Annual Report 2001

TenneT

Transmission System Operator

Annual Report 2001

Arnhem, The Netherlands - June 2002

Table of Contents

General

TenneT *is the Dutch Transmission System Operator and administrator of the national high-voltage grid.*

Mission

- TenneT acts as the Netherlands' independent national grid administrator (transmission system operator, or TSO), with responsibility for enabling satisfactory power interchange throughout the country. Its powers and responsibilities are based on the Netherlands Electricity Act.
- To this end, TenneT ensures that the country has an adequate high-voltage grid.
- TenneT monitors and controls the reliability and continuity of power supply in the Netherlands.
- TenneT makes available its high-voltage grid for power transmission on an impartial basis, safeguarding the essential balance between supply and demand in the Netherlands.
- TenneT seeks to ensure an optimum service supply in support of a smoothly operating electricity market, both in the Netherlands and on the European plane. In this context, it takes an innovative approach, launching new services and products where appropriate.
- TenneT works in partnership with foreign TSOs and similar domestic organisations.
- TenneT operates on an efficient commercial basis, securing a return that is sufficiently high to safeguard the business's long-term continuity and attractiveness to shareholders.

AEX
Lightning-fast response
to digital equity prices worldwide.

Organisational Set-up

TenneT bv has a 250-strong workforce. It is a private limited liability company (in Dutch: "besloten vennootschap" or "B.V." for short), whose shares are held by the State of the Netherlands. In October 2001, the state acquired all shares in Saranne bv from NEA bv. Legal title to the national high-voltage grid has rested with Saranne bv since 2001, while beneficial ownership has remained with TenneT since its incorporation, in 1998.

TenneT operates five subsidiary companies:

TenneT bv

APX Spotmarket bv

This subsidiary operates the APX (Amsterdam Power Exchange) day-ahead market for electricity.

TSO Auction bv

This subsidiary auctions capacity at the five cross-border interconnections (two between the Netherlands and Belgium, the other three between the Netherlands and Germany) which form part of the high-voltage grid. Two German TSOs, E.ON-Netz and RWE Net, and one Belgian TSO, Elia, participate in the auctioneer's operations.

Greencertificate Body

This subsidiary issues electronic certificates as "proof of authenticity" for renewably generated power. These "Greencertificates" represent a proof of authenticy on which base the tax authorities can grant the supplier a tax exemption from the Regulatory Energy Tax ('ecotax').

Elined bv

This subsidiary leases the "dark fibre" capacity of the high-voltage grid's fibre optic network and also leases telecommunication antenna sites.

NLink International bv

This subsidiary develops and constructs international marine cable links, and in this context is currently exploring the scope for such a link between the Netherlands and the United Kingdom.

Michael, controller
'Keeping track of the decimals.'

Organisational Set-up

Shareholder
The State of the Netherlands

Supervisory Board		Term of office ends
R.E. Selman, Chairman	(1937)	2002
J. Stekelenburg, Deputy Chairman	(1941)	2003
J.F. van Duyne	(1942)	2006
C. Griffioen	(1937)	2004
J.F.T. Vugts	(1942)	2005

Board of Management
G.J.L. Zijl, President and Chief Executive Officer
J.M. Kroon (with effect from 1 January 2002)

Management
H. Drent, Personnel and Organisation Manager
A.A. Hartman, Communication and Legal Affairs Manager
G.A. Maas, Power System Operation Manager
C.J.M. Meeuwis, Market and Regulation Manager
I. Rutgers-van Lingen, Finance & Controlling Manager
P. Vermeer, Power System Infrastructure Manager
B.G.M. Voorhorst, IT Manager

Dairy industry
Safe food products for consumers.

Report of the Supervisory Board

In addition to maintaining the stability and reliability of the Dutch electricity supply system, optimising the quality of service provided to market players is a priority for TenneT. Wherever necessary, the organisation takes a lead role in ensuring that the electricity market functions properly. It is only possible to establish positions, initiate activities and bring about cooperation on the basis of independence and neutrality. Furthermore, TenneT's activities have to be consistent with its mission and within the parameters of the European market environment.

The European electricity market will be highly dynamic in the years to come. The number of eligible customers, i.e. those that have free choice of supplier, will rise sharply and barriers to free trade within the European Union will gradually be removed. Under the influence of these factors, diversity of supply and demand in the market will grow. A number of major European players will emerge. In addition, the long lead times for large-scale investment projects may cause tension within the market. It is against this background that TenneT must operate.

TenneT wants to respond flexibly to the demands of the market and to take an active role in making the market work. Because it occupies an independent position, for example, the organisation is able to make an important contribution to the transparency of the market, thereby promoting balanced development. By regularly supplying relevant information in good time, TenneT can help market players to arrive at balanced operational decisions. This is desirable both in relation to the way the market works and in relation to the security of supply. For similar reasons, TenneT actively seeks to promote international cooperation.

Increasingly, national legislation and regulations are influenced by decisions made at the European level. For this and other reasons, the Board believes that TenneT's European orientation will in the years ahead lead to more intensive cooperation with international organisations and greater contact with the institutions of the European Union. As an effect of liberalisation more attention will have to be paid to security of supply. Government and politicians are inclined to attribute a role to the independent TSO to monitor the reliability of the electricity supply system closely.

Cindy, receptionist
'TenneT, how may I help you?'

In the course of 2001, the Management Board produced a business plan for the period 2002 to 2006, setting out policy proposals regarding international cooperation and the strategic position and development of TenneT in the national and international electricity markets of the future. Against this background, the Board, in its supervisory capacity, approved various investments consistent with these policies. These included participation in the APX power exchange and, indirectly, in the Powernext exchange, as well as the establishment of subsidiaries to undertake new activities.

Other important matters considered by the Board in the year under review included the transfer of company shares to the state and government-related developments. The Board also looked at the future executive structure of the company in the context of proper corporate governance.

In its supervisory capacity, the Board has approved the annual accounts for 2001. The Board took note of the report made by the auditors, PricewaterhouseCoopers NV.

The composition of the Board changed in 2001. H. van Meegen left the Board and was replaced by J.F.T. Vughts. J.J. Verwer also stepped down and was replaced by J.F. van Duyne. The Board wants to express its gratitude to the retiring members for their contribution to the development of the company since its inception in 1998.

The Board would also like to take this opportunity to thank the staff, the management and the Executive Board for their dedication over the past year.

Arnhem, April 2002
R.E. Selman
President

Fresh bakery
Freshly baked bread at the crack of dawn.

Report of the Board of Management

Step by step to a European electricity market: improving the market in the Netherlands, Belgium, Germany and Luxembourg

As a result of the energy crisis in California, a political debate has developed in Europe about how best to safeguard the electricity supply during the transition to a liberalised market. This debate is still in progress, but all commentators agree that steps must be taken to ensure that the electricity supply remains secure, even once liberalisation is complete. This report focuses on the following topics:

- National and European energy policy
- Conditions for security of supply
- Monitoring market developments
- European developments
- Stimulating the regional electricity market: a single Benelux market

National and European energy policy

The long-term aim of the Dutch government's energy policy is a sustainable energy economy. The government's view was set out in *Energy report 2002, choices for the future,* which was published in March 2002 by the Ministry of Economic Affairs. The report presents an integrated plan for achieving a balance between the main objectives of energy policy in a market setting: security of supply, economic efficiency and environmental quality. While government has the role of guardian of the public interest, market players also need to play an active role in support of the public interest. The report indicates that the government will create appropriate conditions, in particular by creating a favourable climate for investment. It also underscores the importance of the international context: the European energy market can only flourish if the European Union offers harmonised rules for competition, regulation and market access, and gives due weight to the environmental aspects of electricity supply. The government has to provide a proper regulatory framework and sufficient transparency to enable the market to develop harmoniously. Energy market transparency is improved by the separation of supply and transport. The regulator should focus on ensuring that all parties have similar access to the networks and on controlling the monopoly functions. Transparency will enhance the predictability of the market, thus increasing investor confidence.

Frances, operational planner
'Tomorrow's demand and supply are always balanced.'

Obviously the electricity market has a European dimension, and issues such as security of supply and the promotion of competition have to be seen in that context. The stability of the electricity market is influenced by national and European energy policy - and harmonisation of the rules in this field - as well as by European economic developments. The European Commission is seeking to accelerate completion of the European electricity market. At the European Council summit meeting in Barcelona in March 2002, it was agreed that the non-residential energy market - which accounts for 60% of the total market - should be fully opened up in all Member States by 2004. Steps were also taken towards the creation of a uniform European energy tax. The agenda for the next summit, scheduled for early 2003, includes further liberalisation, security-of-supply provisions, regulation/supervision arrangements and tariff harmonisation. In the years to come, national energy policy will increasingly be influenced by European decision-making of this kind. Regulatory harmonisation between the Member States and moves to give equal weight to the environmental aspects of energy supply will gradually remove the differences between national markets.

Early in 2001, the European Commission published proposals for amendments to the Directive on the internal electricity market. The amended directive is intended to improve the way the market works and to pave the way for harmonised rules on cross-border electricity transmission, tariff structures and equal network access. The Commission also favours the commercial separation of network operation and supply activities, as well as mandatory monitoring of market developments by all Member States, with a view to ensuring security of supply. These are important preconditions for the realisation of a functioning European electricity market. The current transitional phase is characterised by substantial price differences between countries, brought about by specific features of the national regulatory regimes. Such imbalances could impede progress towards a single European market. Regulatory harmonisation within the European Union is urgently required, particularly in the field of energy taxation and in the context of moves to give environmental aspects commercial value through green certification and CO_2 emission trading. A level playing field for all parties in Europe is essential to prevent imbalances of the kind seen thus far. It is also important to strictly separate network operations from commercial activities. Independent network operation needs to be guaranteed in all Member States as a basis for non-discrimination and equal opportunity for network access.

A well-structured and harmonised open market without barriers is capable of establishing a balance between supply and demand. It should be noted, however, that generation is a

Paper mill
Without power, the process industry grinds to a halt.

very capital-intensive industry. In such an industry, the necessary investment will be made only if a consistent policy framework exists and if the longer-term investment environment is sufficiently stable and reliable. Even then, scope should exist for taking appropriate steps to secure supply in the event of the market failing to respond as it should. In this context, it is particularly important that situations that have the potential to compromise the security of supply are identified in good time.

Conditions for security of supply

An adequate electricity system is at all times capable of generating and transmitting sufficient power to meet demand safely and reliably. To this end, it is necessary not only to serve the load, but also to respond appropriately to unexpected fluctuations in demand or generating disruptions. Because electricity cannot be stored, this implies that sufficient generating capacity should be available to meet demand at any moment in time. Imbalances can lead to disruption, and to a domino effect that can ultimately result in a system blackout. These conditions give rise to the need for sufficient reserve capacity in the networks and also in the available generation capacity, both in the short and the long term.

In the past, system reliability was arranged in a public service setting that integrated all links in the chain of generation, transmission and supply. In a market setting where generation and supply are unbundled from transmission, this is no longer the case. With the translation of the European Directive for the internal electricity market into Dutch legislation the electricity market - that is: generation, trade aand supply - was put in the hands of free market forces. Access to the networks, transmission and transmission system operations are the regulated part of the business, supervised by government. The liberalised market should offer sufficient incentives to the unregulated market parties to guarantee an adequate level of security of supply throughout the production chain.

Herman, account manager
'Available to deal with customer requirements.'

Monitoring market developments

Security of supply depends not only on network access, capacity and development, but also on the availability and development of generating capacity. In particular, the permanent availability of sufficient reserve generating capacity in the national and international markets is essential for stable, uninterrupted supply. It is therefore imperative that the electricity market functions effectively.

The reserve factor - the ratio between installed capacity plus guaranteed imports and the highest system load in a given year - is presently 1.26. This figure has exhibited a downward trend in recent years that is expected to continue, falling to 1.23 in 2003 and 2004. Further declines will follow if new generating capacity does not become available. Cross-border trading within a dynamic European market is liable to influence the development of the reserve factor, as will the way market players adapt to the market environment and any risk-evading strategies they adopt. However, it will always be desirable to identify potential generating shortages well in advance; to this end, it is very important to monitor the development of supply and demand.

For government and market players alike, clear insight into market developments depends on the availability of objective information. Such information promotes transparency and thus contributes to a functional market. Awareness of potential future shortages in generating capacity enables market players to make appropriate investment decisions in good time. Through the analysis of objective information, it may also be possible to develop a normative standard for the minimum available generating capacity required in the Dutch market.

Within the current legal and regulatory framework, network safety is the primary focus of market information collection activities. The law would need to be amended to provide for collection of the information needed to compile an up-to-date overall picture of developments in international supply and demand over the shorter and longer term. The information that the relevant parties are required to supply would need to be extended and specified. If the market is to function properly, information relating only to the Dutch market is not sufficient for the market players' purposes. Steps therefore need to be taken to ensure that the appropriate information is available in neighbouring countries as well. The collection of such data is consistent with TenneT's current mission as a TSO, and with the strategy of operational cooperation with neighbouring TSOs. In collaboration with the relevant market players, TenneT intends to set up a system for collecting the necessary information without compromising anyone's competitive position.

Education

Computer in the classroom: never a dull moment!

European developments Both legally and physically speaking, the electricity market has a clear European dimension. Consequently, security of supply can be effectively guaranteed only by initiatives that have a similar European dimension. This issue is increasingly prominent in the field of European energy policy and in relation to completion of the internal European electricity market. The development of the European energy market, including European security-of-supply provisions, was given general consideration in the European Commission's green paper "Towards a European strategy for the security of energy supply", published in 2000. The subject is also addressed by the Commission's proposals. Directive concerning the internal electricity market (as mentioned). Specifically, the proposal is that Member States should be obliged to monitor and report on market conditions. In case the market fails to secure supply, i.e. to invest sufficiently in generating capacity, Member States will need to have a tendering system that may be used to commission the construction of new capacity. The Commission's proposals are still under discussion; decisions are expected in the course of 2002.

Stimulating the regional electricity market: a single Benelux market A truly European electricity market will not be established for some years. It is clear that liberalisation will progress in stages, on the basis of cooperation between countries. The barriers that presently exist seem likely to be removed initially at the regional level. TenneT and its partners in the Benelux region are presently working hard to do just that. The first aim is to create a single market for players in the Benelux, by removing internal borders and providing equality of access to the entire regional network. This will create a trade area with a volume of 180 TWh - about the size of the Spanish market. This market will have a unified system for handling imbalances and a single electricity exchange. At the region's external borders, a single system for the allocation of import and export capacity will operate. The existence of a Benelux trade area will significantly increase the liquidity of the market and thus provide a better basis for price development. Nevertheless, the establishment of a single Benelux trade area is not the ultimate objective; further extension will be needed.

Development of the regional market will also depend on the regional partners improving congestion management, i. e. the way day-to-day transmission bottlenecks and limitations between Germany, the Netherlands, Belgium and France are dealt with. To this end, it is important to have a well-organised system for exchanging data with other TSOs in a day-to-day operational context. As well as aiding congestion management, this should increase market transparency and provide market players with better information for operational purposes. Moves are also underway to increase cross-border transmission capacity between the Netherlands and Germany.

Vincent, human resource adviser
'Investing in our people, for example through training.'

These initiatives should ultimately result in transparent, market-based solutions for handling restrictions at the borders of the Benelux, Germany and France. Movements of the market will become more predictable, thus contributing to security of supply in the longer run. TenneT regards the regional approach as an important stepping-stone to the creation of a single open European electricity market without internal borders.

Hospital

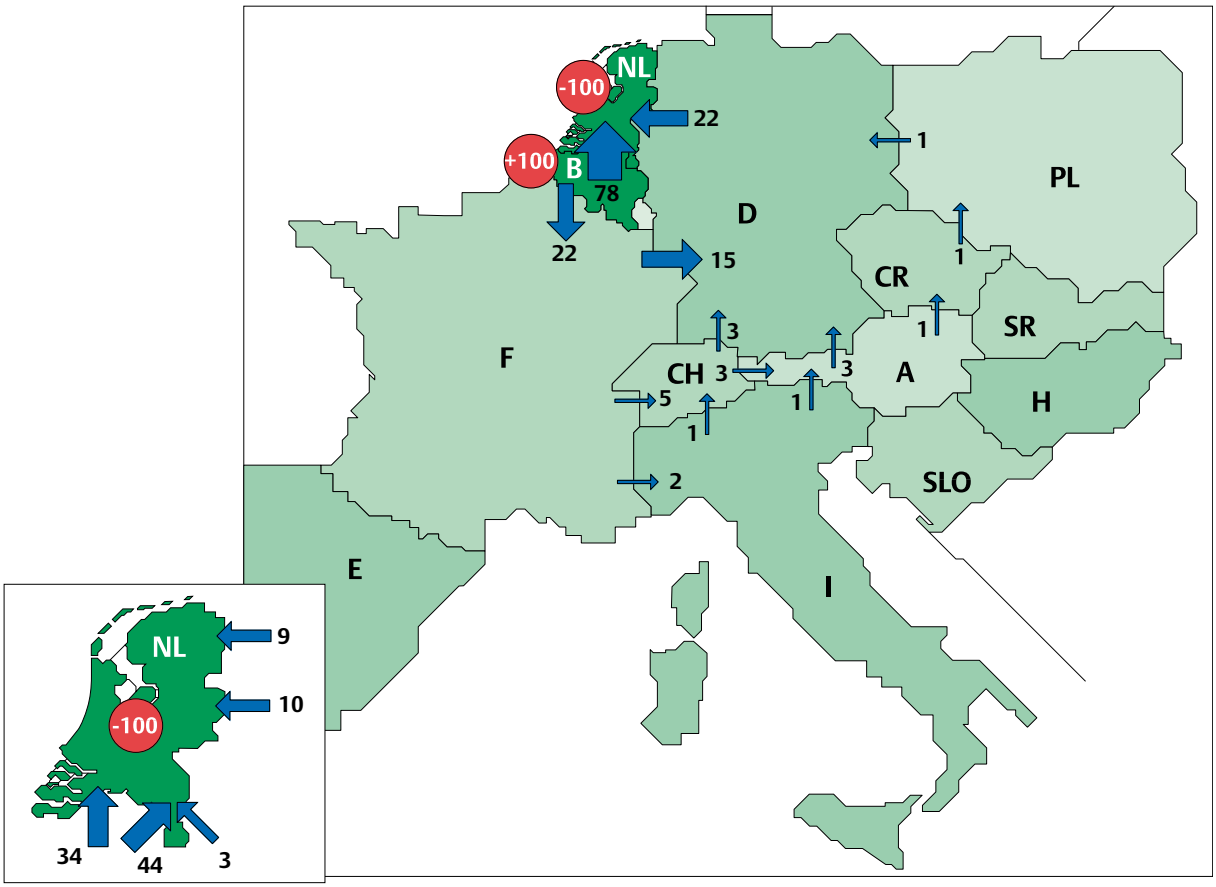
Perfectly spotless at precisely the right time.

Route of 100MW of power from Belgium and Spain to the Netherlands

Loadflowgraph

In actual fact it is only physical factors which affect the physical transmission runs within the extended European grid rather than that the latter are directly determined by the commercial transactions. Electrons cannot simply be sent from A to B; the flows within a high-voltage grid depend on the grid configuration, the location and level of power sourcing in the various locations within the grid, and level of power generation by the plants in the various locations. The graphs show the path of the flows in the event that 100MW is transmitted from Belgium or Spain to the Netherlands.

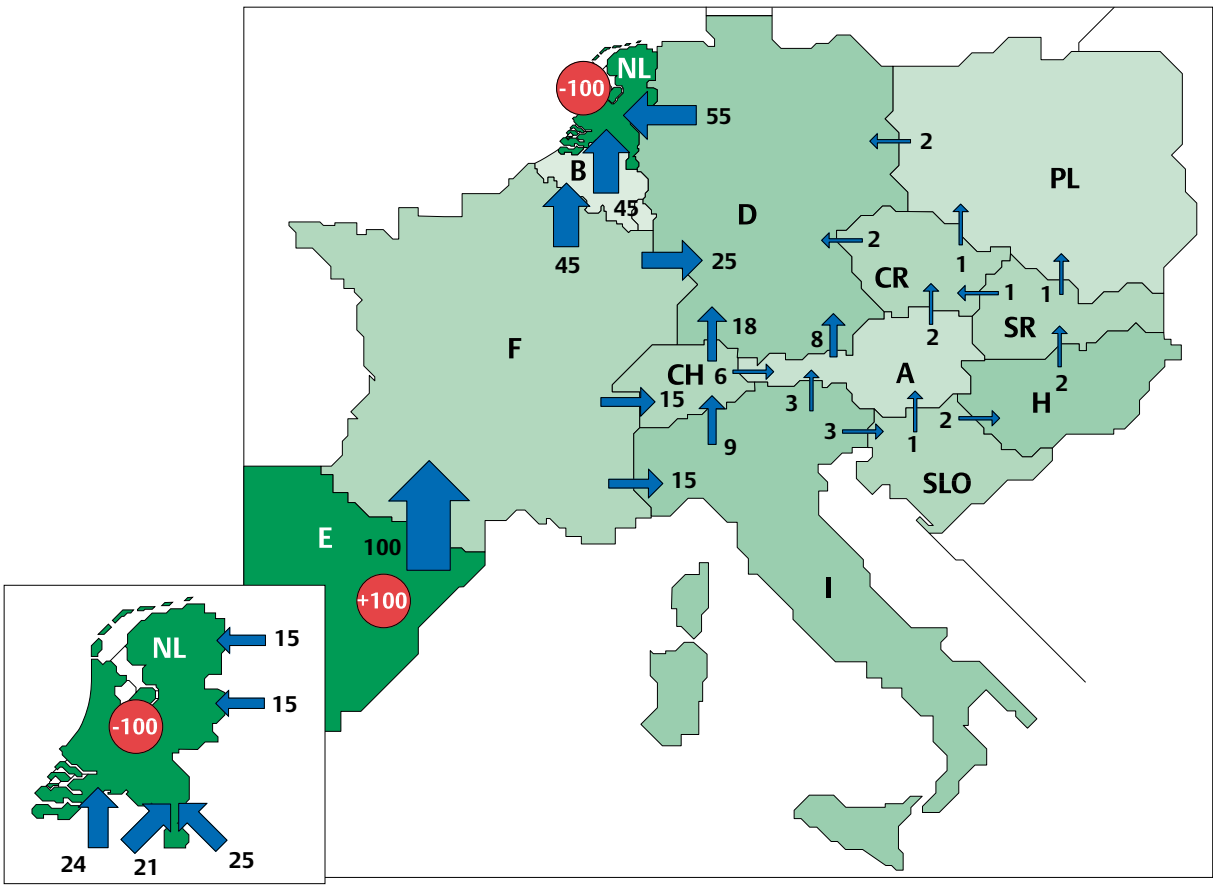
100MW from Belgium to the Netherlands



Henrie, project leader

'Getting that giant transformer to see up on time!'

100MW from Spain to the Netherlands



Politics
Settling on the energy policy for the coming years.

Annual Review: Policy, Business Operation, Organisation

Milestones 2001

January:	TSO Auction: first import/export capacity auctions
May:	Acquisition of APX Spotmarket shares
June:	Start of collaboration with Elia: preparation of the Benelux Marketplace
July:	Creation of NLink International to study of an Anglo-Dutch cable
July:	Launch of "Green Certificate" Body
July:	Creation of Elined for dark fibre leasing
August:	Construction work on the Meeden transverse regulating transformer started
October:	State acquires all TenneT shares
October:	(Indirect) participation in the French power exchange, Powernext.

Statutory and Regulatory Framework

State Shareholdership *The Netherlands Electricity Generating Sector Transitional Act* came into force on 1 January 2001. Under the Act, TenneT shares can no longer be held by generating companies, suppliers or energy market traders. Independent grid administration is regarded as essential for proper performance of the market, as it is one of the factors assuring non-discriminatory and transparent grid access. On 25 October 2001, the State of the Netherlands, acting in accordance with the outcome of the debate on the subject in the Lower House of the Dutch Parliament, acquired all shares in TenneT bv from NEA bv, as the legal successor to N.V. Samenwerkende elektriciteits-productiebedrijven (Sep), the Dutch Electricity Generating Board. It is the Minister of Economic Affairs' intention only to hold on to the TenneT shares for the few years that it will take to complete the dynamic transition to a fully liberalised market.

Regulatory Framework The system of price cap regulation provides for the fixing, for three-year periods at a time, of tariffs for regulated services (including grid administration). The Dutch Office of Energy Regulation (DTe) formulates the feasibility rules and defines such increases in service efficiency as it deems to be viable, making due allowance for general

Frits, communication adviser
'Consistent information, that's what a transparent energy market hinges on.'

price movements. For the first regulatory period (2000 to 2003), DTe set the efficiency penalty at 3% p.a. for each of the three years. The current regulatory system is the subject of considerable debate; TenneT is particularly concerned about the benchmarking method currently in use, which it considers less than ideal when applied to TSOs. Talks are underway between TenneT and DTe with a view to developing an appropriate and unambiguous benchmarking method, the grand plan being that DTe and several other European regulators in conjunction with the relevant TSOs are to provide for the proper benchmarking of comparable tasks, as the keystone of the efficiency score for the new regulatory period, which commences on 1 January 2004.

Market Facilitation

Resolving Transmission Constraints It is to the European electricity market's advantage that it should be able to make maximum use of the transmission capacity at international connections. Operationally speaking, TenneT collaborates with the grid administrators in the two neighbouring countries: Elia in Belgium, and RWE Net and E.ON Netz in Germany. Close collaboration is a must, as the systems are connected to one another through the cross-border interconnections and therefore directly affect one another. The TSOs had stated in advance in respect of 2001 that under normal circumstances, it should be possible to make a maximum of 3,600MW available to market players. As it turned out, however, no more than 3,350MW of reliable transmission capacity could be offered, due among other things to certain generation scenarios outside the Netherlands and to wind energy being fed into the grid in North Germany.

Closer operational collaboration will enable better safeguards to be provided regarding the capacity furnished, also in emergency situations. This implies that the partners together anticipate what capacity may reliably be offered to the market, both annually and in terms of supplementary capacity on a monthly and daily basis. Data communication is being improved as well, not only with Elia but also with EDF in France and E-Trans in Switzerland. It is of particular importance to the Dutch market that the daily exchange of data with the German grid administrators should also be stepped up, as this would make it possible to produce even more accurate projections. We have raised the issue of data exchange enhancement for discussion by UCTE, the umbrella organisation for grid administrators in Continental Europe. In a parallel development, Aachen University of Technology is developing a joint forecasting model, to be utilised by the auctioning TSOs. This forecasting model, a prototype of which was tested in November 2001 and which is

Telecommunication
Enough cables to enable communication.

scheduled to go live in 2002, should enable the accurate daily calculation and identification, on the basis of data exchange, of the maximum capacity that can reliably be made available.

Work is also underway on a system for allocating the costs associated with bottleneck clearance measures. Although this system anticipates the formation of a European market, it is being initiated at the regional level.

Maintaining the Power Balance

As the national TSO, TenneT must have sufficient power at its disposal if it is to successfully maintain the balance and facilitate transmission runs. This power needs to be available for dispatch at any time if TenneT is to succeed in providing its grid and system services in support of the Dutch electricity system. On 1 January 2001, a new procedure came into operation for the market procurement of power and other services. The relevant market players and regional grid administrators were closely involved in the launch of this procedure.

TenneT dispatches regulating and reserve power in order to enable the real-time power balance to be maintained. This is done on the basis of a tendering system. In addition, contracts for regulatory and emergency power are concluded so as to enable the set-off of involuntary exchanges with other countries and to compensate for grid losses. Moreover, agreements have been made with generating companies and regional grid administrators with a view to enhancing voltage management. The costs involved are to a large extent included in the regulated tariffs, whereas the imbalance system is based on the principle that the party causing an imbalance pays the cost of imbalance redress by TenneT (in order to encourage operational efficiency on the part of the market players).

Stability in the imbalance market is particularly important in terms of ensuring that the market functions properly. Pricing depends on upward and downward adjustment bids being tendered. TenneT dispatches the most competitively priced power that meets the preconditions. A less competitive price will have to be paid where there is limited supply and substantial demand. The greater the number of participants in the regulating and reserve power market, the steadier the imbalance price will be. Imbalance price fluctuations were seen in early January 2001, as market players adjusted to the new tendering system. Although not all players consistently met the Codes' requirement to make all their reserve power available, the quality of the balance relative to other countries was nevertheless maintained at a similar level to that seen in previous years. It is TenneT's intention to involve foreign market players where possible in the regulatory, reserve and emergency power market.

Harm, line maintenance specialist
'I inspect the lines, from one pylon to the next.'

Market Transparency One of the crucial preconditions for satisfactory market performance is that all players should have the same adequate information at their disposal. Market transparency is enhanced by ensuring that decision-support information is simultaneously made available to all market players at an appropriately early stage, as this translates into greater market liquidity and steadier pricing.

In this context, TenneT enlisted the services of the Brattle Group research institute to investigate price peaks on the Amsterdam Power Exchange (APX) and the high imbalance prices which had occurred in mid-2001. The outcome of this survey was published in November in Brattle Group's report "Recommendations for the Dutch Electricity Market". The report explained that the high prices had been the result of market players not having the information they required, particularly regarding the non-availability at that time of considerable generating capacity (1,000MW). It was recommended that more up-to-date information concerning the non-availability of generating capacity in Belgium and the Netherlands should be furnished. In addition, it was suggested that figures dealing with the aggregate hourly load on the electricity system itself and more detailed information regarding cross-border transmission runs would enable market players to gauge their position with greater accuracy. The market players themselves suggested a number of specific improvements to the imbalance market mechanism. Most of their suggestions will be implemented by
mid-2002, when TenneT will increase the frequency with which additional imbalance market data and details of the aggregate generating capacity available to the Dutch market are released.

On the same theme, the independent Market Surveillance Committee, which was established in mid-2001 by NMa, the Netherlands Competition Authority, and DTe, the Dutch Office for Energy Regulation, published its recommendations for the enhancement of market transparency, based on a study of price developments and the conduct of market players. These recommendations largely concur with the conclusions of the Brattle Group report.

Logistics
Transport along the water and by rail.

Subsidiary Companies

Participation in APX and Powernext Power Exchanges

TenneT acquired the APX Spotmarket shares from APX, the Amsterdam Power Exchange, on 16 May 2001. An independent day-ahead market is crucial for the proper development of the Dutch electricity market, in addition to which synergistic benefits are to be gained through close reconciliation of our TSO-operations. Operation of the day-ahead market has been delegated to a wholly owned TenneT subsidiary. Attention has been devoted to issues such as the mutual optimisation of operational processes. In 2001, a total of 8.4 million MWh was traded on the APX, representing some 9 per cent of the aggregate net power consumption in the Netherlands. The volume of trading went up further in the initial months of 2002. In October 2001, TenneT acquired a 4.165% indirect stake (via HGRT) in Powernext, the French power exchange, in the context of the development of European power exchanges.

TSO Auction bv

TSO Auction began trading on 1 January 2001. It acts as an auctioneer, with the object of allocating capacity at the five cross-border interconnections. A wholly owned TenneT subsidiary, TSO Auction sells capacity at the German and Belgian borders through annual, monthly and daily auctions. The two German TSOs, E.ON Netz and TWE Net, and Belgian TSO Elia participate in TSO Auction's operations, thus enabling capacity on either side of the border to be auctioned in a single process. The electronic auctions were conducted with very few hiccups and proved to be an eminently suitable mechanism for allocating scarce transmission capacity. The auction prices reflected developments between the various German, Belgian and Dutch markets. Further improvements were made to the auctioning system in the course of the year, with a facility being put in place to enable the switch to be made to an alternative auctioning system in the event of electronic failure.

The proceeds of the auction are distributed to the participating grid administrators. TenneT uses its share of the proceeds to remove transmission capacity constraints or expand the transmission capacity available at the cross-border interconnections. Subject to consultation with DTe, it may also use the proceeds for other market facilitation and promotional purposes. As capacity increases and price discrepancies diminish in the years ahead, auction revenue is expected to decline. It is worth noting, however, that the proceeds of the annual auction for 2002 were about 50 per cent up on 2001, due to a special “green energy” tax scheme operating in the Netherlands, which makes it particularly attractive from a tax point of view for market players to import renewable energy. Because of this scheme, players were happy to pay a higher price even though they

Lodewijk, senior IT adviser
'IT infrastructure: super, for bulk digital data traffic.'

knew that the import capacity would be stepped up in the course of 2002. Tax discrepancies between the various European countries are having a distorting effect on the market, with market players happily choosing to pay relatively high prices in the knowledge that tax benefits are available in particular countries by way of compensation. Harmonisation in this respect would prevent major price discrepancies arising between the various market zones.

Elined bv

Elined was formed in July 2001. This TenneT subsidiary leases the "dark fibre" capacity of the high-voltage grid's fibre optic network and also leases telecommunication antenna sites. In addition to telecommunication providers, the Elined client base also includes radio communication operators. The leasing of space on high-voltage pylons for the installation of antennas is beneficial in spatial planning terms, as it avoids the need to erect unsightly new antenna masts. It is expected that the launch of third-generation mobile telephony will boost the demand for suitable antenna sites. The use of high-voltage pylons is particularly beneficial in rural areas. The possibility of collaboration with Railinfrabeheer, the Dutch rail track management company, is currently also being looked into. If TenneT's fibre optic infrastructure were hooked up with that maintained by Railinfrabeheer, the resulting network would be particularly attractive.

Greencertificate Body (Groencertificatenbeheer bv)

On 7 May 2001, the Minister of Economic Affairs issued a ministerial decree requiring TenneT to create a "Green Certificate" system by 1 July. Renewable Energy ("Green") Certificates are a vital tool for enabling and encouraging the trade in renewably generated ("green") power. The market requires a reliable and independent system for demonstrating that power has indeed been generated on a renewable basis. Tax authorities can grant the supplier a tax exemption based on these "Greencertificates".

Operation of the Green Certificate system has been delegated to Groencertificatenbeheer bv, a wholly owned TenneT subsidiary, which acts as the issuing and registration body. Regional grid administrators furnish measured data pertaining to generating plants classed as "green" under the relevant statutory regulations. Tradable certificates are automatically generated on the basis of this data. Following a start-up phase, the first batch of Green Certificates was duly issued on 19 July 2001, their launch proceeding satisfactorily. By 1 January 2002, the group of Green Certificate users had expanded to include some 700 generating companies and fifty traders. By that time, the number of Green Certificates issued in a variety of denominations was 136,000, representing a total of 663 million KWh of power from renewable sources, mainly biomass and wind energy.

Since 1 January 2002, Green Certificates have been made available for renewable electricity from other countries. To make this possible, the issuing and registration body has amended its rules in line with a ministerial decree published in October. The Dutch system is now more consistent with foreign procedures, regulations and organisational structures. As the various countries have designed their certificate systems in different ways and a number of voluntary certificate systems have also emerged, we are currently looking into the possibility of modifying the Dutch system to recognise other types of certificate. In this context, 'Greencertificate Body' is to contribute to the development of RECS, the European Renewable Energy Certificate system. The system could also be useful if a system of environmental quality labelling were introduced in the Netherlands for all kinds of power, as the current system measures the volume of power fed into the grid at the source (i.e. the generating plant). The issue of CO_2 certificates is another service that might be offered by Greencertificate Body in the future.

NLink

In addition to expanding the transmission capacity of existing cross-border high-voltage lines, a structural improvement in the Netherlands' import/export capacity could be effected by constructing marine cables. With this in mind, NLink bv, a wholly owned TenneT subsidiary, was set up in July 2001. An initial feasibility study has since been conducted into the possibility of creating a marine link between the United Kingdom and the Netherlands, the one-hour time difference and the load profile difference between the two countries making a marine link a potentially viable option. The study was carried out by BritNed, a joint venture between NLink and National Grid Company plc, the British TSO. The technology, licensing aspects and scope for economic exploitation of the direct-current 1,320MW Anglo-Dutch interconnector cable are currently being looked into.

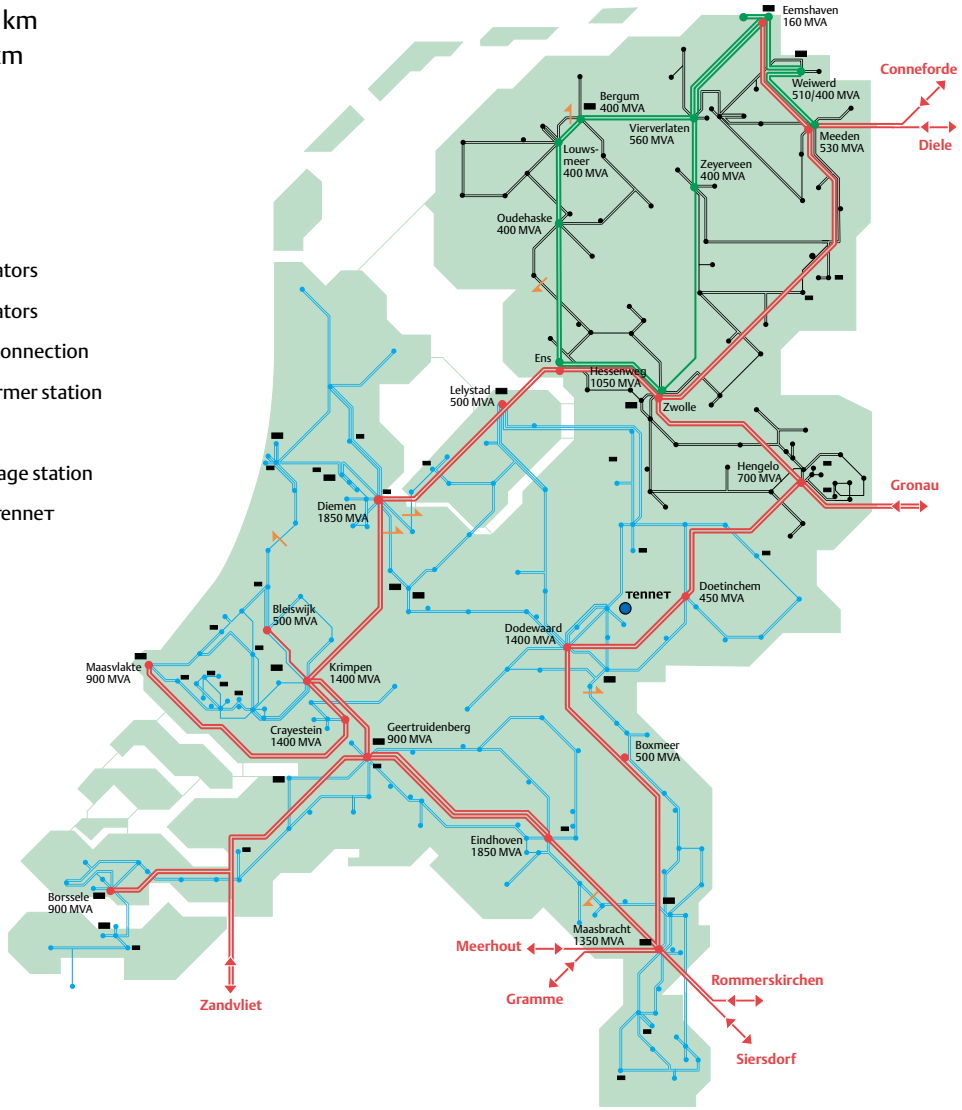
The allocation method also warrants special attention, in view of the regulation of grid access in Europe, with decisions concerning realisation expected in 2003. TenneT is particularly concerned that capacity should be available to the free market while the financial risks involved should be kept in check.

Dutch high voltage grid, situation as at 1 January 2002

≥110kV and powerplants ≥ 60MW

Circuitlength 380kV 2003 km
Circuitlength 220kV 683 km

- 380kV TenneT
- 220kV TenneT
- 150kV regional gridoperators
- 110kV regional gridoperators
- 380kV crossborder interconnection
- switching and/or transformer station
- Ens — stationname
- 900 MVA — DC connection, high voltage station
- National Control Center TenneT
- line apertures
- power plant 60 - 250MW
- power plant ≥ 250MW



Infrastructural Projects

We are constantly seeking to optimise the nation's electricity infrastructure. Through our infrastructure projects, we aim to realise a reliable, problem-free grid system capable of meeting the market's transmission requirements. The new and ongoing projects in which we are involved are summarised below.

Construction of a 380kV station at Borssele
Good progress is being made with the construction of a new 380kV station at Borssele to remove a transmission bottleneck created by the growth in cross-border trade between the Netherlands and Belgium.

Maasbracht station
A reserve transformer has been installed, which will be connected to the 150kV grid in 2002.

Alternative emergency centre for TenneT
The redundancy principle is applied in the installation of vital control and protection components in the national high-voltage grid and the associated communication equipment. To further reduce the vulnerability of these systems, an alternative emergency centre is being constructed at a separate location.

Meeden phase shifter project
The aim of this project is to facilitate improved control and distribution of import flows at cross-border interconnections, thereby increasing capacity by roughly 1000MW. The project is on schedule, with the phase shifters due to enter service in the summer of 2002.

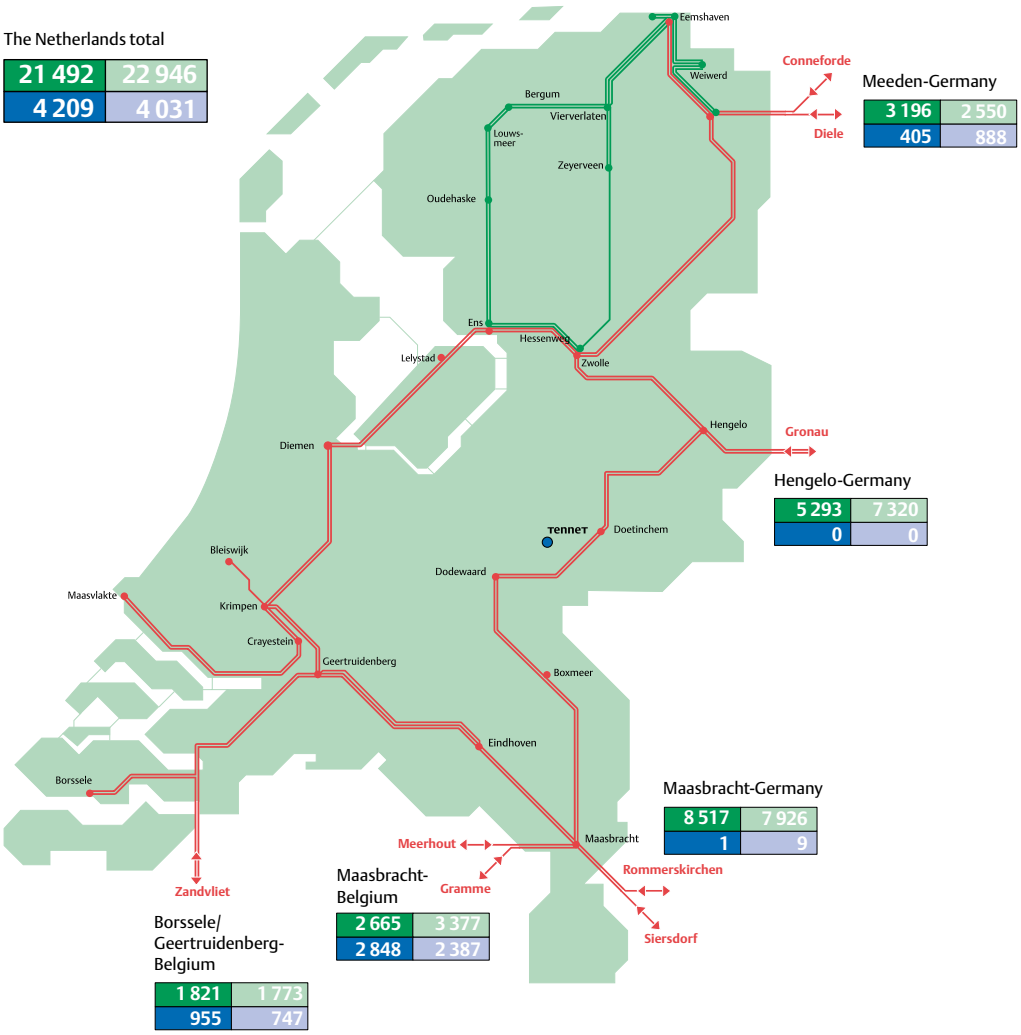
Voltage management project
The voltage management project will enable TenneT to compensate for the effects that increased energy transmission via the national high-voltage grid has on voltage management.

Creation of 380kV North and South Holland link
A new ring system link running from Diemen to Zoetermeer via Oostzaan and Beverwijk is required to reinforce the infrastructure serving the Netherlands' western conurbation. In preparation for the creation of this link, construction work is soon to start on 380kV stations at Oostzaan and Beverwijk, and the Diemen-Beverwijk high-voltage line is being upgraded from 150kV to 380kV.

Imports and exports (including transit) measured per cross-border interconnector

Total for 2001, x GWh

The graph shows the import and export totals in GWh for 2001 of the cross-border transmission runs per cross-border interconnector (as measured) as well as stating the total for the Netherlands.



Legenda

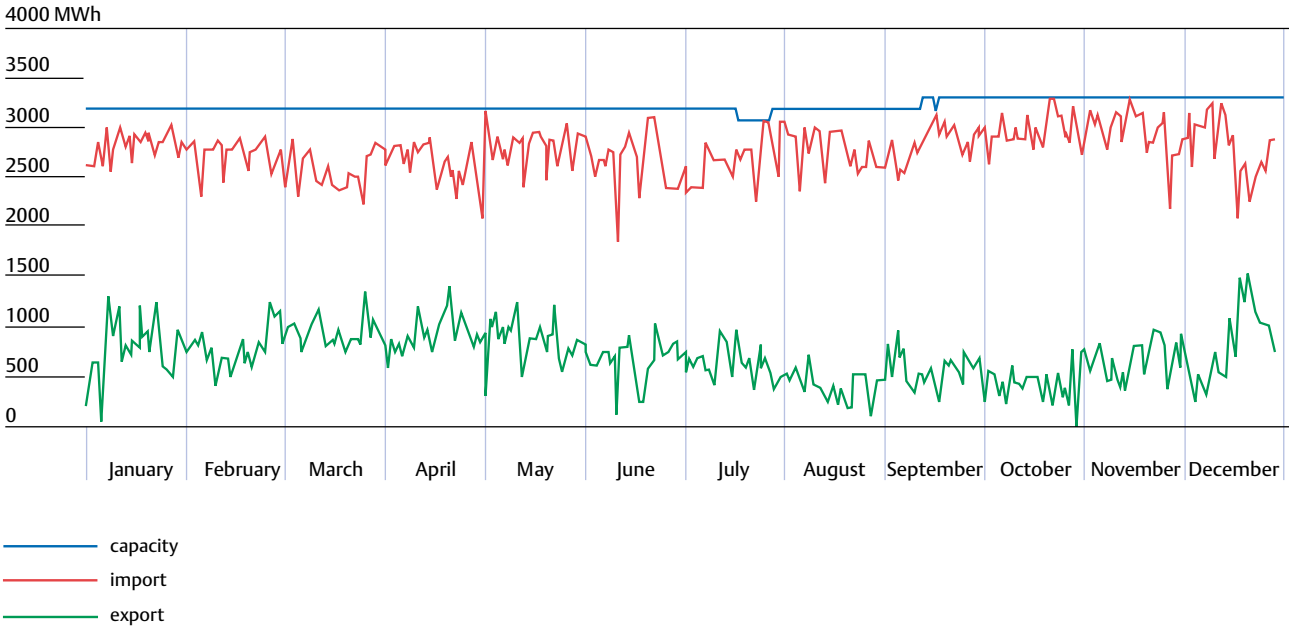
import in GWh
export in GWh

2001 2000

Cross-border exchange

Daily programme maximums in the year 2001

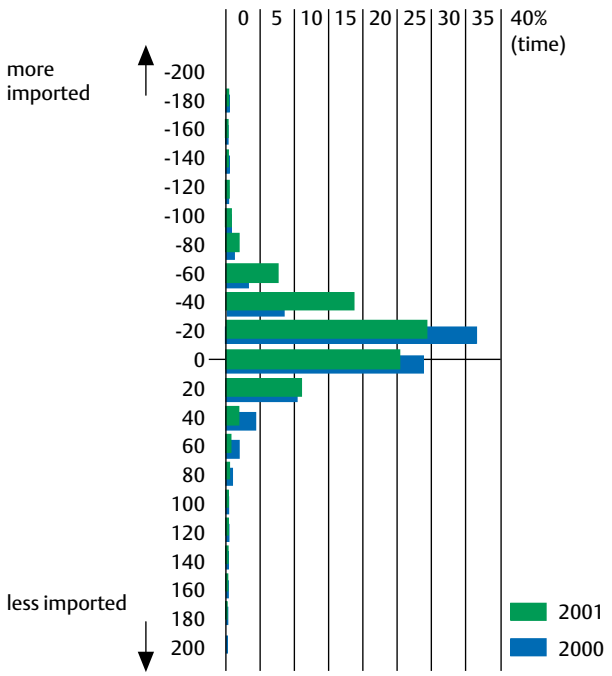
The graphs show the maximums of the import capacity released on a daily basis.



Degree of imbalance in the Netherlands compared with other countries

Hourly values 2001

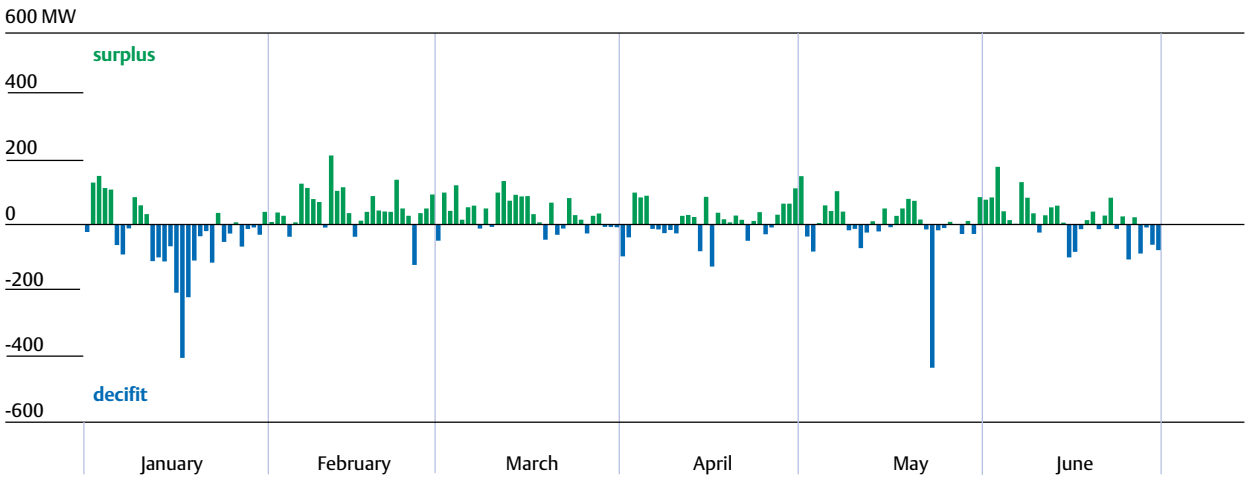
The discrepancy in relation with the exchange programmes with other countries turned out at nil during 24,6% of the time.

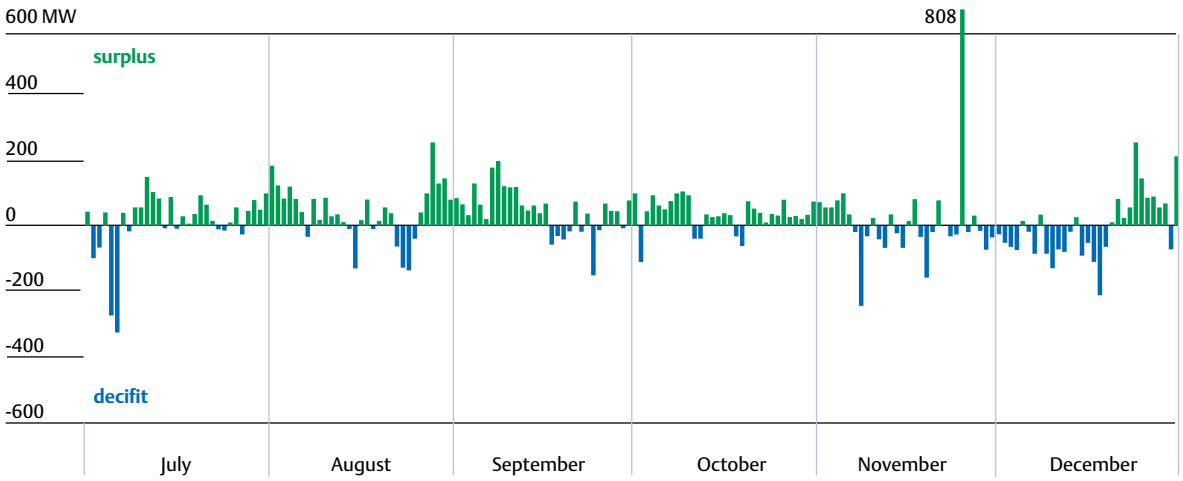


Imbalance on daily basis of all Programme Responsible Parties (PRPs)

1 January to 31 December 2001

The aggregate hourly imbalance (x MW) of all PRPs on a daily basis (excluding B.V. NEA) is shown in two different ways. The summary starts on 10 July, this being the date on which imbalance settlement was launched. The bars indicate the sum total per day, i.e. the difference between the positive and negative imbalances of the PRPs.





Imbalance on daily basis, average per hour

Availability of 380kV and 220kV high-voltage grid

The availability rate of the 380kV and 220kV transmission grid amounted to 99.3% for domestic connections, against 98.7% for cross-border interconnections. Virtually all non-availability was accounted for by maintenance work and project activities having been anticipated and planned in advance. No transmission interruptions occurred.

Non-availability of 380kV and 220kV grid

	number of connections	standard planned/not planned	result planned/not planned
domestic	55	1,5/ 0,03 %	0,7 / <0,01 %
cross-border	10	1,4/ 0,03 %	1,3 / 0 %

ANA = Anticipated Non Availability (planned maintenance, projects)
INA = Inadvertent Non Availability (interruptions, failure)
% = percentage of non-availability transporttime

Figures Greencertificate Body

Amount of certificates issued: 136,227

Sorts of green energy	**(in MWh)**
Biomass	374,107
Water	41,083
Sun	32
Wind	248,085
Total of green energy submitted in MWh	663,307

Theme park
Upside down, around the bend
and you're home and dry.

Personnel and Organisation

TenneT is a knowledge-based organisation, employing 250 mainly specialist staff and contracting out the practical activities involved in the discharge of many of its responsibilities. Its relative leanness enables the organisation to operate with great flexibility and respond appropriately to changes in the wider environment. TenneT performs some of its new activities itself, while delegating others to subsidiary companies. The provision of services to such companies is covered by service level agreements.

In the years ahead, TenneT wishes to enhance the flexibility of those working within the organisation and to promote innovation. TenneT's future success depends partly on recruiting and retaining suitably qualified staff. To this end, the company promotes coaching-oriented leadership, the proper delegation of powers and responsibilities and the utilisation of individual employees' personal qualities. In this context, the associated core competences of integrity, customer orientation, flexibility and professionalism are of particular importance, and are accordingly promoted through targeted training programmes.

Such activities are designed to tie in with the staff appraisal survey conducted during the year under review. Although generally positive, the survey findings did identify a number of areas where improvement is required. During the year under review, a staff health programme was launched to promote physical fitness.

Anco, chief duty engineer

'Constantly checking the system to keep everything under control.'

Safety at Work and Environmental Issues

No environmental incidents or work-related accidents occurred on the high-voltage grid in 2001. We organised several training programmes for external service providers, to boost the level of safety in the maintenance and management of our infrastructure. In this context, it should be noted that accreditation is required to work on TenneT's high-voltage grid.

Major electricity supply disruptions have a potentially devastating effect on the entire community. During the year under review, the crisis organisation scenario for energy supply and community emergencies was tested and evaluated. Moreover, dry runs are organised at regular intervals to test the efficacy of the organisational and communication arrangements for emergency situations.

Cinema
Bring together image, sound and light and what do you get? A motion picture.

Financial Results

Results

A profit of EUR 63.6 million was recorded for the year 2001. The Board of Management proposes that this sum should be transferred to the general reserve.

Turnover

Turnover for 2001 totalled EUR 354 million, of which EUR 118.9 million was accounted for by connections to the transmission grid and the provision of transmission services. A further EUR 157.6 million came from the provision of system services and EUR 61.5 million from imbalance offsets. (All figures include turnover achieved at subsidiary company level.)

Regulated Turnover

Regulated turnover for 2001 was based on the DTe-defined tariffs for the connection, transmission and system service components for that year, in accordance with the tariff structure laid down in the Netherlands Tariff Code and supplementary DTe rulings.

The DTe-defined tariff components for 2001 were as follows (x EUR):

Connection service	*Tariff carrier*	*Tariff for 2001*	*Tariff for 2000*
• Annual tariff for standard connections featuring met EHS [1]	Connection	5,672.25	5,672.25
Transmission service			
• Transmission independent tariff	junction	12,478.96	13,613.41
• Transmission dependent tariff for grid administrators	kW maximum per annum	5.13	4.90
• Transmission dependent tariff for users	kW under contract	2.57	2.45
• Transmission dependent tariff for users	kW maximum per month	0.26	0.25
• Transmission dependent tariff for users (600 hours max.)	kW under contract	1.28	2.45
• Transmission dependent tariff for users (600 hours max.)	kW maximum per week	0.09	0.25
• National uniform tariff for generating companies	kWh	0.00123	0.00088
System service			
• System service tariff	kWh	0.0017	0.0019

[1] *EHS: In accordance with the Tariff code, EHS (Extra High Voltage) means the grids operated on 220kV and 380kV*

Marcel, substation and line manager
'Providing for the link between 380 and 220kV and the power point.'

National Uniform Transmission Tariff for Generating Companies The joint grid administrators have made TenneT bv responsible for the calculation and set-off of the national uniform transmission tariff for generating companies (Dutch acronym: "LUP"), in accordance with Section 3.5.6 of the Netherlands Tariff Code.

Programme Responsibility The Programme Responsibility (PR) System stipulates that an "imbalance price" should be charged to companies that exercise programme responsibility under the Netherlands System Code whenever they depart from the programme they originally submitted. This charge is payable to the national high-voltage grid administrator, since the latter has to obtain energy and capacity to restore the energy balance. The System Code stipulates that the national high-voltage grid administrator should include any imbalance set-off surplus in the system service tariff to be applied during a subsequent year.

The imbalance price is made up of an energy component and an incentive component. The former is calculated on the basis of the price linked to the bid price ladder for energy and capacity. A total of EUR 100 million was charged in respect of imbalances in 2001, with the cost of sourcing energy totalling EUR 61.5 million, resulting in an imbalance set-off surplus of EUR 38.5 million. This amount will be offset in the system service rates for subsequent years, as stipulated in the System Code.

Revenue from Allocation of Capacity on Cross-Border Interconnections TSO Auction bv auctions the cross-border transmission capacity offered by grid administrators and TSOs. To this end, it organises annual, monthly and daily auctions. In 2001, the following capacity volumes were made available and auctioned off, resulting in the following revenue:

	Capacity available	*Capacity auctioned off*	*x EUR million*
Annual auction	40.5TWh [1]	35.7TWh	62.8
Monthly auction	10.5TWh	10.3TWh	34.6
Daily auction	15.8TWh	15.8TWh	25.8
Total			123.2

[1]) *The maximum capacity available is auctioned off on an hourly basis, per MW. The table shows the overall energy volume having been imported/exported.*

Food industry
Daily refrigeration – so cool.

TenneT is entitled to half the proceeds from the auctions, to be spent on DTe-designated ventures, which in 2001 comprised the installation of transverse variable transformers and TenneT's participation in APX Spotmarket bv.

Section 13 of the Netherlands Electricity Generating Sector (Transitional) Act stipulates that TenneT should receive compensation from NEA for making available transmission capacity on the cross-border interconnections, with the ensuing proceeds, which for 2001 totalled EUR 29.1 million, to be offset against future connection, transmission and service system tariffs.

Operating Expenditure

Operating expenditure totalled EUR 275.9 million for 2001. The breakdown was as follows:

	x EUR million
Energy and capacity procurement costs	171.4
Transmission grid and system costs	23.4
Personnel costs	16.7
Amortisation of intangible fixed assets	4.1
Depreciation of tangible fixed assets	39.3
General administration costs	21.0
Operating expenditure	275.9

Investment and Finance

Fixed assets with a value of EUR 17.9 million were acquired by TenneT bv in 2001, against EUR 9.7 million in divestments. The acquisition of APX Spotmarket bv involved the acquisition of intangible fixed assets worth a further EUR 20.4 million and tangible fixed assets worth EUR 2.0 million.

A sum of EUR 243.1 million was released from the operating cash flow, in addition to which a BNG (Netherlands Municipalities Bank) bridging loan of EUR 170 million was made available to cover the funding requirement and prepayments swelled to EUR 84.1 million. Such resources as were available were used to redeem EUR 354 million of NEA loans, to invest EUR 15.3 million in tangible fixed assets, and to invest EUR 20.8 million in intangible fixed assets and financial fixed assets.

Martin, maintenance specialist

'Maintenance to help ensure a secure and stable transmission grid.'

TenneT's treasury policy underwent further fine-tuning in 2001, to bring it into line with the changing financial landscape. Preparations are currently underway aimed at converting the bridging loan into a funding arrangement. This is being done partly because TenneT expects to make a number of major investments in the coming years, including the construction of a 380kV link in North and South Holland, the beefing up of regional grid links to the 380kV grid, the construction of a new 380kV substation in Borssele, and the possible realisation of an interconnector cable between the United Kingdom and the Netherlands.

Financial Statements

The financial statements consist of the following:

- Consolidated balance sheet as at 31 December 2001 after profit appropriation
- Consolidated profit and loss account for the year 2001
- Consolidated cash flow statement for the year 2001
- General notes
- Notes to the consolidated balance sheet as at 31 December 2001
- Notes to the consolidated profit and loss account for the year 2001
- Company balance sheet as at 31 December 2001 after profit appropriation
- Company profit and loss account for the year 2001
- General notes
- Notes to the company balance sheet as at 31 December 2001 and the company profit and loss account for the year 2001

Appendix to the financial statements:

- Other information

Consolidated balance sheet as at 31 December 2001 after profit appropriation

(x EUR 1,000)

Assets			**31 December 2001**		31 December 2000
Fixed assets					
Intangible fixed assets	*(1)*	High-voltage lines		**16,305**	–
Tangible fixed assets	*(2)*	High-voltage lines	**241,124**		264,411
		High-voltage stations	**203,485**		209,407
		Office buildings	**10,972**		10,467
		Other tangible fixed assets	**9,152**		9,543
		Assets under construction	**17,320**		12,152
				482,053	505,980
Financial assets	*(3)*	Participating interests	**412**		–
				412	–
Current assets					
Debtors		Trade debtors	**18,289**		7,499
		Taxes	**1,054**		–
	(4)	Prepayments and accrued income	**124,267**		59,198
				143,610	66,697
Cash and deposits	*(5)*			**233,114**	120,510
				875,494	693,187

Liabilities

			31 December 2001		31 December 2000
Group equity	*(6)*			**179,206**	115,592
Provisions	*(7)*	Personnel provision	**6,376**		11,983
		Provision for general overhauls	**13,248**		9,876
				19,264	21,859
Long-term liabilities	*(8)*	Subordinated loan	**–**		166,538
		Other loans	**–**		154,285
		Deferred income	**91,423**		7,281
				91,423	328,104
Current liabilities	*(9)*	Deferred income	**44,829**		2,857
		Long-term liabilities falling due within 1 year	**–**		33,126
		Debts to financial institutions	**175,403**		–
		Creditors	**12,624**		5,376
		Taxes and social charges	**–**		3,239
		Accruals	**352,385**		183,034
				585,241	227,632
				875,494	693,187

See notes on pages 10 through 14.

Consolidated profit and loss account for the year 2001

(x EUR 1,000)

				2001		2000
Turnover	*(11)*			**354,459**		273,966
Operating expenses	*(12)*	Energy and power expenses	**171,403**		118,553	
		Transmission grid and operational systems expenses	**23,443**		27,040	
		Personnel expenses	**16,703**		17,529	
		Depreciation of intangible fixed assets	**4,076**		–	
		Depreciation of tangible fixed assets	**39,248**		38,534	
		General administrative expenses	**21,015**		22,505	
				275,888		224,161
Operating profit				**78,571**		49,805
Financial income and expense	*(13)*	Interest received	**7,176**		2,468	
		Interest paid	**22,062**		23,238	
		Share in result of participating interests	**-/- 53**		–	
				14,939		20,770
Profit before tax				**63,632**		29,035
Taxes				**18**		–
Profit after tax				**63,614**		29,035

See notes on pages 15 through 16.

Consolidated cash flow statement for the year 2001

(x EUR 1,000)

		2001		2000
Cash flow from operating activities				
	Profit	**63,614**		29,035
	Depreciation of intangible fixed assets	**4,076**		–
	Depreciation of tangible fixed assets	**39,248**		38,534
	Provisions	**-/- 2,235**		12,469
	Working capital	**96,447**		102,970
			201,150	183,008
Cash flow from investing activities				
	Intangible fixed assets	**-/- 20,381**		–
	Tangible fixed assets	**-/- 15,321**		-/- 21,609
	Financial assets	**-/- 412**		–
			-/- 36,114	-/- 21,609
Cash flow from financing activities				
	Bridge facility (new loan)	**175,403**		–
	Repayment of long-term liabilities	**-/- 353,949**		-/- 37,218
	Increase in deferred income	**126,114**		10,138
	Dividend paid	**–**		-/- 29,035
			-/- 52,432	-/- 56,115
Increase in cash and deposits			**112,604**	105,284

General notes

Business activities

TenneT TSO
TenneT has been appointed on the strength of the Netherlands Electricity Act 1998 as the independent Transmission System Operator (or TSO for short) and administrator of the national high-voltage grid, with the responsibility for safeguarding the stability and reliability of the Dutch power system. This appointment was duly formalised in the Ministerial Decree dated 7 December 2001 in the context of which the Ministry of Economic Affairs appointed TenneT bv for a ten-year period as the Dutch TSO and administrator.

The Company's object consists in the providing for transmission and system services subject to conditions that are transparent and non-discriminatory. To this end it operates the Dutch transmission systems intended for electricity transmission as well as the cross-border transmission systems operating at voltage levels of 500V and over. The company also provides systems services, facilitates the market, aimed at safeguarding the stability and reliability of the Dutch power supply infrastructure as such and at ensuring that the power balance remains intact, and conducts related activities.

The full complement of shares in TenneT bv rested with B.V. Nederlands Elektriciteit Administratiekantoor (NEA) as at 31 December 2000, and on 25 October 2001 were transferred to the State of the Netherlands with retroactive effect as at 1 January 2001.

TenneT bv incorporated several subsidiary companies during the year under review as well as acquitting several participating interests.

TSO Auction bv
TSO Auction bv's object consists in the provision, subject to non-discriminatory and transparent conditions, of the auctioning off of available cross-border electricity transfer capacity made available by grid administrators and TSOs. The company carries out its auctioning operations on the basis of the collaborative agreement having been concluded to this end between TenneT bv and the following foreign TSOs in neighbouring countries: Elia SA (Belgium) and E.ON Netz GmbH and RWE Net AG (Germany).

Amsterdam Power Exchange Spotmarket bv
APX Spotmarket bv's object consists in the facilitation of the energy trade by administering an electronic trading platform, thus enabling power generating companies and traders to exchange the electricity demand and supply in the Netherlands on a daily basis.

Elined bv
Elined bv's object consists in the exploitation of locations where telecommunication equipment can be installed, towers (suitable for microwaves) and telecommunication infrastructure in the context of utilising such portion of TenneT bv's telecommunication potential as is not directly or indirectly associated with the remit of the national high voltage grid administrator.

Groencertificatenbeheer bv
Groencertificatenbeheer bv's object consists in the facilitation of the trade in renewably generated electricity ("green power") through the issue and administration of renewably generated electricity certificates ("Green Certificates"). These Green Certificates are created for generators on their submission of proof of their having renewably generated, and are available for negotiation by traders. The Green Certificates are certificates of authenticity on the basis of which tax authorities can grant the supplier a tax exemption from Regulatory Energy Tax ("ecotax"). Groencertificatenbeheer has had a computerised certificate system developed enabling the generation of renewable electricity to be traced right up to the point where it is consumed.

NLink International bv
NLink bv's object consists in the development, construction, lease (letting) and exploitation of interconnector cables.

On 7 August 2001 a joint venture was incorporated, together with National Grid International Ltd. (a subsidiary of the British TSO, National Grid Company), under the name BritNed Development Ltd., half the share capital of which is held by NLink and which has been charged with performing a study into the feasibility of constructing an Anglo-Dutch interconnector cable.

Consolidation principles

TenneT bv's financials and those of the businesses in which it has a controlling say are involved in the consolidation, the relevant participating interests being included in full whereas 50-50 joint ventures are proportionately consolidated.

The following companies are included in the consolidation:

Amsterdam Power Exchange Spotmarket bv, Amsterdam	(100%)
TSO Auction bv, Arnhem	(100%)
Groencertificatenbeheer bv, Arnhem	(100%)
Elined bv, Arnhem	(100%)
NLink International bv, Arnhem	(100%)
- BritNed Development Ltd, Birmingham U.K.	(50%)

Valuation principles

General

The financial statements have been prepared in accordance with accounting rules that are generally accepted in the Netherlands, with assets and liabilities stated at face value unless stipulated otherwise.

Comparison with previous financial year

Unless stipulated otherwise, the principles of valuation and result determination have remained unchanged.

System change

The revised annual reporting guidelines have prompted the abolition of the provision for transmission and system service as at 1 January 2001, with the relevant amount (EUR 23.4 million) having been credited to shareholders' equity by way of appropriated reserve. The relevant figures for 2000 have been restated accordingly.

The appropriated reserve covers the specific risks relating to the management of the transmission system as well as the risks associated with the supply of grid and systems services and ensuring the power balance.

Foreign currencies

Balance sheet items relating to assets and liabilities denominated in foreign currencies have been translated at the exchange rate prevailing at the balance sheet date. Transactions denominated in foreign currencies having taken place during the period under review have been restated at the exchange rates realised.

Intangible fixed assets

Capitalised goodwill is subjected to straight-line depreciation over the asset's estimated useful life, to a maximum of five years. Allowance is made for lasting write-downs expected as at the balance sheet date.

Tangible fixed assets

Tangible fixed assets are valuated at the all-in acquisition price less depreciation on a straight-line basis according to the estimated useful life of the assets as indicated below:

High-voltage lines	30
High-voltage stations	20
Office buildings	25
Other tangible fixed assets	
• Telecommunications network	10
• Operational systems	3 / 5
• Other assets	5 / 10

Land, including its preparation for development, is not depreciated.

Financial assets

Majority participations and other participating interests in which the Company has significant say are stated at net asset value, calculated in accordance with such principles as apply to these financial statements. Participating interests in respect of which insufficient data are available to enable restatement in line with the said principles are accounted for on the basis of their own financial statements.

Participating interests in which the Company has no significant control are stated at acquisition price or lower value.

Receivables

Receivables are stated at face value less such bad debt provision as is deemed appropriate.

Provisions

The provisions included under this heading have been formed for commitments and risks, existing at the balance sheet date, relating to the company's operations.

The formation of the personnel provision was required to cover the costs of adapting the organisation to its new tasks as well as other future expenses the commitments in respect of which first arose prior to the balance sheet date. This provision is stated at present value.

The provision for general overhauls covers the fluctuation in the cost of general overhauls of buildings, the high-voltage grid and the high-voltage stations, owned either by TenneT or third parties.

Long-term and current liabilities

Prepayments included as part of liabilities are augmented by interest in so far as they are subject to regulation.

Principles of determination of result

Turnover

The 2001 turnover was based on the tariffs governing the following components: connection services, transmission services and system services, as set by DTe, the Dutch Office for Energy Regulation, in respect of the year under review, in accordance with the tariff structure as laid down in the Tariff Code, and additionally on the basis of supplementary DTe rulings.

Under the terms of the Programme Responsibility, TenneT has charged a surcharge to companies under the Programme Responsibility in relation to deviations from their planned physical transactions on the basis of the technical conditions set out in the System Code. The national grid operator has to source energy and capacity in the context of ensuring the power balance. The System Code stipulates that the national grid operator and Transmission System Operator should include the balance remaining following imbalance offset in the system service tariff to be charged during a subsequent year.

Operating expenses

Operating expenses are calculated on the basis of historical cost, and are attributed to the financial year to which they relate.

Depreciation of tangible fixed assets

Tangible fixed assets are depreciated according to the straight-line method over their useful technical and economic lives.

Taxation

The corporate tax rate applied to the Company's operations as national grid operator and Transmission System Operator has been nil for the period from 1998 to 2001 inclusive, with tax on the profits being otherwise calculated on the basis of the pre-tax profit as per the profit and loss account.

Notes to the consolidated balance sheet as at 31 December 2001

(x EUR 1,000)

Note [1] Intangible fixed assets

The book value of capitalised goodwill can be specified as follows:

	2001
Book value as at 1 January	**–**
Additions	**20,381**
Depreciation	**-/- 4,076**
Book value as at 31 December	**16,305**

Note [2] Tangible fixed assets

As far as owned by the company, item high-voltages lines includes the 220kV and 380kV lines. The company does not own the land under the transmission pylons; the company pays for the right to use this land.

The line high-voltage stations includes the 220kV and 380kV high-voltage stations including the land.

The line office buildings includes the office buildings and land.

The line other tangible fixed assets includes the telecommunications network as well as the process automation facilities and office automation.

The book value of the tangible fixed assets currently in use can be specified as follows:

	High-voltage lines	High-voltage stations	Office buildings	Other assets	**Total 2001**	Total 2000
Book value as at 1 January	264,411	209,407	10,467	9,543	**493,828**	516,097
Additions	3,170	11,771	1,104	1,882	**17,927**	16,265
Acquisition participations	–	–	239	1,720	**1,959**	–
Disposals	9,486	216	–	31	**9,733**	9
Depreciation	16,971	17,477	838	3,962	**39,248**	38,525
Book value as at 31 December	241,124	203,485	10,972	9,152	**464,733**	493,828

The accumulated acquisition value and the accumulated depreciation of the mentioned tangible fixed assets as at 31 December 2001 are as follows:

	High-voltage lines	High-voltage stations	Office buildings	Other assets	**Total 2001**	Total 2000
Acquisition value	469,092	446,372	22,054	37,742	**975,260**	971,032
Depreciation	227,968	242,887	11,082	28,590	**510,527**	477,204
Book value as at 31 December	241,124	203,485	10,972	9,152	**464,733**	493,828

In addition to the grids of which it is the beneficial owner, TenneT also administers third-party 220 kV and higher grids, the book value of which calculated on application of TenneT's valuation principles amounted to EUR 41.9 million as at the balance sheet date, DTe having fixed the regulatory value of the full complement of TenneT-administered grids at EUR 806.9 million as at 1 January 2000.

The legal title relating to the assets of the national connecting grid which were contributed to TenneT in 1998 was contributed to Saranne bv in 2001, the full complement of shares in which were held by the State of the Netherlands as at the balance sheet date.

The movements in assets under construction are as follows:

	High-voltage lines	High-voltage stations	Office buildings	Other assets	**Total 2001**	Total 2000
Book value as at 1 January	2,838	8,994	–	320	**12,152**	6,808
Capitalized	502	19,389	1,104	2,100	**23,095**	21,609
Put into operation	3,170	11,771	1,104	1,882	**17,927**	16,265
Book value as at 31 December	170	16,612	–	538	**17,320**	12,152

Note [3] Financial assets

As at balance sheet date TenneT bv has an participation interest in La Société Holding des Gestionnaires de Réseau de Transport d'Electricité.

	2001	2000
Book value as at 31 December	–	–
Incorporation of participating interest	**465**	–
Share in result of participating interest	**-/- 53**	–
Balance as at 31 December	**412**	–

Note [4] Prepayments and accrued income

Prepayments and accrued income can be specified down as follows:

	2001	2000
Auction proceeds awaiting invoicing to participants	**90,864**	57,611
Imbalance offset with companies under the Programme Responsibility	**15,359**	–
Asset transfer	**9,600**	–
Miscellaneous	**8,444**	1,587
Total	**124,267**	59,198

Note [5] Cash and deposits

Cash and deposits can be specified as follows:

	2001	2000
Securities	**206,034**	61,081
Deposits and call monies outstanding	**4,500**	58,848
Petty cash and current account	**22,580**	581
Total	**233,114**	120,510

The securities having been lodged by market players are not at the Company's discretionary disposal.

Note [6] Group equity

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

Note [7] Provisions

Personnel provisions
The personnel provision was formed to cover the costs as a consequence of adapting the organisation to its new tasks as well as other future expenses, the commitments in respect of which arose prior to the balance sheet date.

	2001	2000
Balance as at 1 January	**11,983**	10,212
Addition	**784**	3,700
Withdrawal	**-/- 6,391**	-/- 1,929
Total	**6,376**	11,983

EUR 0,4 million interest is included in the addition.

Provision for general overhauls
The provision for general overhauls was formed to cover fluctuations in the cost of painting and maintenance.

	2001	2000
Balance as at 1 January	**9,876**	3,524
Addition	**6,500**	9,076
Withdrawal	**-/- 3,128**	-/- 2,724
Total	**13,248**	9,876

Approximately EUR 9,4 million of the total amount of provisions has a short-term character.

Note [8] Long-term liabilities

Subordinated loans and other loans
B.V. NEA's long-term loans were prematurely redeemed on 25 October 2001, when the shares in TenneT bv were transferred to the State of the Netherlands.

Deferred income
The item Deferred income can be specified as follows:

	To be offset as part of tariffs in subsequent years	Proceeds from cross-border capacity having been auctioned off	Total
Balance as at 1 January 2001	7,281	–	7,281
Additions	26,264	61,637	87,901
Interest	1,425	1,022	2,447
Withdrawals	–	-/- 6,206	-/- 6,206
Balance as at 31 December 2001	34,970	56,453	91,423

The auction proceeds are spent on DTe-designated purposes, which in 2001 comprised the installation of transverse variable transformers and TenneT's participation in APX Spotmarket bv.

Note [9] Current liabilities

Deferred income
The item Deferred income predominantly relates to amounts to be offset as part of the 2002 tariffs. Movements were as follows:

	To be offset as part of tariffs	Imbalance offset balance	NEA payment in respect of cross-border capacity	Total
Balance as at 1 January 2001	2,857	–	–	2,857
Additions	-/- 19,880	38,511	29,114	47,745
Interest	–	860	349	1,209
Withdrawals	-/- 2,857	-/- 4,125	–	-/- 6,982
Balance as at 31 December 2001	-/- 19,880	35,246	29,463	44,829

Section 13 of the Netherlands Electricity Generation Sector (Transitional) Act stipulates that TenneT should receive compensation from NEA for the availability of transmission capacity on the cross-border interconnections. The ensuing proceeds are required to be offset as part of future connection, transmission and system service tariffs.

Debts to financial institutions
A bridging loan has been secured with BNG, Bank Nederlandse Gemeenten, in 2001 in a refinancing context. Preparations are currently under way aimed at converting this bridging loan into a definitive financial arrangement.

Accruals
Accruals can be specified as follows:

	2001	2000
Securities	**206,034**	61,081
Auction proceeds to be paid out to TSOs	**106,830**	67,961
Energy and capacity costs payable	**12,712**	–
Dividend for payment	**–**	29,035
Miscellaneous	**26,809**	24,957
Total	**352,385**	183,034

Note [10] Off-balance sheet rights and commitments

Programme Responsibility companies issued bank guarantees for an amount of EUR 17.5 million for the benefit of TenneT, in accordance with the responsibility allocated to them under the Programme responsibility.

As at 31 December 2001 commitments in the sum of EUR 29.4 million had been assumed in respect to tangible fixed assets under construction.

The annual payment to third-party owners of the transmission systems amounts to approximately EUR 10 million.

TenneT has issued a guarantee of up to EUR 1 million by way of security for NLink's compliance with the latter's commitments under the BritNed Development Ltd. participation.

The State of the Netherlands and TenneT bv agreed on 25 October 2001 that TenneT should be entitled to acquire the Saranne bv shares at net asset value or, alternatively, acquire legal title to the national high voltage grid and the corresponding assets.

Notes to the consolidated profit and loss account for the year 2001

(x EUR 1 ,000)

Note [11] Turnover

Turnover comprises payments received for the supply of connection services, transmission services and system services in the Netherlands and energy costs charged in the context of ensuring the power balance, as well as including amounts charged for the lease (letting) of telecommunication infrastructure.

	2001		2000	
Connection and transmission services	**118 ,921**		103 ,825	
System services	**157 ,602**		167 ,874	
Ensuring the power balance	**61 ,496**		737	
		338 ,019		272 ,436
Other		**16 ,440**		1 ,530
Total		**354 ,459**		273 ,966

Turnover in respect of connection and transmission services is inclusive of the support services supplied to regional grid administrators for the benefit of resolving transmission constraints and idle power transactions.

Other income comprises turnover realised by subsidiary companies, inter alia, and includes turnover in respect of the lease (letting) of telecommunication infrastructure, which in the 2000 financial statements had been deducted from operating expenditure. The comparative figures for 2000 have been restated to reflect this.

Note [12] Operating expenses

Cost of energy and power

The cost of energy and power can be specified as follows:

	2001	2000
Connection and transmission services	**23 ,981**	12 ,933
System services	**85 ,926**	104 ,883
Ensuring the power balance	**61 ,496**	737
Total	**171 ,403**	118 ,553

Transmission grid and operational system expenses
The transmission grid and systems expenses include both expenses relating to Dutch transmission grids at a voltage level of 220 kV or over as well as the maintenance expenses relating to the operational systems.

	2001	2000
Operational systems	**1,845**	1,459
Transmission grid maintenance expenses	**5,031**	6,096
Payments for the use of transmission systems owned by third-parties	**10,067**	10,409
Addition to the provision for general overhauls	**6,500**	9,076
Total	**23,443**	27,040

Personnel expenses
The following is a break down of the personnel expenses:

	2001	2000
Salaries	**13,583**	12,377
Social charges	**1,236**	1,144
Pension charges	**1,551**	1,483
Other personnel expenses	**777**	4,118
Charged to group companies	**-/- 444**	-/- 1,593
Total	**16,703**	17,529

In 2001 the average manning was 250 employees (2000: 222).
The Supervisory Board remuneration amounted to EUR 76,296 (2000: EUR 74,873).
In accordance with the Articles of Association one director is entitled to a remuneration. Pursuant to the provisions of current legislation, this amount has not been disclosed.

General administrative expenses
Expenses relating to business accommodation, office automation, temporary staff, staff recruitment, research, consultancy services, office expenses and travel and accommodation expenses are included in the line item general administrative expenses.
The change in system has resulted in the annual release to the provision for transmission and system services (EUR 4.5 million) being eliminated from the line item General administrative expenses in 2001.

Note [13] Financial income and expense

Interest received
Interest received on (short-term deposits) is included under the line interest received. An amount of approximately EUR 0.5 million (2000: EUR 0.5 million) has been booked to the assets under construction account.

Interest paid
This item relates to the interest paid on loans granted by B.V. NEA and the BNG bridging loan as well as additions to provisions and prepayments received.

Company balance sheet as at 31 december 2001 after profit appropriation

(x EUR 1 ,000)

Assets		**31 December 2001**		31 December 2000	
Fixed assets					
Tangible fixed assets	High-voltage lines	**241 ,124**		264 ,411	
	High-voltage stations	**203 ,485**		209 ,407	
	Office buildings	**10 ,860**		10 ,467	
	Other tangible fixed assets	**8 ,426**		9 ,543	
	Assets under construction	**17 ,314**		12 ,152	
			481 ,209		505 ,980
Financial assets (14)	Participating interests in associated companies	**24 ,110**		18	
	Other participating interests	**412**		–	
			24 ,522		18
Current assets					
Debtors	Trade debtors	**16 ,342**		7 ,499	
	Receivables from group companies	**3 ,626**		–	
	Prepayments and accrued income	**30 ,587**		1 ,572	
			50 ,555		9 ,071
Cash and deposits			**6 ,182**		49 ,293
			562 ,468		564 ,362

Liabilities

		31 December 2001		31 December 2000	
Shareholders' equity (15)	Share capital	**23**		23	
	Share premium reserve	**90 ,733**		90 ,733	
	Appropriated reserve	**23 ,410**		23 ,410	
	General reserve	**65 ,040**		1 ,426	
			179 ,206		115 ,592
Provisions	Personnel provision	**6 ,376**		11 ,983	
	Provision for general overhauls	**13 ,248**		9 ,876	
			19 ,264		21 ,859
Long-term liabilities	Subordinated loan	**–**		166 ,538	
	Other loans	**–**		154 ,285	
	Deferred income	**91 ,423**		7 ,281	
			91 ,423		328 ,104
Current liabilities	Deferred income	**44 ,781**		2 ,857	
	Long-term liabilities falling due within 1 year	**–**		33 ,126	
	Debts to financial institutions	**175 ,403**		–	
	Creditors	**8 ,083**		5 ,358	
	Taxes and social charges	**4 ,813**		1 ,830	
	Accruals	**39 ,135**		55 ,636	
			272 ,215		98 ,807
			562 ,468		564 ,362

See notes on pages 21 through 22.

Company profit and loss account for the year 2001

(x EUR 1 ,000)

			2001		2000
Turnover			**349 ,644**		273 ,966
Operating expenses	Energy and power expenses	**171 ,403**		118 ,553	
	Transmission grid and operational systems expenses	**22 ,762**		27 ,040	
	Personnel expenses	**15 ,118**		17 ,529	
	Depreciation of tangible fixed assets	**37 ,783**		38 ,534	
	General administrative expenses	**22 ,449**		22 ,505	
			269 ,515		224 ,161
Operating profit			**80 ,129**		49 ,805
Financial income and expense	Interest received	**4 ,425**		2 ,468	
	Interest paid	**20 ,925**		23 ,238	
	Share in result of participating interests	**-/- 15**		–	
			16 ,515		20 ,770
Profit before tax			**63 ,614**		29 ,035
Taxes			**–**		–
Profit after tax			**63 ,614**		29 ,035

General notes

Principles governing the valuation of assets and liabilities and the determination of the result

The principles of valuation and determination of result for the company's annual accounts and the consolidated annual accounts are the same. Consolidated companies are carried at net asset value.

For the principles of valuation of assets and liabilities and for the determination of result reference is made to the notes to the consolidated balance sheet and profit and loss account on page 7 through 9.

Notes to the company balance sheet as at 31 December 2001 and the company profit and loss account for the year 2001

(x EUR 1 ,000)

Note [14] Financial fixed assets

Below please find a summary of TenneT bv's participating interests:

Participating interests in group companies		*Shareholding*
Amsterdam Power Exchange Spotmarket bv, Amsterdam		(100%)
TSO Auction bv, Arnhem		(100%)
Groencertificatenbeheer bv, Arnhem		(100%)
Elined bv, Arnhem		(100%)
NLink International bv, Arnhem		(100%)
- BritNed Development Ltd, Birmingham U.K.	(50%)	
Other participating interests		
La Société Holding des Gestionnaires de Réseau de Transport d'Electricité, Paris		(24,5%)
- Powernext S.A.	(17%)	

Movements in the participating interests' book value were as follows:

	Participating interests in group companies	Other participating interests	Total
Book value as at 1 January 2001	18	–	18
Investments	24 ,000	465	24 ,465
Capital contribution	54	–	54
Share in result of participating interests	38	-/- 53	-/- 15
Book value as at 31 December 2001	24 ,110	412	24 ,522

Note [15] Shareholders' equity

Authorised share capital

The Company's authorised share capital as at the balance sheet date amounted to EUR 90,756 divided into 200 shares each having a nominal value of approximately EUR 454, of which 50 had been subscribed and paid up.

Share premium reserve

In the year under review there were no changes in the share premium reserve.

Appropriated reserve

The Appropriated reserve is the result of the abolition of the provision for transmission and system services. No movements took place in this reserve during the year under review.

General reserve
The profit for the year under review has been credited to the General reserve in its entirety.

	2001	2000
Balance as at 1 January	**1 ,426**	1 ,426
Credited in accordance with proposed profit appropriation	**63 ,614**	–
Balance as at 31 December	**65 ,040**	1 ,426

Other information

Profit appropriation

Article 38(3) of the Company's Articles of Association provides for the profit appropriation. 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.

Allowance has been made in the financial statements for 2001 for the resolution by the General Meeting of Shareholders to the effect that the net profit for 2001 should be credited to the General reserve in its entirety.

Post balance sheet events

Share capital

The Company's share capital is to increased in stages so that the authorised share capital will amount to EUR 300 million and the paid-in capital, to EUR 100 million, the said increase to be effected from the share premium and general reserves.

Auditor's report

Introduction

We have audited the 2001 financial statements of TenneT Transmission System Operator bv in Arnhem, the Netherlands. The 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 financial statement presentation. 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 31 December 2001 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, Book 2 of the Netherlands Civil Code.

Arnhem, 20 March 2002
PricewaterhouseCoopers NV

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