process even greater numbers of certificates.



### **Integration of APX's British power exchanges**

6 July has been chosen as the date of the integration of the two British power exchanges, APX UK and newly acquired UKPX as a wholly owned subsidiary of APX B.V. UKPX, which was launched in 2000, is the United Kingdom's largest power exchange. The integrated power exchange is given the brand name UKPX by APX Group, its legal name being APX Power Ltd.

### **'Quatorze Juillet' celebrations prompt tennet to restrict import capacity**

tennet will be restricting the Dutch import capacity to 3,000MW on 14 July (Bastille Day). On this French national holiday, power consumption in France tends to dip, thus enabling the country to export more power, which in turn tends to bring an extra load to bear on France's cross-border interconnections with Belgium. The joint grid administrators, Elia of Belgium, RWE Net and E.ON Netz of Germany and tennet of the Netherlands, will as a precautionary measure scale down their import capacity for the day while leaving the export capacity intact, at 3,600MW.



### **tennet refinances EUR 425m with consortium of banks**

tennet is contracting loans for a total of EUR 425m with a variety of banks, so as to be able to redeem the bridging loan for its acquisition of TZH as well as repaying part of its existing loans, and for regular investments in the transmission grid. The loans have been individually taken out with the following national and international banks: Barclays, BNP Paribas, Citibank, Fortis, ING Bank and JP Morgan. The interest throughout the term of the long-term loan has been fixed so as to inject stability into the management of the business and minimise the risks.

### **Trade in Guarantees of Origin via electronic platform**

30 July is the date on which the first Guarantees of Origin are traded via CertiChange as one of the electronic trading platforms coming under the

umbrella of New Values, the shares in which are held by tennet and Rabobank Netherlands. The trade in these 'Green Certificates' offers an effective tool for many businesses to put their environmental policy into practice. Several large companies from the electricity industry participate in the initial trading session. Certificates based on a variety of technologies (hydropower, biomass and wind) have been offered and requested in the order book, both with and without eco tax. The order book shows a demand of approximately 13,000MWh.

Guarantees of Origin were first devised as an incentive for the development of sustainable energy. In the Netherlands, they are registered in the systems operated by CertiQ. They are the legal successors of the former 'Green Certificates', as proof of electricity actually having been generated on a sustainable basis. They thus carry a certain economic value and can be used to be traded. To date Guarantees of Origin have only been traded on a bilateral basis, with the supply and the demand side getting in touch with one another to come to a mutually acceptable arrangement to be laid down in a contract. The advantage of having a trading platform is that this can be used by greater numbers of buyers and sellers, each at their own workstation, to meet up and enter into anonymous negotiations, thus conferring transparency and clarity on prices. The platform provides for the comprehensive administrative, legal and financial processing of the transactions, as a source of significant assurance, not to mention cost savings, for the trading parties.



### **Replacement of Zeyerveen phase shifter**

In July the interstage phase shifter at Zeyerveen station, near Assen in the northeast of the Netherlands, called it quits after almost 40 years of faithful service. As no new phase shifter was on hand, it was decided to use one of the spare phase shifters stationed in Zwolle – something of a daunting prospect given the phase shifter's mammoth weight of 280 tonnes or so. The extensive logistical operation having taken just over two months to complete, reliability of supply has now been restored. It concerns a temporary solution, as a new phase shifter is scheduled to come on stream in October 2005.

## August



### **tennet activates action plan for cooling water restrictions**

On 2 August the surface water temperature near Lobith, where the river Rhine crosses the German-Dutch border, structurally hits the threshold level of 23 degrees centigrade, prompting tennet to activate Phase 0 of the action plan for cooling water restrictions, which continues to apply for the next two and a half weeks or so until it is cancelled on 19 August.

### **Go-ahead for upgrading of tennet grid in North Holland**

On 2 August DTe, the Dutch Office of Energy Regulation, gives the go-ahead for the funding of the planned upgrading of tennet's high voltage grid north of Amsterdam from 150kV to 380kV for the section between Diemen, Oostzaan and Beverwijk. As the demand for power in the Randstad region is expected to surge over the next few years, tennet intends to safeguard the reliability of supply in the Amsterdam region by upgrading the high voltage grid, which moreover will open up additional opportunity for generating companies that generate electricity at a great distance from the Randstad area to inject their power into the grid, as something which in addition to improving the market mechanism will also enable a capacity increase, thus boosting supply reliability.



### **MEP interim evaluation**

On 31 August the Minister of Economic Affairs presents the outcome of the interim evaluation of implementation of the MEP Regulation (which deals with the environmental quality of electricity generation) to the Lower House of the Dutch Parliament. Questions were raised as early as at the MEP decision-making stage to which no adequate answers were available at the time owing to the lack of practical experience. This is why it was decided to stage an interim evaluation, in the context of which particular attention was devoted to implementation aspects and policy blanks. The policy aimed at promoting sustainable energy is to be evaluated in terms of its objectives in 2005.

## September



### **Construction of new high voltage lines in Randstad region**

tennet launches the construction of a new high voltage line in the context of the 'Randstad380' project, to extend the Maasvlakte grid via Bleiswijk to Beverwijk. The preparation and implementation of the project will take about ten years to complete. Initial preparations were launched in 2002. The southernmost section of the project, between Maasvlakte and Westerlee, is scheduled for completion by late 2005. Construction will create two ring-shaped high voltage grids, one in the southern and one in the northern Randstad region, to strengthen the infrastructure. The two rings are moreover to be connected to the national high voltage grid. Investment in the upgrading of transmission capacity is necessary in order if the reliability of supply is to be safeguarded into the future, as well as being crucial to enhancing system security.



### **Elia, APX and Powernext join forces in Belpex**

On 30 September tennet subsidiary APX, Belgian grid administrator Elia and Powernext, the French power exchange, conclude a partnership agreement aimed at incorporating a Belgian power exchange named Belpex. The three markets are to be linked using a new market coupling mechanism.

The electricity exchange enhances the functioning of the Belgian electricity market. The launch of Belpex represents a major milestone in the integration of the European electricity markets. For the first time three European power exchanges will be coupled using a power trading mechanism. The coupling of the markets of Belpex, APX and Powernext is a necessary step in achieving sufficient supply and demand on the Belgian power exchange. The link enables demand and supply on the individual exchanges to be pooled irrespective of the point of entry.

## October

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### **tennet publishes Balance Delta**

Research carried out jointly by tennet and DTe has shown the discrepancy between the demand for and supply of regulating and reserve power to have slipped in 2003 compared with 2002. In order to step up the supply of such power, tennet has decided to publish the Balance Delta on its website, thus providing market players with information on the basis of which they can check out the current status and the level of imbalance for themselves. tennet registers the history on a minute-by-minute basis and shows it on its website every 30 minutes. Under the old set-up only generating companies that were already earmarking power for tennet had this information at their disposal. The publication of the Balance Delta will enable all players to decide for themselves whether it would be opportune for them to supply power to tennet. It is tennet's intention with this initiative to ensure that more power is made available. Information will also be included in the balance, with effect from January 2005, concerning the activated reserve and emergency power. The Balance Delta can be consulted on the tennet website, at [www.tennet.org/System services/Balance information](http://www.tennet.org/System services/Balance information).



### **Brochure on electrical and magnetic fields**

tennet considers it important from a community perspective that greater insight should be provided into electrical and magnetic fields alongside high voltage lines. To this end it publishes a brochure, on 28 October, entitled 'Electrical and Magnetic Fields'. The brochure is intended for local residents who have questions regarding the consequences of living in close proximity to a high voltage line, providing answers to frequently asked questions such as 'What are electrical and magnetic fields?', 'Do they pose a health hazard?' and 'Have the authorities imposed a maximum on field strengths?'. In addition to answering these questions, the brochure also sets out tennet's magnetic field policy and explains how this is dealt with in practice. The brochure is available for downloading from the tennet website, at [www.tennet.org/Publications/Corporate brochures](http://www.tennet.org/Publications/Corporate brochures).



*People are exposed to electrical and magnetic fields and in a variety of ways, for example when they use an electric shaver, hair dryer, microwave oven or personal computer or when they watch television. The potential effects of human exposure to magnetic fields in relation to high voltage lines are a source of social concern and debate, particularly where it concerns the impact on children. Unsure of the potential effects of high voltage lines, local residents tend to judge these uncertainties in different ways.*

### **Publication of import and export capacity**

On 5 October tennet posts a document entitled 'Development of import and export capacity for the market' on its website, in which it sets out the projected development over the coming years of the available transmission capacity on the cross-border interconnections between the Netherlands and neighbouring countries and lists the relevant scenarios in this context. The document can be consulted on the tennet website, at [www.tennet.org/Transmission services/Cap. Cross-border interconn](http://www.tennet.org/Transmission services/Cap. Cross-border interconn).

*The administrators of the European transmission grids seek to ensure maximum availability of the transmission capacity that is on hand on the cross-border interconnections to market players. Investment and collaboration are ways of improving this. The Dutch import and export capacity that is available to be used by the free market is co-determined by conditions prevailing in neighbouring countries.*

## November

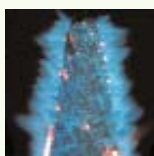
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### **CDA publishes report on segregation of energy companies**

On 4 November the scientific institute of CDA, the Christian Democratic Party, publishes an energy report in which it advocates the formation of a single national transmission grid; the distribution grids should continue to be owned by power companies such as Nuon and Essent while tennet should secure title to the transmission grids upwards from 50kV. The pooling of all transmission grids – most of which are currently still held by power companies – under a

single administrator would enhance reliability as well as rendering maintenance more efficient, which in turn would benefit the cost-effectiveness of transmission.



### **APX and GTS conclude agreement on Dutch gas exchange**

On 18 November APX B.V. and Gas Transport Services B.V. (GTS) concludes an agreement paving the way for a Dutch gas exchange on the virtual platform, 'Title Transfer Facility' (TTF), the two parties having previously, in May, committed to a Memorandum of Understanding. The first Dutch gas exchange is to be launched early 2005, and is being set up and administered by APX. The gas stock exchange enables players in the gas market to engage in same-day and forward transactions using GTS's virtual trading platform, TTF. This is to be done using the APX trading system, which enables on-line transactions on a basis of anonymity and subject to comprehensive clearing. The new gas exchange will make it possible for participants to inject greater flexibility into their portfolios, thus making it easier for them to take advantage of the benefits of the liberalised gas market. GTS will continue to facilitate the OTC (over the counter) trade that is already taking place via TTF, and which involves prices being achieved through bilateral contracts. On 20 January 2005 Economic Affairs Minister Brinkhorst formally appointed APX as the Dutch gas exchange.



(the latter being the Regulation for Random Amortisation of Environmental Investments) has created a risk of grants accumulating beyond the caps applying on the strength of the European Environmental Relief Framework, such excessive support being at odds with the Framework and with articles 87 and 88 of the EC Treaty. According to the Framework, a maximum of 40% in investment aid and 100% in operating aid apply to the specified additional costs of an environmental project. It is with this in mind that the Minister in his policy guidelines has charged tenner (EnerQ) with offsetting excess grants against the MEP grant. An accumulation assessment is carried out so as to ascertain whether excess grants have been made available, to be carried out by SenterNovem.

### **NorNed**

On 23 December DTe, the Dutch Office of Energy Regulation, gives the go-ahead for the construction of a 700MW high voltage interconnection between Norway and the Netherlands. On 30 December tenner and Norwegian-based Statnett sign an agreement dealing with this, the NorNed cable. The construction of the interconnection inclusive of preparations and actual connection will entail a total investment of just over EUR 600 million. The cable is to be laid along the seabed, and will have a length of 580 kilometres. It is being constructed to enable the import and export of electricity, in line with the EU policy of market coupling and enhancing market liquidity. tenner is making a start on cable construction in January 2005. The interconnection is scheduled to come on stream in late 2008.

*In Norway 99% of all electricity is generated using sustainable hydropower whereas in the Netherlands, generating plants mostly use fossil fuels. The cable between the two countries would enable better use being made of Dutch generating plant during the night while during daytime peak hours use could be made of Norwegian hydropower. The project is in line with the European Commission's policy of strengthening the trans-European grids.*

## **December**



### **Assessment of promotion of sustainable energy**

On 4 December the Minister of Economic Affairs publishes the 'accumulation assessment of operating support for sustainable energy plant' policy guidelines. The option has been available since 1 July 2003 to apply for a MEP grant. EnerQ is in charge of implementation of the MEP scheme, which deals with the environmental quality of electricity generation. The MEP grant has been introduced as a tool for bridging the uneconomic excess compared with regular 'grey' power. The concurrence of several financial incentive schemes including the CO<sub>2</sub> reduction scheme and the MEP and VAMIL schemes



**Hans Greven, designated station specialist**

*'Although failure is never a good thing from a company perspective, we consider projects such as that in Zeyerveen as the icing on the cake. Although they have been hectic months, it was an absolute blast for all of us. Everyone was highly motivated. We were all on tenterhooks when the spare phase shifter was switched on – although the testing protocol had been successfully completed, you can't really predict how these old bangers will react when you switch on the power. We were quite relieved to see everything go swimmingly.'*

**Ruud Tuijten, planner/preparations operative**

*'My professional involvement is always a distant one. It was clear right from the start that we would have to free up several people for this challenge, and so some maintenance work elsewhere had to be temporarily suspended – a matter of prioritisation and adjusting one's planning. The Zeyerveen operation has gone according to plan and, better still, to budget.'*



## Zeyerveen station all set after daunting transport challenge



As soon as the report of a failure at Zeyerveen station was received by Essent's engineer on call, what had started out as a lazy Sunday afternoon would never be the same again. The situation turned out to be fairly serious, in that it had to be established in consultation with specialists from tenner and Smit Transformers that the 220/110kV interstage phase shifter, which had been in service for nearly 40 years, was beyond repair and as such, in need of replacement. A temporary solution was opted for in order to safeguard the reliability of supply.

The parties decided that one of the spare phase shifters at Hessenweg station, near Zwolle, which had been sitting idle for two years, should be taken to Zeyerveen, a hamlet near Assen. The mammoth weight of the phase shifter, at 280 tonnes (the equivalent of two Boeing 777s!), made this a daunting transport challenge.

The move was meticulously prepared, with specialist companies such as Mammoet Transport and Smit Transformers being enlisted, trees along roads trimmed to clear the way and soil consolidation work carried out. Large cranes were brought in, among other things for lifting the phase shifter onto a barge, as part of the route would be negotiated by water. While the phase shifter at Hessenweg station was stripped as bare as possible to enable it being transported, a huge hole in the ground was dug at Zeyerveen to act as a temporary resting place for the broken phase shifter, for subsequent dismantling and removal to the scrapyard.

The provincial authorities of Drenthe insisted at the last minute that attention be devoted to noise abatement, as the spare phase shifter from Hessenweg station was louder than the old Zeyerveen phase shifter. An extra soundproofing wall was erected within two weeks' time as a noise abatement measure. Actual transport took place in September, and the ensuing assembly work went according to plan. As the work entailed the replacement of cables and housings in an environment where some components are always live, the work required the utmost caution: failure of the live phase shifter would have blacked out all of Assen and the surrounding area. The job was successfully completed on 2 October 2004, when the phase shifter was taken into use. Reliability of supply had been restored just over two months after the original failure.

As Zeyerveen station is currently kept afloat using two ageing phase shifters, this is only a temporary solution, with a definitive one to follow. tenner is launching the tendering procedure for the purchase of a new phase shifter in 2005, to be ready to go live in October 2005.



# Projects

tennet is continuously involved in the optimisation of the infrastructure, by putting in place a reliable grid that matches the transmission options in the Dutch and international market. Below please find a summary of projects that are new and projects that are already under way.

## New projects

### Power quality

tennet in response to requests from the energy market will be performing measurements of the quality of the voltage in the high voltage grid. Measurements will be carried out to this end on the interfaces between third parties and the grid. The results will provide an insight into the voltage quality. Having looked for the appropriate equipment in the past year, tennet will be reporting to DTe on the outcome of the measurements.

### Replacement of 220/110kV phase shifter at Zeyerveen

One of the phase shifters at Zeyerveen station having broken down in July 2004, a spare phase shifter was promptly dispatched to Zeyerveen as a replacement. (Reference is made to page 39 for further information on this project).

### Replacement of 150kV phase shifter at Krimpen aan den IJssel

Due to a technical fault one of the phase shifters at the station in Krimpen aan den IJssel caught fire on 1 July 2004. The burnt-out phase shifter had a capacity of 70MVA and was used for converting 150kV to a level of 50kV. As oil had seeped out during the fire, the soil underneath and around the station is now being decontaminated. The walls of the phase shifter cell have been repaired and the new phase shifter and auxiliary components have been ordered. The new phase shifter is expected to be taken into use by mid-2005.

### Pylon 157 near Son en Breugel to be extended upwards

One of tennet's high voltage pylons is situated off the slip road of the A58 motorway towards the A50 motorway, near Son en Breugel. As the Department of Public Works is in the process of repositioning the motorway, tennet has been asked to lengthen the pylon so as to ensure that the overhead lines and the motorway remain far enough apart according to the relevant guidelines. Agreement was reached last year with the Department of Public Works concerning the way in which extension of the pylon was to be carried out. As soon as both parties have signed the agreement, the entire project is to be implemented in 2005, with reconstruction being planned for the final quarter of the year.

## Pending projects

tennet's December 2003 acquisition of Transportnet Zuid-Holland (TZH) has resulted in it being put in charge in the past year of several infrastructural projects in which TZH had been involved. Although these projects are new to tennet, they have been classified under the heading of 'Pending projects' as they had already been under way for quite some time.

### **Construction of new high voltage connections in Randstad region**

The 'Randstad380' project entails the extension of the Maasvlakte transmission grid via Bleiswijk to Beverwijk, where the grid will be hooked up to the Oostzaan-Diemen section. The 'Randstad380' project will put in place two ring-shaped transmission grids, one in the southern and one in the northern Randstad area. (Reference is made to page 23 for further information on this project).

### **Replacement of 380kV station at Maasvlakte**

It was established as early as in 2001 that the availability of the existing gas-insulated switching unit at Maasvlakte was becoming increasingly unreliable, with maintenance no longer being an option in a few years' time. This implied that a new 380kV station at Maasvlakte was called for. A choice has been made in favour of an open-air unit featuring 4/3 switch configuration, as a novel experience for tennet. The new unit has been prepared for two existing lines, two existing phase shifters, two connections with E.ON Netz for the benefit of the Maasvlakte units, a temporary third phase shifter, one new line connection to Westerlee and possibly also a direct current connection to the United Kingdom. The new plant will assure the availability of the 380kV station at Maasvlakte into the future while featuring ample scope for further expansion.

Construction of the 380kV station is scheduled to be largely completed by late 2004. The foundations and buildings, the setting up of a temporary line and basic assembly have all been finished. Testing will commence early 2005. It is planned that the station should be hooked up to the 380kV voltage system from July 2005 onwards. The final quarter of 2005 is when the final field of the existing station should be transferred, in the context of which the wires of the temporary pylons will be switched over to new portals in the station while new cables will be inserted into the existing phase shifters for subsequent connection.

### **Replacement of 380kV circuit breakers**

Two circuit breakers were replaced last year, one at the station in Krimpen aan den IJssel and another at the Diemen station, with a view to the disproportionate cost of maintenance due to excessive oil and SF<sub>6</sub> gas leaks.

### **Oostzaan-Beverwijk project**

The construction of a new connection in a ring-shaped format from Diemen via Oostzaan and Beverwijk to Zoetermeer represents a necessary strengthening of the connection of the Randstad region. A start was made in the summer of 2004 on the construction of the new 380kV station at Beverwijk as part of this structure. Construction of the Oostzaan station is to commence in the spring of 2005. The two stations are scheduled to be ready for use by the spring of 2006.

### **Reactive power compensation**

Investment in reactive power compensation enables the level of imports to be stepped up, the option being available of offsetting import-associated reactive power losses in the grid, as major imports go hand in hand with reduced deployment of generating resources in the Netherlands, so that these resources are temporarily cut off from contributing to the reactive power supply.

### **Replacement of part of 150kV interconnection in Rotterdam**

Early 2004 saw the replacement of a fair stretch of oil pressure cable in Rotterdam by synthetic cabling, it being part of the 150kV Rotterdam/Waalhaven-Rotterdam/Marconistraat. The oil pressure cables had been installed in the early 1960s and had started causing problems owing to their being located in the busy Waalhaven area, where the heavy-duty container traffic was wreaking havoc on them and increasing the risk of leaks occurring. The old cables, which run in a longitudinal direction to the road, will be left in place for the time being. It has been agreed with the Municipality of Rotterdam that TenneT will be invited to remove the old cables as soon as road works are to be carried out in situ. In addition to being more cost-effective, this will also help minimise nuisance.

### **Fall protection facility project**

According to Labour Inspection instructions, permanent vertical fall protection facilities have been mandatory with effect from 1 January 2002 when carrying out work on high voltage pylons. However, the fall protection facility project is not just confined to the purchase and assembly of fall protection facility systems: pylon warning signs too are being modified while all pylons will be subjected to inspection. The project is progressing as planned, it being expected that all 150/220kV and 380kV high voltage pylons should each have been fitted with a permanent fall protection facility system by late 2006 while all 220kV and 380kV high voltage pylons should by then also each have been fitted with a modified or new pylon warning sign; inspection of all pylons is scheduled for completion by late 2006.

### **Division of Rotterdam Waalhaven station**

Work has been carried out in 2004 on the renovation, upgrading and division of the Waalhaven station, which currently is one of the most prominent stations in TenneT's 150kV grid in the province of South Holland. The upgrading and division are aimed at ensuring that the station should be able to cope with the new capacitive current in the event of the system short-circuiting. (Reference is made to page 19 for further information on this project).

### **New switch at Sassenheim station**

The existing Bisep plant at Sassenheim station is to be retrofitted using new switches. The new type of switch has been developed by TZH in collaboration with Vatech Netherlands. As the life of the Bisep plant is easily extended by a further 30 years except where it concerns the circuit breakers, it was decided to develop a new 150kV switch for retrofitting at seven 160kV stations featuring Bisep plant, as the considerably more cost-effective alternative to purchasing brand-new plant.

### **High voltage line at Carnisselande to be placed underground**

Part of the Rotterdam-Waalhaven-Krimpen high voltage line will in future be catered for using underground cables. The 'Midden-IJsselmonde' joint venture (the municipalities of Barendrecht and Albrandswaard) in 2000 submitted a request to TZH for the 'cabling' of part of the Rotterdam-Waalhaven-Krimpen high voltage line. The municipalities were willing to assume responsibility for the additional cost, if any. A new-build residential area had been planned along the path of the 150kV line. As sales of houses were not living up to expectations, the municipalities of Barendrecht and Albrandswaard decided that part of the line should be placed underground. The underground installation of 3,900 metres of line has enabled a total of 11 high voltage pylons to be left out altogether. The project is scheduled for completion during the second half of 2004.

### **Extension of 380kV station at Borssele**

The 380kV station at Borssele is to be gradually extended so as to be able at acceptable notice to facilitate developments such as the connection of generating units and enhancement of the import capacity involving Belgium. The first stage of the project will entail the acquisition of land and the construction of bus bars featuring a coupling circuit breaker. The latter will create a direct link for the two cross-border circuits from Geertruidenberg to Zandvliet in Belgium. The further expansion of the station can subsequently be carried out as the need arises, the connection of one or two generating units being anticipated in the medium term.

### **NorNed**

On 23 December DTe, the Dutch Office of Energy Regulation, gives the go-ahead for the construction of a 700MW high voltage interconnection between Norway and the Netherlands. On 30 December tenner and Norwegian-based Statnett sign an agreement dealing with this, the NorNed cable. tenner is making a start on cable construction in January 2005. The interconnection is scheduled to come on stream in late 2008. Reference is made to page 51 for further information on this project.

**Ton Swaders, tennet project manager**

*'What initially looked like a straightforward job has ended up a complex project owing to the legal ramifications of proprietary rights and because of the spatial constraints in the Randstad region. In order to save space for the future business park, the boreholes underneath the motorway and the railway tracks have, in fact, been drilled at an angle rather than in a straight line.'*

**Henk de Graad, external project manager**

*'Complex situations have a way of cropping up in any project, and this particular one has been no exception. This time and again underlines the importance of making a suitably early start where these kinds of project are involved, as this gives you ample scope for securing the support of all stakeholders, particularly those who will be issuing the necessary permits. Support invariably yields benefits in the somewhat longer term.'*



## Link between southern arm of high-speed railway line and national transmission grid: Making the most of the space available



*Train passengers who from 2007 find themselves zooming south along the high speed railway line at speeds of up to 300 kilometres an hour will most probably be unaware of the complexities preceding the connection of this section of railway track to the high voltage grid, and it is only natural that this should not bother them at all: the train will continue running as long as the power supply stays on, and that's all that matters.*

*Travelling from Amsterdam to Rotterdam by train in 35 minutes, and on to Paris in a mere few hours? All of this will be possible in 2007, when the southbound high speed railway line is taken into use. All the stops are currently being pulled out for the construction of this, the eco-friendly alternative to the motorcar and the aeroplane, such as the connection to the high voltage grid that is being put in place near Zoetermeer, where the railway line crosses the A12 motorway, the railway line between The Hague and Gouda and the greenhouse area near Bleiswijk along a single extended underpass. An asymmetrical 150kV two phase connection between Zoetermeer station and a connection alongside the railway track some 1,300 metres further away, which has not yet been built. It all seemed relatively plain sailing to tenner when in 2002 the initial exploratory talks took place with representatives from the Ministry of Transport, Public Works and Water Management and from the organisation in charge of the railway line: all that was called for was agreements to be made with two land owners and with the Municipality of Bleiswijk. This changed dramatically as soon as it transpired that the Municipality of Zoetermeer had acquired part of the area where the path of the railway line had been mapped out, with the intention of converting it into a business park. The construction of high voltage cables across this area would imply that a non-built up strip of land would run straight across, and this was something the Municipality of Zoetermeer was not particularly keen on. Intense consultations followed with representatives from the Municipalities of Zoetermeer and Bleiswijk and with ENECO, the grid company. The Bleiswijk authorities had to be involved as the construction of a new sewage pressure pipe was being included in the plans, so as to make optimum use of the limited space available, while ENECO had to be consulted because of the upgrading of the mid voltage electricity grid being required with a view to future expansion. In the end the parties settled on a strip of some eight metres wide and over 600 metres long, to run right along the edge of the future business park.*

*Although the date of completion, which had been set at 15 January 2006, is no problem for tenner, the work pressure started being piled on as early as in 2004 as the project forms part of a greater whole where ENECO is concerned. The civil engineering work including boreholes underneath the A12 motorway and the railway line between The Hague and Gouda is scheduled for completion by mid-2005, as is the necessary modification of Zoetermeer station. The station along the high speed railway link is being completed in September, following which a start can be made on connection and testing.*

On the picture: Henk de Graad (tenner)



# Personnel and organisation

The year under review has been a year of organisational growth, in which TZH was integrated into the tenneT organisation while other new colleagues were welcomed into the fold owing to tenneT taking on additional duties. It is quite likely that tenneT will be expanding further over the coming years when it succeeds in acquiring the full complement of Dutch transmission grids. A start was made in 2004 on setting up the organisation along the lines of the asset management model to pave the way for anticipated growth, as a development in which new staff will be welcome that fit in with tenneT's core values of quality and integrity.

## A happy and healthy workforce

As tenneT, we believe that people will perform well provided they feel well, and for this reason we devote considerable attention to creating a healthy and safe working environment.

Staff who are off sick can count on specialist coaching in the context of the Gatekeeper Act, which entails a proactive involvement aimed at their recovery. Moreover two HR consultants have been trained as case managers, it being their duty to ensure maximum damage control for the employer and employee alike. Finally, tenneT offers a range of industrial welfare facilities aimed at preventing work-related stress and providing coaching in this context.

A number of surveys are under way at tenneT aimed at assessing staff health so as to be able to implement the appropriate measures.

- A start was made late 2004 on bringing the Risk Inventory and Assessment (RIA) up to date. RIA focuses on the charting and assessment of risks in the area of staff and third-party safety, health and well-being. tenneT is keen to ensure that the risks, if any, are rendered transparent and controllable. The RIA project is being rounded off in 2005.
- TNO, the Netherlands Organisation for Applied Scientific Research, in collaboration with the medical centre of the Free University in Amsterdam launched the RSI@work survey in the autumn of 2004. A number of tenneT staff participate in this survey, which focuses on employees whose professional duties entail a large proportion of computer-related work and who are keen to alleviate their RSI-related complaints. The survey is scheduled for completion in October 2005.
- tenneT furthermore commissions a periodic industrial health survey every four years, with the object of charting the health of its workforce. Employees can participate in this survey on a voluntary basis. Invitations to join in the survey will be extended to several departments next year.

## Training and development

tenneT sets great store by being, and remaining, an attractive first-rate employer and as such, considers it to be important that staff should be encouraged continuously to work on their own development so as to ensure their optimum deployability, now and in the future. tenneT applies a decentralised format to the implementation of this training policy, under which each individual department is given its own training budget. The performance appraisal interviews provide the employee in question and his or her superior with a forum for deciding what training courses the employee should attend, for example to upgrade his or her know-how in the context of his or her current position or prepare him or her for a future position. As soon as tenneT's revamped organisational set-up had been slotted into place and the integration of TZH had been completed,

all staff who had been given new or revised positions were invited to enrol in further courses, to bring them up to speed professionally as promptly as possible. Internal mobility is enhanced by proactively drawing the attention of staff to internal job openings as well as through the activities of tennet's Personal Development Centre, which helps staff prepare their own personal development plan and which advises them on their career.

## **Integration of TZH**

The integration of TZH and tennet set-up in 2004 had a major organisational impact. Preparations were made during the first half of 2004 to enable the integration of the TZH workforce into tennet. The social plan which had been completed in 2003 was supplemented in 2004, in that a social plan for TZH was bolted on which was specifically geared to the period during which TZH would be integrating with the tennet organisation. More detailed arrangements have ensured the comprehensive integration, within a two-year term, of employment conditions between TZH and tennet. At the same time an action plan was worked up during the first half of 2004 for the integration of TZH; this plan comprises an organisational and staffing summary and a job allocation plan.

The job allocation plan came into force during the second half of 2004, involving all staff to apply for their own job or for alternative positions. The end result was that 99% of staff were reassigned, with 107 former TZH employees joining the tennet workforce with effect from 1 September 2004. Experience has been gained of staff integration, employment conditions, positions and communication vis-à-vis staff throughout the preparation of TZH's integration and while the overhaul of the tennet organisation was under way.

## **tennet structure**

A start was made in 2004 on rearranging the organisation along the lines of the asset management model, in which it is decided on a project basis who is responsible for what within the organisation. Responsibilities are arranged in market, transmission service and system service clusters. An organisational scheme outlines the business processes and positions needed to enable tennet to acquit itself of its full remit (including the TZH duties). Moreover powers and responsibilities have been laid down afresh, which has resulted in quite a few positions at tennet having undergone change in terms of substance and seniority, such as the responsibility of executives, which has broadened. Special attention is to be devoted in 2005 to advising executive staff on enrolling in suitable courses.

## **Accommodation**

tennet has significantly expanded over the past year, and this has created a need for upgrading the current general service facilities (workstations, parking space and the staff restaurant). The possibilities for adequately accommodating all staff at the current headquarters have been sounded out in the past year, an occupancy rate survey having been carried out in this context. Proposals were then submitted for the efficient fitting out of the building so as to create workstations for all staff. This involved more than just the most appropriate physical arrangement, attention also being devoted to efficiency enhancement involving digital archives, inter alia. tennet is hopeful that its offices should be fitted out with standardised workstations featuring new SHE-approved furniture in 2006.

## Safety and crisis management

Society is dependent on electricity to a considerable degree, and this implies that tenneT's transmission grids and stations form part of the Netherlands' key infrastructure. Working with high voltage on the one hand and tenneT's crucial contribution on the other ensure that tenneT devotes concerted attention to safety and security regulations. The long-term plan for fitting out electricity pylons with statutorily required fall protection facility along the climbing routes is nearing completion, with 2,040 such facilities having been fitted in 2004. tenneT expects to round off this project in 2006. A fire fighting protocol has been drawn up, in collaboration with other players in the energy industry, for fire brigades charged with extinguishing fires in high voltage stations or below high voltage lines. A proactive policy of prevention was pursued in 2004 aimed at preventing accidents at stations, near lines and on building sites. Only one slight accident has been recorded to date this year while two incidents have been reported so far, neither of which involved anyone being injured.

In the light of the increasing external threat of disruption of key infrastructures tenneT has implemented the necessary measures aimed at controlling crisis situations and providing protection to staff and properties. These measures relate to the preparation of scenarios dealing with exceptional operational management conditions and the enhancement of the crisis management organisation. The Ministry of Economic Affairs has defined a proposed standard to assure the prescribed crisis control at grid administrators and at tenneT, for finalisation and implementation in 2005.



**Jan van den Berg, senior project consultant**

*'We revitalised the NorNed project one year ago and have worked very hard to convince everyone including DTe and market players of its merits, and successfully so. Now we can start on the actual realisation. NorNed is of particular interest as there are so many different sides to it: there is the major economic aspect, the technical aspect and the regulatory aspect, all of this in an international legal sphere.'*

**Herman Bannink, project manager**

*'The Norwegians already operate interconnections with Denmark and Germany while the British and the French also have a cable connection, but for the Netherlands this is a novelty. We are working on something that by Dutch standards most definitely qualifies as exceptional. As for me personally, it's the technology that does it. Before too long the interconnection between the Netherlands and Norway will be formed by the world's longest underground cable, and I'm thrilled to be involved in such a great project.'*



## Interconnection with Norway for greater international access

*Small country, big ideas: this slogan by the Dutch Ministry of Housing, Spatial Planning and the Environment holds true for TenneT, too, in its ambition to ensure that the Netherlands should come to command a more central position in the European electricity grid over the coming years. To this end a 700MW high voltage interconnection with Norway, the NorNed cable, is being constructed.*

*The outcome of the feasibility studies having turned out positive including where it concerned the financial aspects, the electricity (99% of which is generated using hydropower in Norway) will be made available to the full complement of market players, which in the near future will be able to source their power via the pooled exchanges. The project moreover will significantly boost the international development of import and export capacity while the cable fits in with the European Commission's policy of coupling markets. Greater market liquidity will result in more stable and possibly even lower prices. And then there is the greater reliability of supply to be considered. All in all, plenty of reasons to get the implementation of NorNed off the ground.*

*The Netherlands currently operates five cross-border interconnections at top voltage level (380kV). Two of these are located on the Dutch-Belgian border, while the other three provide for interconnection with Germany. As interconnected international grids strongly impact on one another, the available capacity is closely reconciled with the Belgian and German TSOs on a daily basis. Statistics show that in 2004 some 15 percent of all power used in the Netherlands was accounted for by cross-border imports – quite a lot compared with most other European countries.*

*The construction of the DTE-approved interconnection with Norway (which is scheduled to come on stream by 2008) in conjunction with better use being made of the existing interconnections with Belgium and Germany could boost the capacity of the cross-border interconnections to just under 6,000MW. Compare this to the aggregate Dutch demand, which at present weighs in at about 15,000MW, and it will be clear that our country would no longer operate in 'electrical isolation' – in fact, of all European countries we would then have the largest number of cross-border interconnections in relative terms.*

*The preparatory stages for the NorNed project were largely completed in 2004, permits having been secured and arrangements having been made with suppliers concerning actual construction. Before too long, cables having a diameter of some 17 centimetres and a weight of no less than 80 kilogrammes per metre will be jettied into the seabed along a 580-kilometre stretch, at a depth of more than 400 metres in some places, as an awe-inspiring venture that should ultimately result in superior international access for the power grid.*





# Financial statements

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The composition of the financial statements is as follows:

- Consolidated balance sheet as at 31 December 2004 after profit appropriation
- Consolidated profit and loss account for the year 2004
- Consolidated cash flow statement for the year 2004
- General notes
- Notes to the consolidated balance sheet as at 31 December 2004
- Notes to the consolidated profit and loss account for the year 2004
- Company balance sheet as at 31 December 2004 after profit appropriation
- Company profit and loss account for the year 2004
- General notes
- Notes to the company balance sheet as at 31 December 2004 and the company profit and loss account for the year 2004

The following is appended to the financial statements:

- Other information

## Consolidated balance sheet as at 31 December 2004 after profit appropriation

(x EUR 1,000)

Assets	Note	31 December 2004	31 December 2003
<b>Fixed assets</b>			
<i>Intangible fixed assets</i>	6	<b>14,973</b>	18,100
<i>Tangible fixed assets</i>	7		
High-voltage lines		<b>323,870</b>	338,013
High-voltage stations		<b>355,280</b>	363,294
Office buildings		<b>15,953</b>	11,487
Other tangible fixed assets		<b>15,511</b>	14,367
Assets under construction		<b>83,427</b>	37,969
		<b>794,041</b>	765,130
<i>Financial fixed assets</i>	8		
Other participating interests		<b>1,723</b>	1,693
Deferred tax receivables		<b>62,330</b>	65,107
Other receivables		<b>12,014</b>	177
		<b>76,067</b>	66,977
<b>Current assets</b>			
<i>Inventory</i>	9	<b>3,781</b>	2,096
<i>Receivables</i>	10		
Accounts receivable		<b>13,586</b>	32,442
Accounts receivable, energy exchange transactions		<b>302,044</b>	193,465
Prepayments and accrued income		<b>54,480</b>	53,440
		<b>370,110</b>	279,347
<i>Securities not freely disposable</i>	11	<b>75,488</b>	65,065
<i>Cash at bank and in hand</i>	12		
Cash at bank and in hand not freely disposable		<b>509,193</b>	449,086
Other cash at bank and in hand		<b>18,297</b>	65,805
		<b>527,490</b>	514,891
		<b>1,861,950</b>	1,711,606

<b>Liabilities</b>	<i>Note</i>	<b>31 December 2004</b>	<b>31 December 2003</b>
<i>Group equity</i>	13	<b>374,101</b>	339,174
<i>Provisions</i>	14		
Provision for repairs and maintenance		<b>27,948</b>	22,361
Provision for environment and demolition		<b>19,800</b>	12,980
Provision personnel		<b>7,742</b>	9,002
		<b>55,490</b>	44,343
<i>Long-term liabilities</i>	15		
Other loans		<b>250,000</b>	100,000
Investment contributions received in advance		<b>75,253</b>	36,723
Amounts received in advance		<b>182,193</b>	182,410
		<b>507,446</b>	319,133
<i>Current liabilities</i>	16		
Amounts received in advance		<b>172,445</b>	226,587
Accounts payable		<b>10,144</b>	21,638
Accounts payable, energy exchange transactions		<b>301,338</b>	193,341
Collateral		<b>223,390</b>	166,503
Loans-term liabilities falling due within 1 year		<b>100,000</b>	50,000
Debts payable to financial institutions		-	242,611
Taxes and social security contributions		<b>32,990</b>	23,740
Accruals and deferred income		<b>84,606</b>	84,536
		<b>924,913</b>	1,008,956
		<b>1,861,950</b>	1,711,606

## Consolidated profit and loss account for the year 2004

(x EURO 1,000)

	Note	2004	2003
<i>Turnover</i>	18	<b>415,794</b>	358,105
<i>Operating expenses</i>			
Energy and capacity expenses	19	<b>144,168</b>	166,525
Transmission grid and operational system expenses	20	<b>38,532</b>	26,420
Personnel expenses	21	<b>36,141</b>	30,476
Amortisation of intangible fixed assets		<b>8,037</b>	4,836
Depreciation of tangible fixed assets		<b>44,871</b>	27,030
General administrative expenses	22	<b>32,045</b>	20,357
		<b>303,794</b>	275,644
<b>Operating profit</b>		<b>112,000</b>	82,461
<i>Financial income and expenses</i>	23		
Interest income		<b>16,118</b>	12,877
Interest expenses		<b>24,841</b>	17,405
		<b>8,723</b>	4,528
<b>Result before taxation</b>		<b>103,277</b>	77,933
<i>Taxation</i>	24	<b>45,250</b>	27,192
<i>Share in result of participating interests</i>		<b>-/ - 19</b>	228
<b>Result after taxation</b>		<b>58,008</b>	50,969

# Consolidated cash flow statement for the year 2004

(x EURO 1,000)

	Note	2004	2003
<i>Cash flow from third-party transactions</i>			
Receipts:			
• Energy exchange transactions		1,862,435	1,066,144
• Auctions		81,368	129,446
• MEP grants		272,594	93,716
• Maintenance of the energy balance		70,355	106,192
		<b>2,286,752</b>	<b>1,395,498</b>
Expenditure:			
• Energy exchange transactions		-/- 1,862,435	-/- 1,066,144
• Auctions		-/- 42,295	-/- 62,752
• MEP grants		-/- 278,061	-/- 11,833
• Maintenance of the energy balance		-/- 73,367	-/- 102,600
		<b>-/- 2,256,158</b>	<b>-/- 1,243,329</b>
		<b>30,594</b>	<b>152,169</b>
<i>Cash flow from operating activities</i>			
Result		58,008	50,969
Decrease in deferred taxes		8,542	-
Depreciation of fixed assets		52,908	31,866
Increase in provisions	14	11,147	23,670
Decrease in working capital		11,805	27,752
		<b>142,410</b>	<b>134,257</b>
<i>Cash flow from investing activities</i>			
Intangible fixed assets	6 -/-	2,178	-/- 10,707
Tangible fixed assets	7 -/-	81,014	-/- 299,848
Financial fixed assets	8 -/-	13,132	-/- 1,788
		<b>-/- 96,324</b>	<b>-/- 312,343</b>
<i>Cash flow from financing activities</i>			
Newly contracted loans	15	250,000	-
Decrease/increase in debts to financial institutions		-/- 242,611	217,663
Private loan redemption		-/- 50,000	-
Dividend paid		-/- 22,936	-
Withdrawals from amounts received in advance		-/- 55,421	-/- 25,311
		<b>-/- 120,968</b>	<b>192,352</b>
Decrease/increase in cash at bank and in hand		<b>-/- 44,288</b>	<b>166,435</b>
Increase in third-party cash at bank and in hand	12	<b>56,887</b>	<b>38,087</b>
<b>Increase in cash at bank and in hand</b>		<b>12,599</b>	<b>204,522</b>

## 1. Nature of business operations

On 6 December 2001 tenneT Transmission System Operator B.V. (tenneT) was appointed, under the Electricity Act, as the independent administrator of the national power transmission grid. On 18 December 2004 it was also appointed as administrator of the regional grid of South Holland province. Each of these appointments was made for a ten-year term.

The company's objective is to provide transmission and system services on a non-discriminatory and transparent basis. To that end the company operates Dutch power transmission grids as well as cross-border interconnection grids at a voltage level of 500V or higher. The company also acts as a facilitator for the electricity supply market and performs a range of activities associated with the above objectives.

The company's fully paid-up share capital is held by the State of the Netherlands.

## 2. Principles of consolidation

The consolidation comprises the financial data for tenneT itself and for group companies in which tenneT has direct or indirect control in terms of governance and financial policy. The assets, liabilities and results of these group companies are fully consolidated. The financial data of joint ventures in which tenneT shares control under agreements with others are consolidated proportionately on the basis of tenneT's accounting principles. The results of group companies which have been acquired in the course of a financial year are included in the consolidated profit and loss account from the date of their incorporation into the group.

The following legal entities are included in the consolidation:

		Share in capital
APX B.V.	Amsterdam	100%
- APX Gas Ltd.	Nottingham	100%
- APX Power Ltd.	London	100%
- APX Holdings UK Ltd.	London	100%
CertiQ B.V.	Arnhem	100%
Certichange B.V.	Utrecht	50%
EEeXchange B.V.	Utrecht	50%
EnerQ B.V.	Arnhem	100%
Elined B.V.	Arnhem	100%
- Relined B.V.	Utrecht	50%
European Energy Auction B.V.	Gemert	100%
NLink International B.V.	Arnhem	100%
- BritNed Development Ltd.	Birmingham	50%
TSO Auction B.V.	Arnhem	100%
B.V. Transportnet Zuid-Holland	Voorburg	100%

tenneT has issued a declaration of liability within the meaning of Article 403, Book 2 of the Netherlands Civil Code with regard to B.V. Transportnet Zuid-Holland with effect from 18 December 2003 in which it assumes joint and several liabilities for the debts ensuing from the legal acts.

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The consolidation also includes the Stichting Beheer Doelgeden Landelijk Hoogspanningsnet, based in Arnhem.

In the course of 2004 APX Amsterdam Power Exchange (UK) Ltd. was renamed APX Power Ltd., and EnMO Ltd. was renamed APX Gas Ltd.

In June 2003 tenner acquired the shares of APX Gas Ltd., and in December 2003 it acquired the shares of B.V. Transportnet Zuid-Holland. These subsidiaries have been included in the comparative figures for six months and one month, respectively. They have been fully consolidated in 2004.

In July 2004 APX Power Ltd. acquired the assets and business of UKPX for EUR 2 million. The results of UKPX's activities have been consolidated from 1 July 2004.

### **3. Notes to the consolidated cash flow statement**

The cash flow statement has been prepared according to the indirect method. The cash flow statement comprises cash flow from third-party transactions as well as from operating, investing and financing activities.

The cash flow from third-party transactions relates to activities performed for the account of third parties and for which the company receives fees for services rendered. The cash flow from third-party transactions is classified as restricted cash at bank and in hand.

### **4. Principles of valuation of assets and liabilities**

#### **4.1 General**

The financial statements are prepared in accordance with generally accepted accounting principles in the Netherlands.

Assets and liabilities are stated at nominal value unless otherwise indicated.

#### **4.2 Comparison with previous year**

The accounting principles used for the valuation of assets and liabilities and the determination of the result remain unchanged compared to the previous year.

Because of the nature of the grants disbursed under the Environmental Quality of Electricity Generation Act (MEP), it has been decided to show these under current liabilities rather than long-term liabilities with effect from 2004. The comparative figures have been adjusted accordingly. Consequently long-term amounts received in advance have decreased and short-term amounts received in advance have increased by EUR 96.9 million. This change in presentation has no effect on the result or on shareholders' equity.

Some minor adjustments have been made to the comparative figures.

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### 4.3 Foreign currencies

Balance sheets items relating to assets and liabilities denominated in foreign currencies are translated at the exchange rates applicable at the balance sheet date. The resultant translation differences are included in the result for the year. Transactions denominated in foreign currencies during the year under review are included in the financial statements at the exchange rates at which they were effected.

The assets and liabilities of consolidated foreign group companies are translated at the exchange rates applicable at the balance sheet date. The translation differences arising from exchange rate fluctuations are recognised directly in shareholders' equity. The results of the consolidated foreign group companies are recognised at the average exchange rates for the financial year in question.

### 4.4 Intangible fixed assets

Goodwill is defined as the difference between the acquisition price of assets and liabilities and their fair value at the time of acquisition. The capitalised goodwill is amortised on a straight-line basis over the estimated useful life, up to a maximum of ten years.

Other intangible fixed assets are valued at their acquisition price less straight-line amortisation. The amortisation period is the same as the estimated useful life, namely five years.

### 4.5 Tangible fixed assets

Tangible fixed assets are valued at their original acquisition price or manufacturing cost, including interest incurred during construction, less straight-line depreciation. Where applicable, the acquisition price or manufacturing cost is capped at the investment budget set by the Office of Energy Regulation (DTe) while determining the system of depreciation, the system of regulation is taken into account.

Depreciation is calculated as a proportion of the acquisition price or manufacturing cost on the basis of the following useful lives:

High-voltage lines	40 years
High-voltage stations	
• stations	35 years
• transformers	35 years
Office buildings	40 years
Other tangible fixed assets	
• telecommunication network	10 years
• automation systems	3-5 years
other business assets	5-10 years

Land (including the preparation of sites for construction) is not depreciated.

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#### *Investments financed by third parties*

Contributions from auction proceeds to investments in tangible fixed assets are shown as long-term liabilities, and are thus not deducted from tangible fixed assets. Investments made at the request and for the account of third parties are capitalised less third-party contributions.

#### **4.6 Financial fixed assets**

Participating interests in which tenner exercises significant control are stated at net asset value on the basis of tenner's accounting principles. In cases where insufficient data are available to make the necessary adjustments in line with these principles, the participating interest in question is valued on the basis of its financial statements.

Participating interests in which tenner does not exercise significant control are stated at the lower of acquisition price or fair value.

Deferred tax receivables associated with carry forward losses and temporary differences between the fiscal and economic values of assets and liabilities are calculated on the basis of corporation tax rates likely to apply at the settlement date. Deferred tax receivables are stated at nominal value.

Receivables included in financial fixed assets are stated at nominal value less provisions for bad debts as deemed necessary.

#### **4.7 Impairments of fixed assets**

Every year an assessment is made whether there are indications that an asset may be subject to impairment. If there are such indications, the realisable value of the asset in question is estimated. If this is not possible, the realisable value of the cash-generating unit to which the asset belongs is identified. An asset is subject to impairment if its book value is higher than its realisable value. Impairments are included in the profit and loss account.

#### **4.8 Inventory**

Inventory is valued at their acquisition price less a provision for potential obsolescence.

Occasionally activities are carried out on behalf of third parties. Work in progress is valued at production cost, that is, the direct costs of materials and labour plus charges for indirect costs, directly attributable outsourced work and other external costs. If these projects for third parties yield any demonstrable profits, these are allocated proportionately to the financial year in which the activities are carried out as part of the whole project, provided this can be reliably estimated. Provisions for expected losses are formed in the period when these losses become evident, and they are deducted from work in progress.

Invoices for work in progress carried out for third parties are shown in current liabilities.

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#### **4.9 Receivables**

Receivables are stated at nominal value less provisions for bad debts as deemed necessary.

#### **4.10 Securities**

Securities are valued at the lower of cost or market value.

#### **4.11 Provisions**

Provisions are formed for legally enforceable or actual obligations existing at the balance sheet date where an outflow of resources is likely and the amounts involved can be reliably estimated. Provisions are stated at nominal value unless otherwise indicated.

The provision for repairs and maintenance serves to equalise the costs of major repairs and maintenance to buildings and high-voltage lines and stations owned by tennet and third parties. The annual addition to the provision is based on the long-term maintenance plan.

The provision for environment and demolition serves to cover the costs of removing harmful substances and the costs of clearing abandoned (or to be abandoned) high-voltage lines and stations.

The personnel provision serves to cover the costs of special staff schemes whose commitments arose before the balance sheet date. The amounts relating to the transitional arrangement for health insurance premiums included in this provision have been calculated on the basis of actuarial principles.

#### **4.12 Long-term and current liabilities**

The investment contributions received in advance included in long-term liabilities relate to tangible fixed assets which are owned by the group and for which a contribution has been received from the auction proceeds.

The amounts received in advance relate to funds which will be offset against future tariffs or which are not freely disposable by the group.

Interest is added to the amounts received in advance included in liabilities.

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#### **4.13 Energy exchange transactions**

The company facilitates the energy supply market, and to that end operates a number of energy exchanges. An energy exchange is a market place where the supply of and demand for energy are matched. Energy exchanges are responsible for the financial settlement of the anonymously effected transactions.

The mechanism for the financial settlement of these transactions is determined for each individual energy exchange. The energy exchange concludes agreements with market parties prior to them joining the exchange to ensure that they will only trade when they can provide sufficient collateral.

### **5. Principles of determination of result**

#### **5.1 General**

The result represents the difference between the value of services rendered and the costs and other charges for the year. The results on transactions are recognised in the year when they are realised, while losses are recognised as soon as they become foreseeable.

In December 2003 tenneT acquired the shares of B.V. Transportnet Zuid-Holland. The results of this subsidiary have been included for one month in the comparative figures, and have been fully consolidated in 2004.

#### **5.2 Turnover**

Turnover is based on the tariffs set by the DTe for the financial year in question for the components connection services, transmission services and system services, in accordance with the tariff structure laid down in the Tariff Code and any supplementary DTe decisions.

Within the parameters of the programme responsibility system, parties which execute programme responsibility are required to pay, under the System Code, the administrator of the national high-voltage grid compensation ('imbalance charge') whenever they depart from their previously submitted programme. The national grid administrator purchases energy and capacity in order to restore the energy balance. The System Code stipulates that the administrator of the national high-voltage grid should offset the ensuing imbalance charges against the system service tariff of a subsequent year.

Turnover from energy exchange operations relates to membership contributions and transaction fees paid for services rendered in connection with the operation of energy exchanges.

Capitalised production for tenneT's own business includes the internal costs incurred in the creation of tangible fixed assets. Most of these are staff costs.

Other revenues include proceeds from other services and work carried out for third parties.

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### **5.3 Operating expenses**

Operating expenses are recognised on the basis of historical cost and are allocated to the financial year to which they relate.

### **5.4 Amortisation and depreciation**

Intangible fixed assets and tangible fixed assets are subject to straight-line amortisation and depreciation, respectively, on the basis of acquisition cost and expected useful life.

### **5.5 Taxation**

Tax liabilities on the result are calculated over the result presented in the financial statements in accordance with the applicable rules and rates. Due account is taken of permanent differences between the result for tax purposes and the result presented in these financial statements and of any scope for carrying losses forward.

## Notes to the consolidated balance sheet as at 31 December 2004

(x EURO 1,000)

### 6. Intangible fixed assets

The trade name and contracts with participants acquired in 2004 are included in other intangible fixed assets.

Movements in the book value of intangible fixed assets can be broken down as follows:

	Goodwill	Other intangible fixed assets	Total 2004	Total 2003
Book value as at 1 January	18,100	-	<b>18,100</b>	12,229
Investments	279	1,892	<b>2,171</b>	10,707
Amortisation	-/- 6,138	-/- 196	-/- <b>6,334</b>	-/- 4,836
Value adjustment	2,732	-	<b>2,732</b>	-
Impairment	-/- 1,703	-	-/- <b>1,703</b>	-
Translation differences	-	7	<b>7</b>	-
Book value as at 31 December	13,270	1,703	<b>14,973</b>	18,100

The adjustment in the value of goodwill is due to adjustments in the valuation of B.V. Transportnet Zuid-Holland's assets.

The impairment of goodwill concerns the settlement with the DTe regarding the value of APX's day-ahead market operations.

The accumulated acquisition price and amortisation in respect of the above intangible fixed assets were as follows as at 31 December 2004:

	Goodwill	Other intangible fixed assets	Total 2004	Total 2003
Acquisition cost	34,100	1,899	<b>35,999</b>	31,088
Amortisation	20,830	196	<b>21,026</b>	12,988
Book value as at 31 December	13,270	1,703	<b>14,973</b>	18,100

### 7. Tangible fixed assets

High-voltage lines comprise all overhead and underground lines owned by the company. The company does not own the land on which the high-voltage pylons stand; it pays fees for the right to use such land.

High-voltage stations comprise the stations and transformers.

Other tangible fixed assets comprise the telecommunication network, office computer equipment and process automation facilities.

Movements in the book value of tangible fixed assets in use can be broken down as follows:

	High-voltage lines	High-voltage stations	Office buildings	Other tangible fixed assets	Total 2004	Total 2003
Book value as at 1 January	338,013	363,294	11,487	14,367	<b>727,161</b>	445,852
Investments	3,560	19,429	5,391	7,204	<b>35,584</b>	75,813
Acquisition of participations	-	-	-	-	-	232,582
Disposals	-/- 17	-/- 296	-	-	<b>-/- 313</b>	-/- 40
Translation differences	-	-	-	-/- 28	<b>-/- 28</b>	-/- 56
Value adjustment	-	-/- 7,232	-	-	<b>-/- 7,232</b>	-
Depreciation	-/- 17,686	-/- 19,915	-/- 925	-/- 6,032	<b>-/- 44,558</b>	-/- 26,990
Book value as at 31 December	323,870	355,280	15,953	15,511	<b>710,614</b>	727,161

In 2002 the depreciation periods for tangible fixed assets were brought into line with revised expectations concerning their useful lives. The new depreciation periods have not been applied retrospectively.

The value adjustment concerns a diminution in the value of the tangible fixed assets of B.V. Transportnet Zuid-Holland as determined at the time of the acquisition of its shares. This adjustment has led to a restatement of goodwill.

The accumulated acquisition price and depreciation in respect of the above tangible fixed assets were as follows as at 31 December 2004:

	High-voltage lines	High-voltage stations	Office buildings	Other tangible fixed assets	Total 2004	Total 2003
Acquisition price	725,400	814,763	28,359	65,493	<b>1,634,015</b>	1,605,941
Depreciation	401,530	459,483	12,406	49,982	<b>923,401</b>	878,780
Book value as at 31 December	323,870	355,280	15,953	15,511	<b>710,614</b>	727,161

The book value of the tangible fixed assets can be broken down into the following types of activities:

	2004	2003
National transmission grid (380kV and 220kV grids)	<b>519,865</b>	535,485
Regional transmission grid (150kV grid)	<b>186,789</b>	188,690
Tangible fixed assets not allocated to transmission grids	<b>3,960</b>	2,986
Total	<b>710,614</b>	727,161

The inflation-adjusted regulatory value of the national transmission grid amounted to around EUR 870 million as at 31 December 2004, of which around EUR 90 million related to cumulative inflation.

Legal title to the national high-voltage grid rests with Saranne B.V., all of whose shares were held by the State of the Netherlands at the balance sheet date.

Movements in assets under construction can be broken down as follows:

	High-voltage lines	High-voltage stations	Office buildings	Other tangible fixed assets	<b>Total 2004</b>	Total 2003
Book value as at 1 January	2,804	33,247	106	1,812	<b>37,969</b>	46,460
Capitalisation	27,759	40,649	5,285	7,349	<b>81,042</b>	57,046
Acquisition of participations	-	-	-	-	-	10,276
Taken into use	-/- 3,560	-/- 19,429	-/- 5,391	-/- 7,204	<b>-/- 35,584</b>	-/- 75,813
Balance as at 31 December	27,003	54,467	-	1,957	<b>83,427</b>	37,969

## 8. Financial fixed assets

Movements in the book value of financial fixed assets can be broken down as follows:

	Other participating interests	Deferred tax receivables	Other receivables	<b>Total 2004</b>	Total 2003
Book value as at 1 January	1,693	65,107	177	<b>66,977</b>	65,189
Investments	49	-	12,128	<b>12,177</b>	-
Movement in deferred taxes	-	-/- 2,771	-	<b>-/- 2,771</b>	1,625
Acquisition of participations	-	-	-	-	183
Share in result of other participating interests	-/- 19	-	-	<b>-/- 19</b>	-/- 14
Redemptions/amortisation	-	-	-/- 291	<b>-/- 291</b>	-/- 6
Translation differences	-	-/- 6	-	<b>-/- 6</b>	-
Book value as at 31 December	1,723	62,330	12,014	<b>76,067</b>	66,977

### *Other participating interests*

Other participating interests relate to renner's participation in La Société Holding des Gestionnaires de Réseau de Transport d'Électricité and in Endex N.V.

### *Deferred tax receivables*

Deferred tax receivables relate to the temporary differences between the fiscal and market values of tangible fixed assets and the provision for major repairs and maintenance, as well as to losses which can be carried forward.

renner became liable for corporation tax on 1 January 1998. The opening balance sheets for tax purposes at that date have not yet been agreed.

The deferred tax receivables will decrease on balance as a result of the reduction of the corporation tax rate to 30% and the creation of a deferred tax receivable in respect of the 150kV grid.

*Other receivables*

Other receivables relate mainly to buying off a long-term lease.

## 9. Inventory

Inventory can be broken down as follows:

	<b>2004</b>	2003
Inventory	<b>1,745</b>	1,769
Work in progress	<b>2,036</b>	327
Total	<b>3,781</b>	2,096

A total of EUR 5.6 million has been invoiced for work in progress. This amount is included in accruals and deferred income.

## 10. Receivables

*Accounts receivable, energy exchange transactions*

Accounts receivable in connection with energy exchange transactions relate to APX Gas Ltd.'s transactions. These transactions result in receivables and payables, respectively for the sale and purchase of energy based on the underlying contracts. The payables are paid as soon as the receivables have been collected. The receivables are secured by various forms of collateral, including bank guarantees, collaterals and debtor insurance.

The increase in receivables in connection with energy exchange transactions is due to larger volumes and higher prices on the British gas market.

*Prepayments and accrued income*

Prepayments and accrued income can be broken down as follows:

	<b>2004</b>	2003
MEP grants to be receivable	<b>28,804</b>	23,048
Turnover to be invoiced	<b>7,104</b>	8,782
Imbalance charges due from parties with programme responsibility	<b>4,422</b>	8,926
Interest receivable	<b>6,531</b>	6,612
Miscellaneous	<b>7,619</b>	6,072
Total	<b>54,480</b>	53,440

## 11. Securities not freely disposable

Securities not freely disposable comprise Dutch government bonds held by the Stichting Beheer Doelgelden Landelijk Hoogspanningsnet. These have been included in the balance sheet at the stock market value as at 31 December 2004, because this is lower than the acquisition price.

## 12. Cash at bank and in hand

*Cash at bank and in hand not freely disposable*

Restricted cash at bank and in hand can be broken down as follows:

	2004	2003
Third-party funds	223,390	166,503
Deposits and outstanding call monies	284,500	271,000
Bank account balances	1,303	11,583
Total	509,193	449,086

Cash at bank and in hand not free disposable can be broken down into the following types of activities:

	2004	2003
Funds furnished to the tenner group in the context of:		
• programme responsibility	5,167	12,734
• auctioning of capacity by TSO Auction B.V.	44,125	49,608
• APX group energy exchange operations	174,098	104,161
	223,390	166,503
MEP grants EnerQ B.V.	81,976	85,321
Earmarked funds Stichting Beheer Doelgelden Landelijk Hoogspanningsnet	203,827	197,262
Total	509,193	449,086

*Other cash at bank and in hand*

Other cash at bank and in hand can be broken down as follows:

	2004	2003
Deposits and outstanding call monies	11,000	26,849
Banks account balances	7,297	38,956
Total	18,297	65,805

tennet has credit facilities available totalling EUR 205 million, of which EUR 175 million expires on 1 July 2005. The terms and conditions of the credit facilities include stipulations concerning negative pledge and pari passu.

### 13. Group equity

A breakdown of shareholders' equity is provided in the Notes to the company balance sheet.

### 14. Provisions

Movements in the book value of provisions can be broken down as follows:

	Repair and maintenance	Environment and demolition	Personnel provision	<b>Total 2004</b>	Total 2003
Book value as at 1 January	22,361	12,980	9,002	<b>44,343</b>	20,673
Acquisition of participations	-	-	-		14,180
Additions	7,500	7,236	851	<b>15,587</b>	12,651
Interest	-	-	63	<b>63</b>	145
Withdrawals	-/- 1,913	-/- 416	-/- 2,174	<b>-/- 4,503</b>	-/- 3,306
Book value as at 31 December	27,948	19,800	7,742	<b>55,490</b>	44,343

#### *Provision for repairs and maintenance*

The provision for repairs and maintenance serves to equalise the costs of repairs and maintenance.

#### *Provision for environment and demolition*

The provision for environment and demolition serves to cover the costs of removing harmful substances and the costs of clearing abandoned (or to be abandoned) high-voltage lines and stations.

#### *Provision personnel*

The provision for personnel also serves to cover the costs of staff redundancy schemes whose commitments arose before the balance sheet date.

Around EUR 8.5 million of the provisions are of a short-term nature.

## 15. Long-term liabilities

### *Other loans*

The other loans have terms ranging from three to five years. At the time when the long-term loans were taken out, contracts were also signed to provide for the conversion of variable interest rates into fixed rates. The average interest on the loans amounts to 3.87%.

Movements in other loans can be broken down as follows:

	2004	2003
Balance as at 1 January	100,000	150,000
Newly contracted loans	250,000	-
Loans falling due within 1 year	-/- 100,000	-/- 50,000
Balance as at 31 December	250,000	100,000

The terms and conditions of all credit facilities include stipulations for negative pledge and pari passu. The repayment commitment for next year is included in current liabilities.

### *Investment contributions received in advance*

The investment contributions received in advance relate mainly to investments made in the phase shifters at Meeden and in reactive power compensation facilities and the associated operating costs. The contributions are amortised on a straight-line basis over the useful life of the tangible fixed asset in question or according to the pattern in which the operating costs occur.

Investment contributions received in advance can be broken down as follows:

	2004	2003
Balance as at 1 January	36,723	27,748
Addition	41,404	10,081
Amortisation taken to the profit and loss account	-/- 2,874	-/- 1,106
Balance as at 31 December	75,253	36,723

The additions in 2004 relate mainly to the investment in reactive power compensation facilities.

#### *Amounts received in advance*

Amounts received in advance relate to auction proceeds which will be used for purposes due to be designated by the DTe.

Amounts received in advance can be broken down as follows:

	2004	2003
Balance as at 1 January	182,410	124,909
Addition	40,353	65,242
Interest	4,526	4,154
Withdrawals	-/- 45,096	-/- 11,895
Balance as at 31 December	182,193	182,410

The proceeds from auctioning the capacity of the cross-border interconnections are added each year to amounts received in advance. In 2004 the DTe decided that the investments in the Diemen-Oostzaan-Beverwijk line (EUR 58 million) and the construction of the cable to Norway (EUR 318 million) should be funded from auction proceeds over the coming years.

The difference between the withdrawals from amounts received in advance and the additions to investment contributions received in advance relate mainly to the settlement with the DTe regarding the value of APX's day-ahead market operations.

## 16. Current liabilities

#### *Amounts received in advance*

Amounts received in advance relate mainly to funds disbursed under the Environmental Quality of Electricity Generation Act (MEP), which came into force on 1 July 2003 and seeks to stimulate environmentally friendly electricity generation, and to amounts to be offset against future tariffs.

Movements in amounts received in advance can be broken down as follows:

	MEP grants	To be offset against future tariffs	Imbalance charges	Generators' compensation for cross-border capacity	Total 2004	Total 2003
Balance as at 1 January	105,426	38,277	46,544	36,340	226,587	144,609
Acquisition of participations	-	-	-	-	-	2,037
Addition	277,644	20,967	70,355	11,092	380,058	257,639
Interest	2,102	690	1,130	604	4,526	4,135
Withdrawals	-/- 275,393	-/- 60,125	-/- 73,367	-/- 29,841	-/- 438,726	-/- 181,833
Balance as at 31 December	109,779	-/- 191	44,662	18,195	172,445	226,587

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*MEP grants*

At the balance sheet date an estimated EUR 161 million remained payable in MEP grants for 2003 and 2004. This amount will be paid from subsidies already received and due to be received.

*To be offset against future tariffs*

In 2004 the DTe decided to abolish the standard national generators' tariff with effect from 1 July 2004. The amounts still due to be received under this arrangement will be offset against the tariffs for 2005.

*Imbalance charges*

Under the system for maintaining the energy balance, tenneT each year receives certain amounts of imbalance charges, which are offset against the future tariffs for system services.

*Generators' compensation for cross-border capacity*

Under section 13 of the Electricity Generating Industry Transitional Act, tenneT receives compensation from the generating companies for making transmission capacity on the cross-border interconnections available to them. The ensuing revenues are offset against future transmission service tariffs.

*Accounts payable, energy exchange transactions*

Accounts payable in connection with energy exchange transactions relate to transactions on APX Ltd.'s gas exchange. The increase is due to larger volumes and higher prices on the British gas market. There is a direct correlation between accounts payable and accounts receivable for the gas market.

*Collateral*

Third parties have furnished tenneT with collateral as security for the trade on energy exchanges. The increase in the amount is due to larger trading volumes and higher energy prices.

*Accruals and deferred income*

Accruals and deferred income can be broken down as follows:

	<b>2004</b>	2003
Auction proceeds payable to TSOs	<b>7,856</b>	9,862
Transmission and system service charges payable	<b>40,773</b>	43,187
Miscellaneous	<b>35,977</b>	31,487
Total	<b>84,606</b>	84,536

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## 17. Off-balance-sheet rights and obligations

### *Long term financial commitments*

tennet and Statnett SF have concluded a cooperation agreement for the construction of a cable between the Netherlands and Norway. The total investment for this project is estimated at EUR 318 million. Some EUR 117.7 million had been committed as at 31 December 2004.

As at 31 December 2004, commitments of EUR 23.4 million (2003: EUR 25.3 million) had been entered into with respect to tangible fixed assets.

As at 31 December 2004, payments to third-party owners of transmission grids amounted to a total of around EUR 13.3 million. These payments will continue until 31 December 2008.

### *Collateral*

The participants in the energy exchanges have furnished APX B.V., APX Gas Ltd. and APX Power Ltd. with guarantees and other collateral to secure their trading positions. The company has also taken out a debtor insurance.

Parties with programme responsibility have furnished tennet with bank guarantees totalling EUR 14.1 million (2003: EUR 14.4 million) pursuant to their programme responsibilities.

### *Contingent liabilities*

In 2004 the DTe decided that APX B.V.'s day-ahead market operations should no longer be subject to regulation. This decision was based on the assumption that the advance bid obligation in the day-ahead market for the cross-border interconnection capacity will continue to apply until 2009. If this obligation is abolished either before or after 1 January 2009, this will give rise respectively to a claim by or an obligation on tennet.

tennet has concluded option contracts covering 50% of the shares in the gas exchanges and associated futures activities.

### *Contingent rights*

The State of the Netherlands and tennet have agreed that the latter is entitled to acquire the shares in Saranne B.V. at net asset value, or alternatively to acquire legal title to the national high-voltage grid and the associated other business assets.

In addition to these off-balance-sheet rights and obligations, tennet has certain other rights and obligations, which have not been listed separately because of their limited extent.

# Notes to the consolidated profit and loss account for the year 2004

(x EUR 1,000)

## 18. Turnover

Turnover comprises payments received for the supply of connection, transmission and system services rendered in the Netherlands and amounts charged in the context of the maintenance of the energy balance throughout the Dutch system. Turnover also includes fees for services rendered in operating energy exchanges and facilitating the energy market. Other revenues relate mainly to turnover generated by subsidiary companies.

Turnover can be broken down as follows:

	2004	2003
Connection and transmission services	<b>185,385</b>	123,977
System services	<b>147,036</b>	134,136
Maintenance of the energy balance	<b>43,658</b>	70,255
Operation of energy exchanges	<b>12,938</b>	7,781
Market facilitation services	<b>9,216</b>	5,769
	<b>398,233</b>	341,918
Capitalised production for tennet's own business	<b>5,455</b>	2,566
Work for third parties	<b>6,132</b>	1,353
Other revenue	<b>5,974</b>	12,268
Turnover	<b>415,794</b>	358,105

Turnover from connection and transmission services also includes the services provided to the regional grid administrators in resolving transmission restrictions and reactive power transactions, as well as the proceeds from the use of cross-border interconnections (cross-border tariffs).

The increase in turnover from connection and transmission services is due to tennet's acquisition of the shares in B.V. Transportnet Zuid-Holland in December 2003.

The decrease in turnover from maintaining the energy balance activities is due to the absence of extraordinary events in 2004. In 2003 the hot and dry summer had led to bottlenecks in the Dutch energy market.

Turnover from market facilitation services concerns the creation of certificates, the administration of the scheme to promote the environmental quality of electricity generation (under the MEP), and the auctioning of capacity on the cross-border interconnections.

## 19. Energy and capacity expenses

The expenses associated with purchasing energy and capacity can be broken down as follows:

	2004	2003
Connection and transmission services	23,391	26,543
Cross-border tariffs	18,278	5,420
System services	58,841	64,307
Maintenance of the energy balance	43,658	70,255
	<b>144,168</b>	166,525

## 20. Transmission grid and operational system expenses

The transmission grid and operational system expenses include both the costs of operating the transmission grids and the costs of maintaining the systems relating to the primary operating processes.

Transmission grid and operational expenses can be broken down as follows:

	2004	2003
Systems for primary operating processes	4,380	3,533
Maintenance of transmission grids	13,857	6,521
Payments for grids owned by third parties	4,590	8,834
Works for third parties	1,569	1,032
Addition to the provision for repair and maintenance	7,500	6,500
Addition to the provision for environment and demolition	6,636	-
	<b>38,532</b>	26,420

The transmission grid and operational system expenses increased in 2004 due to the inclusion of B.V. Transportnet Zuid-Holland's transmission grid operations for the whole financial year, compared to their inclusion in the comparative figures for only one month.

The payments for grids owned by third parties decreased because of tenner's acquisition of B.V. Transportnet Zuid-Holland, which operates the transmission grid in South Holland province.

## 21. Personnel expenses

Personnel expenses can be broken down as follows:

	2004	2003
Salaries	28,113	19,694
Social security charges	2,803	1,782
Pension contribution	4,285	2,556
Other personnel expenses	639	418
Addition to provision for staff benefits	411	6,151
Secondment at third parties	-/- 110	-/- 125
	36,141	30,476

The average number of staff amounted to 469 FTEs in 2004 (2003: 328 FTEs), of whom 439 FTEs (2003: 316 FTEs) were based in the Netherlands.

### *Remuneration of Board of Management and Supervisory Board*

The tables below show the remuneration of the members of the Board of Management and the Supervisory Board in so far as this is borne by the company.

Remuneration of the company's managing director:

		Basic remuneration	Variable remuneration	Employer's contribution to employee benefits	Total
J.M. Kroon	2004	267	60	50	377
	2003	256	37	44	337

The variable remuneration is based on the extent to which preset targets were achieved during the year under review.

Remuneration of the members of the Supervisory Board:

	2004	2003
R.E. Selman	20	20
C. Griffioen RA	18	16
J.F. van Duyne	16	16
J.F.T. Vugts	16	16
J. Stekelenburg	-	14
	70	82

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## 22. General administrative expenses

General administrative expenses comprise all costs and charges relating to accommodation, office automation, temporary staff hiring, staff recruitment, research, consultancy, office operation and travel.

## 23. Financial income and expenses

### *Interest income*

Interest income includes interest received on short-term deposits, and an amount of around EUR 2.3 million (2003: EUR 1.3 million) capitalised in respect of assets under construction.

### *Interest expenses*

Interest expenses relate to interest paid on loans, additions to provisions and amounts received in advance.

## 24. Taxation

Taxation can be broken down as follows:

	<b>2004</b>	2003
Corporation tax	<b>36,708</b>	27,192
Decrease in deferred tax receivables owing to tax rate reduction	<b>8,542</b>	-
	<b>45,250</b>	27,192

The tax burden in respect of the result for 2004 amounts to 35.6%. This differs from the nominal rate (34.5%) because of non-deductible amortisation of goodwill and other non-deductible amounts.

As the corporation tax rate will be reduced from 34.5% to 30% in 2005 and subsequent years, the deferred tax receivables will be realised at a lower rate.



## Company balance sheet as at December 2004 after profit appropriation

(x EURO 1,000)

Assets	Note	31 December 2004	31 December 2003
<b>Fixed assets</b>			
<i>Intangible fixed assets</i>		<b>9,101</b>	7,773
<i>Tangible fixed assets</i>			
High-voltage lines		210,417	222,021
High-voltage stations		251,112	252,704
Office buildings		15,953	11,487
Other tangible fixed assets		8,746	7,973
Assets under construction		82,493	25,408
		<b>568,721</b>	519,593
<i>Financial fixed assets</i>	26		
Participating interests in group companies		155,316	167,597
Receivables from group companies		82,809	67,610
Other participating interests		1,723	1,693
Deferred tax receivables		56,901	64,146
Other receivables		12,008	-
		<b>308,757</b>	301,046
<b>Current assets</b>			
Inventory		3,781	-
<i>Receivables</i>			
Accounts receivable		11,613	20,905
Receivables from group companies	27	289,823	280,513
Prepayments and accrued income		14,374	16,674
		<b>315,810</b>	318,092
<i>Cash at bank and in hand</i>			
Cash at bank and in hand not freely disposable		5,167	12,734
Other cash at bank and in hand		13,976	32,066
		<b>19,143</b>	44,800
		<b>1,225,313</b>	1,191,304

<b>Liabilities</b>	<i>Ref.</i>	<b>31 December 2004</b>	<b>31 December 2003</b>
<i>Shareholders' equity</i>			
Share capital	28	<b>100,000</b>	100,000
Appropriated reserve for specific risks		-	23,410
General reserve		<b>244,101</b>	192,828
Dividend proposal		<b>30,000</b>	22,936
		<b>374,101</b>	339,174
<i>Provisions</i>			
Provision for repairs and maintenance		<b>27,948</b>	22,361
Provision for environment and demolition		<b>19,800</b>	-
Provision personnel		<b>7,742</b>	7,802
		<b>55,490</b>	30,163
<i>Long-term liabilities</i>			
Other loans		<b>250,000</b>	100,000
Investment contributions received in advance		<b>74,574</b>	35,838
Amounts received in advance		<b>182,193</b>	182,410
		<b>506,767</b>	318,248
<i>Current liabilities</i>			
Amounts received in advance		<b>61,545</b>	116,447
Accounts payable		<b>8,595</b>	16,440
Collateral		<b>5,167</b>	12,734
Long term liabilities falling due within 1 year		<b>100,000</b>	50,000
Debts payable to financial institutions		-	242,611
Taxes and social security contributions		<b>30,137</b>	1,604
Payables to group companies	29	<b>12,207</b>	2,457
Accruals and deferred income		<b>71,304</b>	61,426
		<b>288,955</b>	503,719
		<b>1,225,313</b>	1,191,304

## Company profit and loss account for the year 2004

(x EUR 1,000)

Assets	Note	2004	2003
<i>Turnover</i>		<b>397,191</b>	342,407
<i>Operating expenses</i>			
Energy and capacity expenses	<b>144,168</b>		166,424
Transmission grid and operational system expenses	<b>52,177</b>		23,154
Personnel expenses	<b>30,208</b>		25,612
Amortisation/depreciation of fixed assets	<b>30,326</b>		25,156
General administrative expenses	<b>23,922</b>		16,090
		<b>280,801</b>	256,436
<b>Operating profit</b>		<b>116,390</b>	85,971
<i>Financial income and expenses</i>			
Interest income	<b>12,513</b>		8,840
Interest expenses	<b>21,888</b>		14,358
		<b>9,375</b>	5,518
<b>Result before taxation</b>		<b>107,015</b>	80,453
<i>Taxation</i>		<b>46,392</b>	27,894
<i>Share in result of participating interests</i>	29	-/- <b>2,615</b>	-/- 1,590
<b>Result after taxation</b>		<b>58,008</b>	50,969

### **25. Principles of valuation of assets and liabilities and determination of result**

The principles underlying the valuation of assets and liabilities and the determination of the result are the same for the company financial statements as for the consolidated financial statements. Consolidated companies are stated at net asset value.

The principles underlying the valuation of assets and liabilities and the determination of the result are outlined in the general notes to the consolidated balance sheet and loss and profit account on pages 59 to 64.

The notes to the company financial statements contain information that is supplementary to the notes to the consolidated financial statements.

# Notes to the company balance sheet as at 31 December 2004 and the company profit and loss account for the year 2004

(x EURO 1,000)

## 26. Financial fixed assets

Movements in the book value of financial fixed assets can be broken down as follows:

	Participating interests in group companies	Receivables from group companies	Other participating interests	Deferred tax receivables	Other receivables	Total 2004	Total 2003
Book value as at 1 January	167,597	67,610	1,693	64,146	-	<b>301,046</b>	80,646
Investments	-	37,832	-	-	12,285	<b>50,117</b>	224,580
Translation differences	-/- 145	-	-	-	-	<b>-/- 145</b>	21
Capital contribution	-	-	49	-	-	<b>49</b>	18
Deferred tax receivables	-	-	-	-/- 7,245	-	<b>-/- 7,245</b>	664
Redemption/amortisation	-	-/- 21,499	-	-	-/- 277	<b>-/- 21,776</b>	-/- 3,050
Provision	-	-/- 1,134	-	-	-	<b>-/- 1,134</b>	-
Value adjustment	-/- 2,732	-	-	-	-	<b>-/- 2,732</b>	-
Other movements	-/- 6,808	-	-	-	-	<b>-/- 6,808</b>	-
Share in result of participating interests	-/- 2,596	-	-/- 19	-	-	<b>-/- 2,615</b>	-/- 1,833
Book value as at 31 December	155,316	82,809	1,723	56,901	12,008	<b>308,757</b>	301,046

### *Participating interests in group companies*

Participating interests in group companies relate to the legal entities included in the consolidation (see page 58). The book value relates in particular to B.V. Transportnet Zuid-Holland (EUR 145.2 million) and APX B.V. (EUR 9.5 million). These two participating interests are valued in accordance with tenet's accounting principles. The value adjustment concerns a diminution in the value of the tangible fixed assets of B.V. Transportnet Zuid-Holland as determined at the time of the acquisition of its shares. This adjustment has led to a restatement of goodwill.

The other movement in participating interests in group companies concerns the difference in the depreciation of the tangible fixed assets of B.V. Transportnet Zuid-Holland as applied by tenet and B.V. Transportnet Zuid-Holland respectively.

### *Receivables from group companies*

Receivables from group companies relate to the funding of the following companies included in the consolidation:

	2004	2003
APX B.V.	<b>2,901</b>	7,000
B.V. Transportnet Zuid-Holland	<b>79,908</b>	60,610
	<b>82,809</b>	67,610

---

The loan to B.V. Transportnet Zuid-Holland relates to the funding of tangible fixed assets.

In 2003 a loan was extended to APX B.V. for the funding of energy exchange operations in the United Kingdom.

In 2004 loans were extended to Certichange B.V. and EEExchange B.V. for a total of EUR 1.1 million. A provision has been formed for the whole amount.

*Other participations*

These are tenner's other participations:

Share in capital

Endex N.V., Amsterdam	(10.13%)
La Société Holding des Gestionnaires de Réseau de Transport d'Electricité, Paris	(24.50%)
- Powernext S.A. (through La Société H.G.R.T.)	(17%)

## 27. Receivables

*Receivables from group companies*

Receivables from group companies can be broken down as follows:

	2004	2003
Stichting Beheer Doelgelden Landelijk Hoogspanningsnet	285,842	268,521
B.V. Transportnet Zuid-Holland	2,036	779
EnerQ B.V.	412	2,583
NLink International B.V.	1,507	1,281
Elined B.V.	26	66
Relined B.V.	-	5
TSO Auction B.V.	-	7,278
	<b>289,823</b>	<b>280,513</b>

Specifically earmarked funds received by tenner are administered by the Stichting Beheer Doelgelden Landelijk Hoogspanningsnet. This results in a current account receivable from this foundation.

## 28. Shareholders' equity

Shareholders' equity can be broken down as follows:

	Share capital	Appropriated reserve for specific risks	General reserve	Dividend proposal	Total 2004	Total 2003
Balance as at 1 January	100,000	23,410	192,828	22,936	<b>339,174</b>	288,184
Dividend	-	-	-	-/ - 22,936	-/ - <b>22,936</b>	-
Movement	-	-/ - 23,410	23,410	-	-	-
Translation differences	-	-	-/ - 145	-	-/ - <b>145</b>	21
Net result	-	-	28,008	30,000	<b>58,008</b>	50,969
Balance as at 31 December	100,000	-	244,101	30,000	<b>374,101</b>	339,174

### *Share capital*

As at the balance sheet date, the company's authorised share capital amounted to EUR 500 million, divided into 1 million shares with a nominal value of EUR 500 each. Some 200,000 shares have been issued and paid up. This item has remained unchanged during the year under review.

### *Appropriated reserve for specific risks*

The appropriated reserve for specific risks was formed in 2001 to cover against exceptional liability for risks resulting from potential electricity supply calamities. In view of the present level of shareholders' equity, an appropriated reserve for specific risks is no longer deemed necessary. The balance has been added to the general reserve.

### *Dividend proposal*

The Board of Management has proposed that EUR 30 million should be paid as a dividend to the shareholder.

## 29. Current liabilities

### *Payables to group companies*

Payables to group companies can be broken down as follows:

	2004	2003
APX B.V.	<b>360</b>	295
CertiQ B.V.	<b>707</b>	2,162
TSO Auction B.V.	<b>11,140</b>	-
	<b>12,207</b>	2,457

Payables to group companies arise as a result of central treasury policy.

### 30. Share in result of participating interests

The share in the result of participation interests can be broken down as follows:

	2004	2003
APX B.V.	-/- 2,897	-/- 2,751
B.V. Transportnet Zuid-Holland	-	807
CertiQ B.V.	-	-
EnerQ B.V.	-	-
NLink International B.V.	-	-
TSO Auction B.V.	25	32
Elined B.V.	39	-
European Energy Auction B.V.	248	101
Certichange B.V.	-/- 9	-
EEeXchange B.V.	-/- 2	-/- 7
Endex N.V.	-	243
La Société H.G.R.T.	-/- 19	-/- 15
	<u>-/- 2,615</u>	<u>-/- 1,590</u>

The result before taxation of APX B.V., excluding of amortisation of goodwill, totalled EUR 0.6 million in 2004 (2003: EUR -1.3 million).

	2004	2003
APX B.V.	1,703	2,472
NLink International B.V.	1,435	1,511
Elined B.V.	-	307
	<u>3,138</u>	<u>4,290</u>

The payment to APX B.V. relates to the settlement with the DTe regarding the value of APX's day-ahead market operations.

The payment to NLink International B.V. relates to services rendered to tenner in carrying out a feasibility study on the construction of a cable between the Netherlands and the United Kingdom.

Arnhem, 7 April 2005

The Board of Management:  
J.M. Kroon

The Supervisory Board:  
R.E. Selman  
C. Griffioen RA  
J.F.T. Vugts  
J.F. van Duyne  
A.W. Veenman

## Other Information

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### Profit appropriation

Article 38 (3) of the Articles of Association sets out the terms of the appropriation of profit. The relevant provisions read as follows:

Subject to Supervisory Board approval, the Board of Management may set aside such portion of the profit remaining following application of the provisions as per paragraph (2) as it deems to be appropriate in view of the funding of investments enabling the Company to acquit itself of its statutorily imposed duties in its capacity as grid administrator, which duties comprise maintenance, expansions and environmental aspects, inter alia. In so far as no such profit is set aside, it shall be at the discretionary disposal of the General Meeting of Shareholders. Allowance shall only be made in calculating the value of the earnings to be paid out per share for the value of the mandatory payments towards the nominal value of the shares. In the event of a tied vote concerning whether the profit should be paid out or set aside, the profit to which the relevant proposal relates shall be set aside.

The Board of Management proposes to distribute the result as follows (x EUR 1,000):

Allocation to general reserve	28,008
Dividend proposal	30,000
	<hr/>
Result after taxation	58,008
	<hr/>

The proposed addition to the general reserve has already been carried out. The proposed dividend payment to the shareholder is recognised as a separate component of shareholders' equity.

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## Auditor's report

To the Supervisory Board and Shareholder of tenneT, Transmission System Operator B.V.

### Introduction

We have audited the financial statements of tenneT, Transmission System Operator B.V., Arnhem, for the year 2004. These financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

### Scope

We conducted our audit in accordance with auditing standards generally accepted in the Netherlands. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

### Opinion

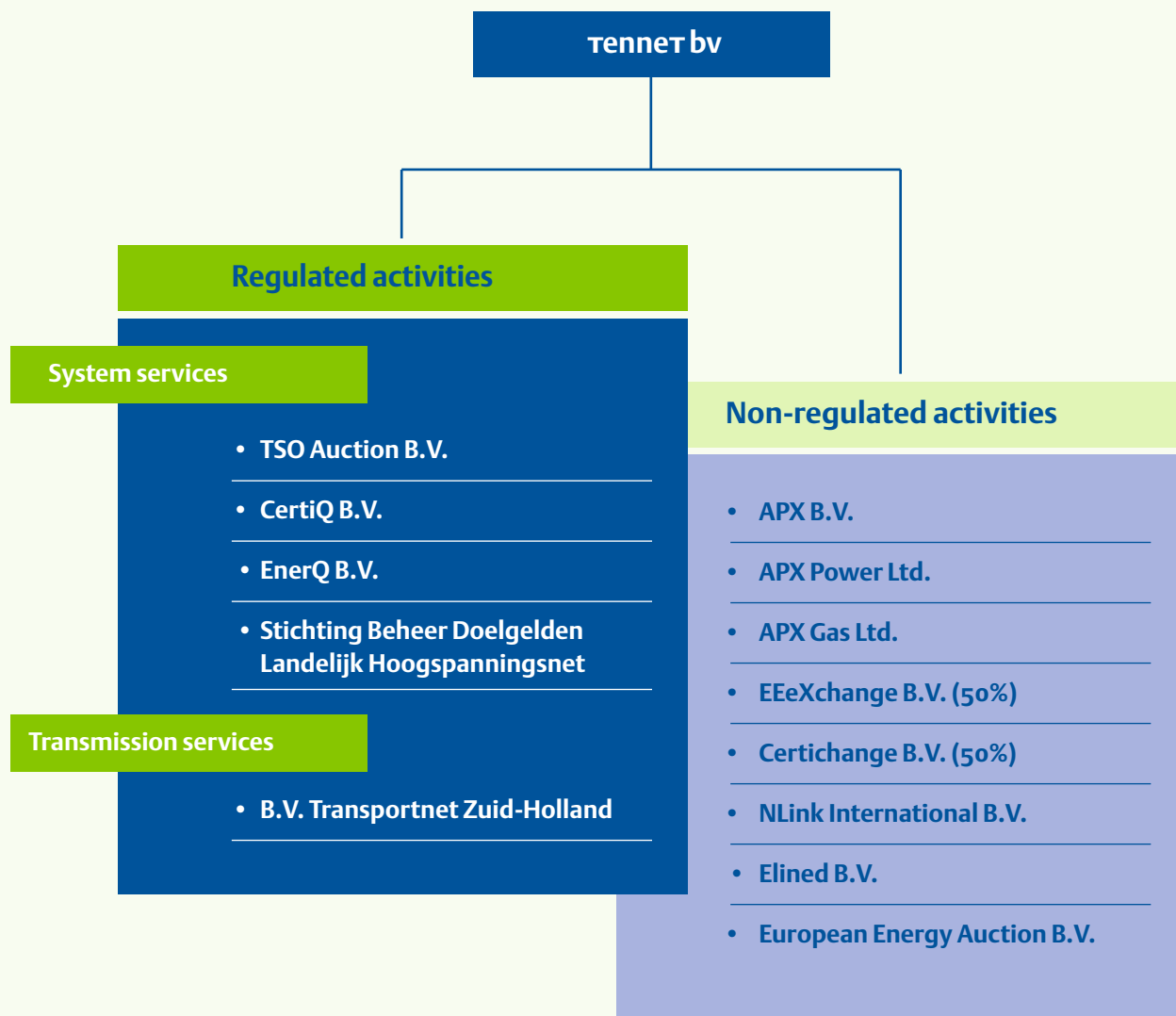
In our opinion, the financial statements give a true and fair view of the financial position of the company as at December 31, 2004 and of the result for the year then ended in accordance with accounting principles generally accepted in the Netherlands and comply with the financial reporting requirements included in Part 9 of Book 2 of the Netherlands Civil Code.

April 7, 2005  
PricewaterhouseCoopers Accountants N.V.

## General information

**tennet is the Dutch Transmission System Operator and the administrator of the domestic transmission grid. The organisation, which employs 423 staff, has private limited liability company status (in Dutch: 'besloten vennootschap'); its shares are held by the State of the Netherlands. From the perspective of Dutch society, tennet plays a pivotal part in the electricity market and, as such, is charged with important duties aimed at the realisation of an efficient market mechanism and transparency.**

- tennet on the strength of the Netherlands Electricity Act is the designated administrator of the 220kV and 380kV transmission grids, to ensure that the electricity transactions are channelled in the right direction, and as such is also referred to as the Transmission System Operator ('TSO').
- tennet monitors the continuity of electricity supply throughout the Netherlands and safeguards the reliability of supply.
- tennet ensures an adequate transmission grids.
- tennet is the administrator of the 150kV transmission grid in the province of South Holland.
- tennet makes the transmission grid available, on a basis of impartiality, for electricity transit as well as safeguarding the demand-supply balance in the Netherlands.
- tennet promotes the environmental quality of electricity supply.
- tennet seeks to ensure optimum service provision in support of a smoothly operating electricity market, both in the Netherlands and in other European countries. In this it adopts an innovative stance, deploying new services and products where appropriate.
- tennet entertains joint ventures with foreign TSOs and fellow organisations domestically so as to be able to acquit itself of its duties adequately.
- tennet applies an efficient operational management system to ensure a return that matches its corporate profile as well as safeguarding the business's long-term continuity.
- tennet devotes a great deal of attention to the creation, for the benefit of its workforce, of a motivating and inspirational working environment.



**tennet currently (March 2005) administers the following operations:**

### Regulated activities

tennet is primarily charged with the statutory remit in respect of the administration of the national transmission grid and the preservation of the necessary energy balance in the Dutch electricity grid. Several operations of an implementing and regulated nature have been delegated to tennet subsidiaries such as TSO Auction B.V., which provides for the auctioning off of import and export capacity on the five cross-border interconnections. A second tennet subsidiary, EnerQ B.V., implements on behalf of the authorities the subsidy remit in the context of the MEP regulation (which deals with the environmental quality of electricity generation), while a third subsidiary, CertiQ B.V., focuses on the issue and registration of Guarantees of Origin for sustainably generated electricity. It is crucial that operations such as these should be entrusted to an impartial and independent market player.

#### **TSO Auction B.V.**

Focuses on the auctioning off of capacity on the five cross-border interconnections of the high voltage grid (of which two are located on the Dutch-Belgian border and three on the Dutch-German border). German TSOs, E.ON Netz and RWE Net, and Belgian TSO, Elia, participate in the auction house's operations.

#### **CertiQ B.V.**

Issues certificates for sustainably generated electricity. These Guarantees of Origin have been designed to enable the calculation of sustainably generated electricity and are associated with the granting of subsidies by EnerQ. Registration and issue of the Guarantees takes place electronically, as does their trade.

#### **EnerQ B.V.**

Is in charge of the implementation of the grant remit in the context of the MEP (environmental quality of electricity generation) Act.

#### **'Stichting Beheer Doelgelden Landelijk Hoogspanningsnet' Foundation**

This Foundation has been established as a trust office for the allocated funds which tenneT in its capacity as administrator of the national high voltage grid collects in its implementation of statutory duties. These allocated funds concern revenue from imbalance set-off, imports by generating companies with commitments dating back to before the year 2000, and auction proceeds. tenneT is not allowed to use the allocated funds to fund its own operations, as they are earmarked for specifically designated purposes.

### **Non-regulated activities**

Alongside its regulated duties tenneT now also has several new responsibilities as a flow-on of its role as TSO, viz. supporting the market and ensuring that it operates smoothly. tenneT's very independence makes it a good thing that it should be entrusted with these duties. We apply clear-cut criteria in this context as to whether or not we should take on particular additional activities, in that these should in any event contribute to the enhancement of the transparency and efficiency of the Dutch energy market or to the environmental quality of energy. These activities support the statutory duties and do not in any way impinge on the latter. They must not be allowed to compromise tenneT's quality or its independence.

#### **APX B.V.**

APX Group, which is headquartered in Amsterdam, is a group of international short-term trade exchanges for electricity and gas in the Benelux and the United Kingdom.

- The core activity in the Netherlands concerns the day-ahead market for electricity, involving anonymous day-ahead contract trades (for next-day delivery) on an electronic trading platform using an electronic auction system, with the exchange providing for the financial settlement of the contracts and publishing a daily price index.
- **APX Power Ltd. (UKPX)**  
UKPX has been set up as the United Kingdom's first independent electricity exchange, to facilitate the anonymous non-stop trade in day-ahead and forward contracts. The British electricity for non-stop trade is a wholly-owned subsidiary of tenneT's subsidiary, APX.
- **APX Gas Ltd.**  
The British gas exchange for non-stop and day-ahead trade, APX Gas UK (formerly EnMO), facilitates two thirds of the aggregate daily gas trade in the United Kingdom. Owing to the

development of APX Gas's integrated trading platform, gas exchanges are being prepared for the Netherlands and Belgium in 2005.

#### **EeXchange B.V.**

Is a 50-50 joint venture between tenneT and Rabobank Netherlands. EeXchange is an electronic market which using a full-trade electronic trading platform facilitates the trade in NO<sub>x</sub> emission rights.

#### **Certichange B.V.**

As a 50-50 joint venture between tenneT and Rabobank Netherlands, Certichange is an electronic market which using a full-trade electronic trading platform facilitates the trade in Guarantees of Origin and RECS certificates.

#### **NLink International B.V.**

Having been specifically established for the purpose of developing and constructing international undersea cable interconnections, NLink is currently sounding out the scope for an undersea cable between the Netherlands and the United Kingdom.

- **BritNed Development Ltd.**

BritNed Development Ltd. is a 50-50 joint venture between NLink International B.V. and National Grid Transco. Established in London, it is charged with the development, realisation and exploitation of an Anglo-Dutch interconnection cable.

#### **Elined B.V.**

This subsidiary is in charge of leasing locations for telecommunication masts.

- **Relined B.V.**

This 50-50 joint venture between Elined B.V. and ProRail B.V. (as the administrator of the Dutch railway infrastructure) exploits the fibre optic infrastructure of the high voltage grid and the railway system.

#### **European Energy Auction B.V.**

Trading under the name EnergieKeuze, European Energy Auction B.V. is an on-line energy auction house that facilitates the trade in long-term contracts for the Dutch and Belgian wholesale market.

### **Minority interests:**

#### **Endex N.V.**

Endex has been established with the aim of developing a market for bilateral long-term transactions in the electricity market. tenneT is a 10.13% stakeholder in Endex.

#### **HGRT**

tenneT holds a 24.50% stake in holding company HGRT (La Société Holding des Gestionnaires de Réseau de Transport d'Electricité), via which tenneT participates in Powernext.

- Powernext

tenneT holds an indirect stake of 4.165% in this French electricity exchange.

# Organisation

## Shareholder

The State of the Netherlands

## Supervisory Board

## Supervisory Board



Left to right: A.W. Veenman, C. Griffioen, R.E. Selman, J.F. van Duyne and J.F.T. Vugts

		office taken up in (year)	reappointment in (year)	retirement by (year)
R.E. Selman ( <i>Chair</i> )	(1937)	1998	2006	2010
C. Griffioen ( <i>Deputy Chair</i> )	(1941)	2000	2008	2012
J.F. van Duyne	(1942)	2001	2005	2013
J.F.T. Vugts	(1942)	2001	2005	2013
A.W. Veenman	(1947)	2005	2009	2017

## Board of Management

J.M. Kroon

## Management

H. Drent	Personnel and Organisation Manager
A.A. Hartman	Corporate Affairs Manager
C.J.M. Meeuwis	Market and Regulation Manager
M.A.M.M. van der Meijden	Manager, Transport and Infrastructure Business Unit
Ms I. Rutgers-van Lingen	Finance Manager
B.G.M. Voorhorst	Manager, System and Control Business Unit

## Board of Management and Management

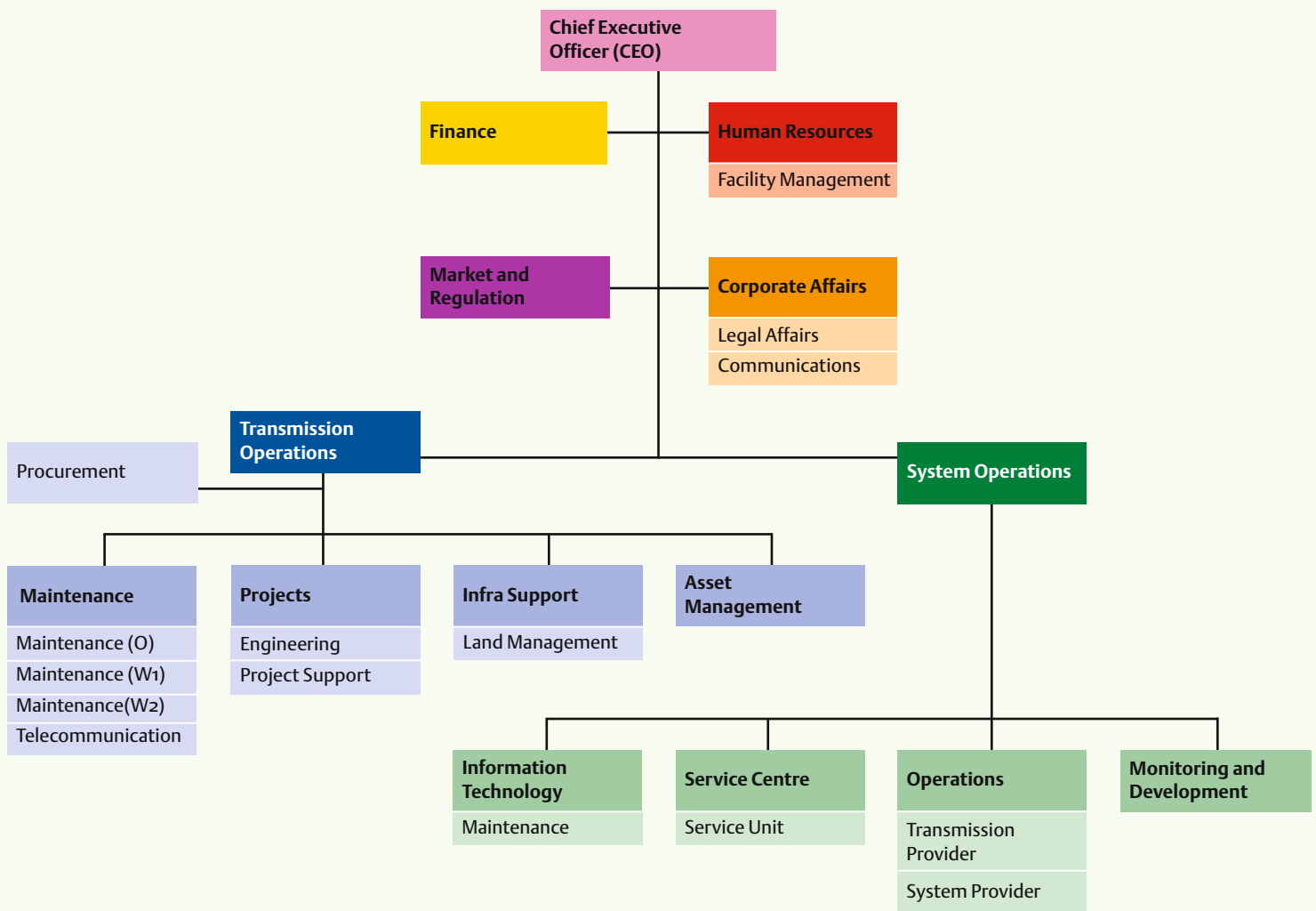


Left to right: I. Rutgers, H. Drent, B.G.M. Voorhorst, J.M. Kroon, M.A.M.M. van der Meijden, C.J.M. Meeuwis and A.A. Hartman

## Executive Management of wholly-owned subsidiaries

APX B.V.	B. den Ouden	Chief Executive Officer
	P. Verberne	Chief Operating Officer
TSO Auction B.V.	C.J.M. Meeuwis	Managing Director
EnerQ B.V.	P.M.E. Dirix	Managing Director
CertiQ B.V.	P.M.E. Dirix	Managing Director
Elined B.V.	J.W. Tom	Managing Director
NLink International B.V.	A.A. Hartman	Managing Director
European Energy Auction B.V.	J. Vroomans	Managing Director

# Organisation structure



### President and Chief Executive Officer (CEO)

#### **J.M. Kroon**

Mel Kroon (1957) has been in office as tenet's President and Chief Executive Officer since 1 January 2002, having previously, from 1997 to 2002, held the position of Managing Director of Hooge Huys Verzekeringen N.V., part of the Utrecht-based SNS Reaal Insurance Group, where in 1999 he was appointed Deputy Chair of the Executive Board of SNS Reaal Insurance.

Having read aeronautical and aerospace engineering at Delft University of Technology, Mel Kroon went on to complete his Master's in Business Administration at Rochester University/Erasmus University in Rotterdam. His career first took off at Fokker Aircraft N.V., where he held a variety of posts including that of Vice President for Marketing. He then transferred, first to Holec N.V. as Director for Marketing & Sales of the Traction Division, then to the SNS Reaal Insurance Group.

Mel Kroon currently holds the following additional offices: Supervisory Board member at Endex N.V., at APX B.V., at DTG and at Revalidatietechniek het Dorp, member of the ETSO Steering Committee, member of the Board of EnergieNed, and Chair of the 'Stichting Onroerend Goed Beheer Phoenix' Foundation.

### Supervisory Board

#### **R.E. Selman**

Ruud Selman (1937), who holds the position of Supervisory Board Chair, was appointed on 21 October 1998. His current term of office expires in 2006. Mr Selman additionally presides over the Supervisory Board of Trespa International B.V. and over that of Holland Colours N.V., as well as chairing the Advisory Committee for Technological Partnership Projects (Sender/Ministry of Economic Affairs) and the Board of the 'Stichting Administratiekantoor Aandelen ASM Lithografic' (Trust Office) Foundation and holding a seat on the Board of the 'Stichting Administratiekantoor Aandelen VOPAK' (Trust Office) Foundation and on that of the 'Stichting Administratiekantoor Aandelen Univar' (Trust Office) Foundation.

#### **C. Griffioen**

Cees Griffioen (1941) is the Deputy Chair of the Supervisory Board as well as chairing the Audit Committee. He was first appointed on 15 June 2000. His current term of office expires in 2008. Mr Griffioen also holds the position of Chairman of the Supervisory Board of Gas Transport Services B.V. and member of the Supervisory Boards of Berenschot Holding B.V., KAS BANK N.V. and SFB Holding N.V., as well as being a member of the Supervisory Council of Zorggroep Noorderbreedte and of the Board of Governors for Groningen State University's Postgraduate Controller Course.

#### **J.F.T. Vugts**

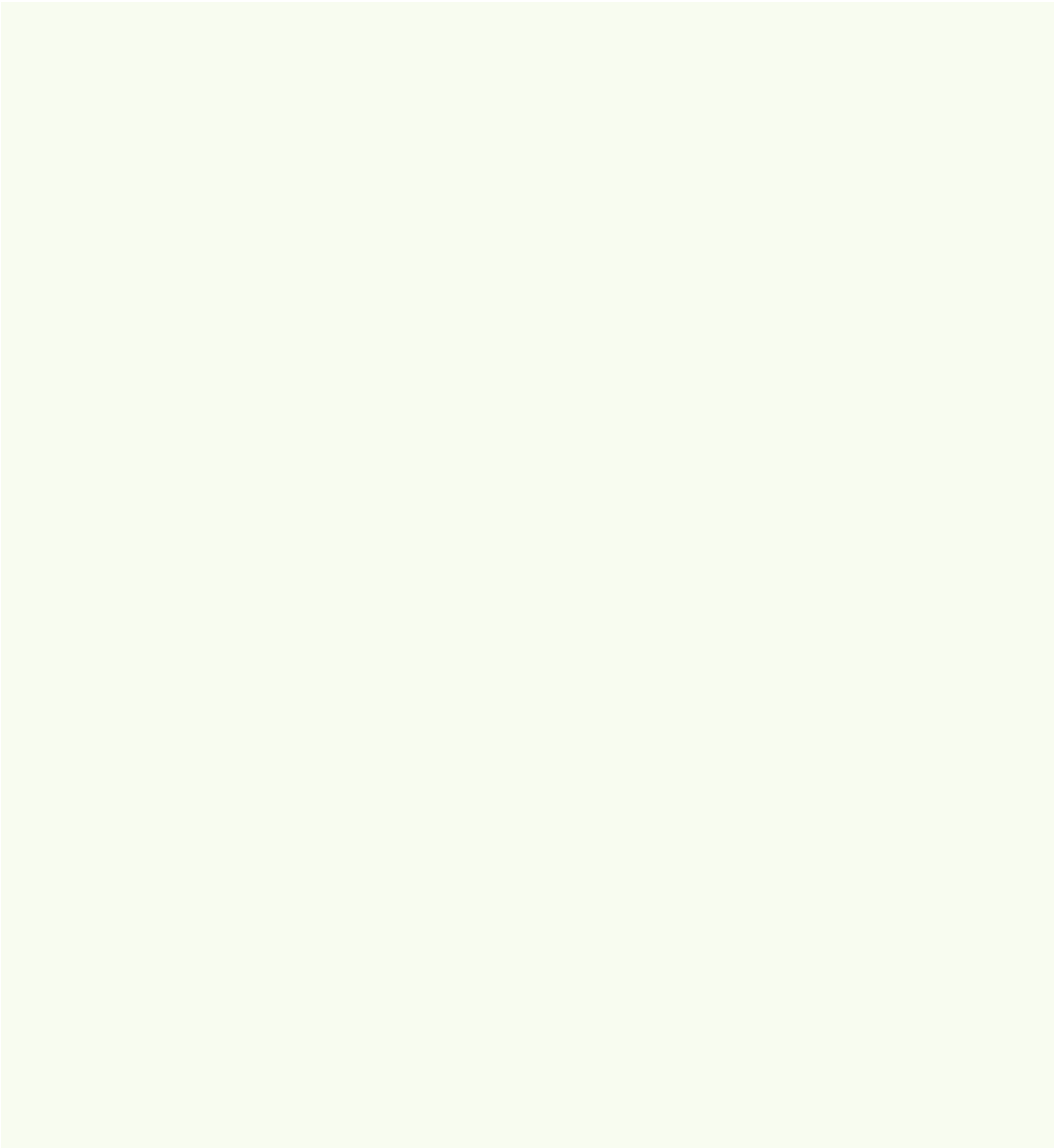
Jan Vugts (1942) was first appointed to the Supervisory Board on 17 July 2001, and is also a member of the Audit Committee. His current term of office expires in 2005. Mr Vugts additionally chairs the Supervisory Boards of Alewijnse Holding B.V., DKZET Offsetrotatie B.V. and Mercachem B.V., as well as holding a supervisory directorship at Van Grinsven Drukkers B.V. and being a member of the Board of the 'Stichting K.U.N.' Foundation and of that of the 'Stichting Administratiekantoor Wolters Kluwer' (Trust Office) Foundation.

**J.F. van Duyne**

Fokko van Duyne (1942) was first appointed to the Supervisory Board on 26 October 2001, for a term of office which expires in 2005. He additionally chairs the Supervisory Boards of Gamma Holding N.V. and OPG Groep N.V. and those of De Nederlandsche Bank N.V. (the Netherlands Central Bank) and Samas-Groep N.V. Mr Van Duyne also presides over Royal Verkade N.V. as well as chairing the Board of the 'Stichting Preferente Aandelen Royal Wegener N.V.' (Trust Office) Foundation and being a member of the Administratiekantoor Vedior N.V. (Trust Office), the 'Stichting Administratiekantoor Fugro N.V.' (Trust Office) Foundation, the Board of the 'Stichting Continuïteit Boskalis Westminster N.V.' Foundation and the 'Stichting Preferente Aandelen Buhmann N.V.' Foundation. Finally, Mr Van Duyne is a crown-appointed member of SER, the Social and Economic Council of the Netherlands.

**A.W. Veenman**

Aad Veenman (1947) was appointed to the Supervisory Board on 8 March 2005, for a term of office which expires in 2009. Mr Veenman has held the position of President and CEO of Netherlands Railways since 1 November 2002 and additionally took up the office of President of CER (European Railways) in January 2005, as well as holding a supervisory directorship at Rabobank Netherlands and chairing the Supervisory Board of Royal Ten Cate N.V.



## Colophon

### **Production and final editing**

*Corporate Affairs Department*

### **Design**

*Gerard Wagemans*

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*Chris Pennarts*

*John Scholten (page 27, 28 and 29)*

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*Daan Appels*

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### **tennet bv**

#### **Transmission System Operator**

*Utrechtseweg 310*

*P.O. Box 718*

*NL-6800 AS Arnhem*

*The Netherlands*

*Phone +31 26 373 11 11*

*Fax +31 26 373 11 12*

*E-mail [servicedesk@tennet.org](mailto:servicedesk@tennet.org)*

*Website [www.tennet.org](http://www.tennet.org)*