

Annual report  
2002



**Landsvirkjun**  
The National Power Company



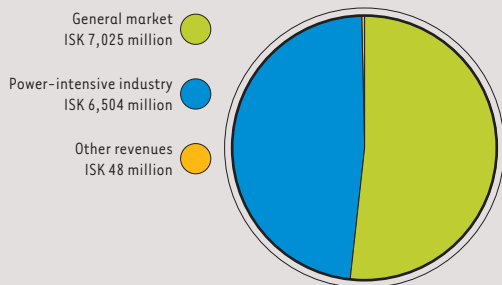
Nesstofa by Seltjörn pond, near Reykjavík, built of stone in 1761-1763. The residence of the first Surgeon General of Iceland and also housed the first authorized pharmacist in Iceland. The architect of the house was the Danish court stonemason, Jacob Fortling. Acquired by the National Museum in 1979.



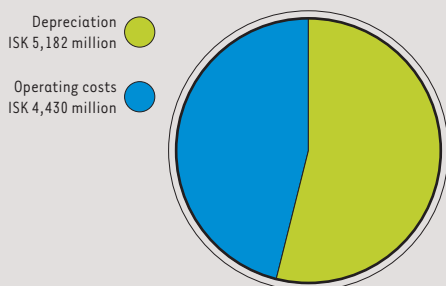
Farmhouse at Reynistadur in Skagafjörður, north Iceland. Thóra Björnsdóttir, the widow of Bishop Halldór Brynjólfsson, had it built in 1758. The house features wooden posts used in a definite Icelandic style. Owned by the National Museum since 1999.



### Revenues 2002 – ISK 15,341 m.

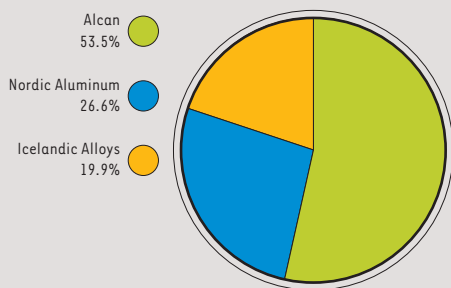


### Expenses\* 2002 – ISK 9,612 m.



\* Net interest expenses were negative by ISK 1,764 million.

### Breakdown of sales to power-intensive industries (GWh)



### Landsvirkjun's credit rating on international markets

	Moody's	Standard & Poor's
Short term	P1	A1+
Long term	Aaa	A+

### Landsvirkjun's mission

To provide our customers with the best energy solutions to create the basis for a modern quality of life.

### Highlights of the annual accounts (ISK)

	2002	2001
Net profit (loss)	5,729 million	(1,839 million)
Cash generated by operating activities	6,432 million	5,542 million
Liabilities	81.3 billion	94.4 billion
Owners' equity	40.0 billion	37.7 billion
Equity ratio	33.0%	28.5%

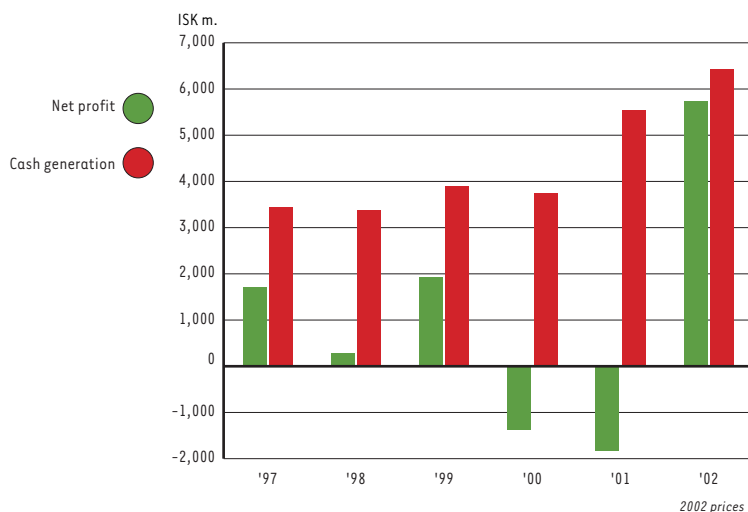
### Electricity production, purchases and sales (GWh)

	2002	2001
Total production	7,173	6,838
Electricity purchases	633	661
Sales to general market	2,263	2,242
Sales to power-intensive industries	5,222	4,956
Sales increase	4%	3.5%

### Electricity prices to the general market 2002

	Average price	Change from 2001	
		Normal price	In real terms
Primary electricity	3.56 ISK/kWh	4.0%	-2.5%
Secondary electricity	0.60 ISK/kWh	2.4%	-4.0%
Average price	3.10 ISK/kWh	2.5%	-3.9%

### Cash generation and net profit



# Overview

On 22 March it became clear that Norsk Hydro was not confident of upholding schedules on the building of an aluminium plant at Reydarfjörður. A short time later, exploratory talks commenced between Landsvirkjun and Alcoa.



*Restaurant Ingólfur at Eyrarbakki, south Iceland*

During summer there was an exhibition at Hrauneyjafoss Hydro Station of the proposals for outdoor works of art at the new Vatnsfell Hydro Station. It was decided that the artwork "Tíðni" (Frequency) by Finnboði Pétursson would be produced and set up, along with "Módir Jörd er að tæknivæðast" (Technological Mother Earth) by the Icelandic Love Corporation.

The summer was filled with events at the Landsvirkjun Power stations, enlivened by varied happenings such as concerts, as well as assorted exhibitions. The exhibition "What of the Gods?" opened at the Laxá Station on 22 June, showing statues of the Nordic gods by sculptor Hallsteinn Sigurdsson along with information on the Nordic Mythologies. An exhibition on man and nature opened at the Ljósifoss Station on 15 June.

In August, a new energy control system from Alstom in France was put into operation at the Dispatch Centre of

Landsvirkjun, replacing a system from 1989. Installation took over a year.

On 13 August, the State Planning Agency ruled on environmental impact assessment of the Nordlingaalda Diver-

sion, accepting its construction with a few conditions. This ruling was appealed to the Minister for the Environment. The acting Minister for the Environment ruled on the matter in February 2003. He allowed the reservoir, on the condition that it not extend into the protected area of Thjórsárver, and permitted the diversion of water from a sedimentation reservoir up river from the conservation area into the Kvíslaveita diversion.

On 1 September, Jóhann Már Maríusson retired from his position as Deputy Managing Director of Landsvirkjun, having worked for the company since 1970. Örn Marinósson, who has worked for Landsvirkjun since 1978, succeeded him. In addition, Stefán Pétursson assumed the position of Director of the Finance Division and CFO, to replace Örn Marinósson as of 1 September. Stefán Pétursson joined Landsvirkjun in 1992.

On 2 September, the Minister of Industry granted Landsvirkjun authorisation

to construct the Kárahnjúkar Power Project with up to 750 MW installed capacity.

On 31 October, Moody's raised Landsvirkjun's credit rating on its foreign long-term debt from Aa3 to Aaa.

Friday, 4 December, tenders were opened for constructing the dam and headrace tunnel at Kárahnjúkar. This is the largest tender carried out on account of power development in Iceland. The Italian firm Impregilo had the lowest offer for both projects, and in early 2003 the board of Landsvirkjun approved of entering into contracts with that company.

On 5 December, Kárahnjúkar Road and a new bridge over Jökulsá á Dal were opened at a festive ceremony.

At the beginning of 2003, the board of Landsvirkjun agreed to the contract with Alcoa for electrical energy sales to a 322,000-tonne aluminium smelter at Reydarfjörður.

## Number of employees in 2002

Permanent employees of Landsvirkjun performed 291 man-years in 2002, an increase of 5 man-years over the previous year. There were 88 man-years filled by temporary personnel, which signifies an increase of 2 man-years from the previous year.

A total of 280 young people were hired by Landsvirkjun in the summer of 2002, of whom 250 were in the traditional Icelandic summer work school and some 30 were university students in varied jobs related to their fields of study. This accounts for a large portion of the man-years among temporary personnel mentioned above.



## Management

*Managing Director* • **Mr. Fridrik Sophusson**

*Deputy Managing Director* • **Mr. Örn Marinósson**

*Executive Management:*

*Finance* • **Mr. Stefán Pétursson**

*Transmission* • **Mr. Thórdur Gudmundsson**

*Energy* • **Mr. Bjarni Bjarnason**

*Human Resources* • **Mrs. Sigthrudur Gudmundsdóttir**

*Information* • **Mr. Bergur Jónsson**

*Engineering and Construction* • **Mr. Agnar Olsen**



A new Board of Directors was appointed at Landsvirkjun's annual general meeting in April 2002, for a one-year term until April 4, 2003.

## Board of Directors

Appointed by the Minister of Industry and Commerce

**Mr. Jóhannes Geir Sigurgeirsson**, *Chairman*

**Mr. Árni Grétar Finnsson**, *Deputy Chairman*

**Mrs. Edda Rós Karlsdóttir**

Appointed by the City Council of Reykjavík

**Mr. Helgi Hjörvar**

**Mr. Pétur Jónsson**

**Mr. Vilhjálmur Th. Vilhjálmsson**



Appointed by the Town Council Akureyri

**Mr. Kristján Thór Júlíusson**

# Report of the Chairman and Managing Director

Favourable exchange-rate developments and successful financial and risk management during the year were the main reasons that Landsvirkjun showed a larger profit in 2002, just over ISK 5.7 billion, than ever before in the company's history. This was a substantial change compared to the two previous years, which were marked by a low rate of exchange for the Icelandic króna.

Despite fluctuations in the income statement, cash from operations has grown for many years, independent of net income. Cash generated by operations amounted to ISK 6.4 billion last year, an increase of almost ISK 900 million over the previous year. It is unrealistic to expect performance to remain at this year's level, when return on equity was 14.7%.

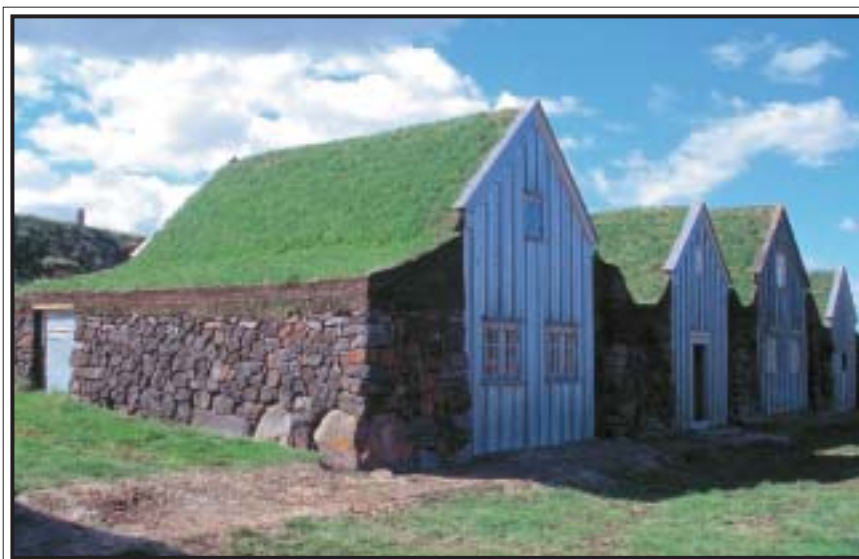
This year saw a new strategy of risk management introduced at Landsvirkjun producing good results. The risk management procedures, approved by the company's Board of Directors at the beginning of the year, are designed to guard Landsvirkjun against fluctuations in the exchange rates of foreign currencies, interest-rate changes, and variations in income related to aluminium prices. Risk management produced income of ISK 400 million for the company during the year, and the scope of this undertaking is expected to expand in coming times.

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Investments this year amounted to more than ISK 5 billion. The largest investments were in regard to the Vatnsfell power station, where construction was for the most part completed, and to preparations for Kárahnjúkar Power Plant. In the coming years, investments by Landsvirkjun will reach an historic

high, during the construction of the Kárahnjúkar plant. It should be kept in mind, however, that the proportions of this project are nonetheless comparable in size to several of the company's earlier projects, taking into account growth of the company and the national economy. In view of the investments ahead, it was

had proved more capital intensive than anticipated. A short time after this became apparent, the US aluminium company Alcoa expressed great interest in entering into these plans. After negotiations during the spring and into the summer, a joint memorandum was signed by Alcoa, Landsvirkjun, and the



Thverá in the Laxárdalur Valley. A timber house in a northern style, constructed by the owner, Jón Jóakimsson, cabinet-maker and farmer, in 1849-1870. Here the first Co-operative Society in Iceland was established in 1882. Acquired by the National Museum in 1968.

a propitious sign when Moody's Investor Service raised Landsvirkjun's credit rating for long-term foreign debts from Aa3 to Aaa at the end of October. With this rating, Landsvirkjun can expect to be very favourably received on the international financial market.

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Early in 2002, Norsk Hydro withdrew from negotiations on constructing an aluminium smelter in Reydarfjörður and contracting with Landsvirkjun on purchasing electricity for the smelter. The Norwegian company felt unable to take a decision on launching the project in September 2002, as the agreement between the two companies and the government had assumed. The reason was Norsk Hydro's previously having taken over a German company, which

Icelandic Government containing a timetable for concluding agreements in February 2003 on an aluminium smelter in Reydarfjörður that would use electricity from Kárahnjúkar. To put it briefly, this intention was subsequently realised. In accordance with those plans, efforts are now underway to build a 322,000-tonne aluminium smelter for Fjardaál, Alcoa's Icelandic subsidiary, which would begin production in April 2007, driven by electricity from Kárahnjúkar Power Station. These agreements represent a significant milestone in the use of environmentally friendly hydropower in Iceland and will increase Landsvirkjun's sales by 60%.

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In the late summer, the State Planning Agency ruled on the assessment of



environmental impact due to Nordlingaalda Diversion, and allowed a reservoir at altitudes of 575 or 578 meters above sea level, as this would concur with authorisations contained in the 1981 declaration of protection for the Thjórsárver wetlands that water could be raised onto protected areas if certain conditions were met. Landsvirkjun and Nordurál had already consented to negotiate agreements on power sales for expanding the aluminium smelter in stages to 260,000 tpa. The Planning Agency's ruling was appealed, and at the beginning of 2003, the acting Minister for the Environment authorised a reservoir at Nordlingaalda, though outside the boundaries of the Thjórsárver nature reserve, but also the diversion of water from a sedimentation reservoir north of the protected area into the Kvíslaveita diversion. Landsvirkjun is now working to reach agreements with Nordurál on a 90-thousand-tonne phase of expansion that would start operation in late 2005 or early 2006. If this materialises, Landsvirkjun will build the Nordlingaalda Diversion in accordance with the Minister's decision, while also negotiating with Reykjavík Energy and Sudurnes Regional Heating on purchasing power for Nordurál from them.

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As in previous times, the issues of Landsvirkjun have been at the centre of public debate in Iceland, and there has been deep controversy over hydropower

plans and environmental affairs. Landsvirkjun has made every effort to give information on plans for hydro-power development that was as accessible and complete as possible, and has proceeded farther than the law requires in providing the public with information and access to documents. In this way, the company intends to encourage objective, frank discussion of energy matters, providing those who so desire with an effective means of input during democratic decision-making, for instance based on legislation regulating the assessment of environmental impact. Moreover, no other Icelandic company has invested so much money and effort in research on Icelandic nature as Landsvirkjun has done for many years now, with the express purpose that decisions on energy issues may be based on the most accurate knowledge possible. It therefore came as a complete surprise to the company's directors when two professors at the University of Iceland accused Landsvirkjun in the media of having exercised inappropriate influence and methods when processing and evaluating their research and others' in the assessment of environmental impact regarding Nordlingaalda Diversion. Accusations of this type are so serious that it is essential to stress the absolute lack of occasion for them. All documents and interaction with those involved are public, as are all specialist reports and research pertaining to the

matter. It has proved impossible to point out any documents that were not both made public in connection with the assessment and received discussion and were evaluated in an open, objective manner by the authorities. Hopefully, this occurrence will not diminish the excellent and long-standing co-operation Landsvirkjun has had with scientists, research institutes and the academic community.

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Landsvirkjun has never objected to people being critical of the company's operations and considers informed criticism a good means of ensuring that the company will continuously improve in its performance of the tasks entrusted to it by law. Now that the final decision to launch the Kárahnjúkar hydropower project has been taken and construction has started there, followed by the ruling by the acting Minister for the Environment on Nordlingaalda Diversion, the Board of Directors and staff of Landsvirkjun hope that it will be possible to achieve as much consensus as possible concerning the development at hand. Landsvirkjun intends to ensure that the public will have good opportunity to follow the construction and the company is committed to close co-operation with the local communities, authorities and all other interested parties. We are convinced that the Kárahnjúkar Project will benefit the nation no less than Landsvirkjun.

Chairman

Managing Director

# Operations

## Transmission

Landsvirkjun began cooperation with Statnett in Norway and the engineering consultants Afl and Línuhönnun in Iceland, with the objective of exploring the possibilities for increasing the transmission capacity of high-voltage lines and adding efficiency to transmission grid operations. The goal is to increase energy transmission at comparatively little cost through new procedures in system control.

A new energy control system was adopted in August, purchased from Alstom in France. The new system has turned out well, enabling Landsvirkjun to utilise the latest technology for

processing data when managing the energy system and to fulfil growing requirements on providing information. The near future will see considerable development in the new energy control system, particularly on account of harmonising operations with the new Electric Energy Act.

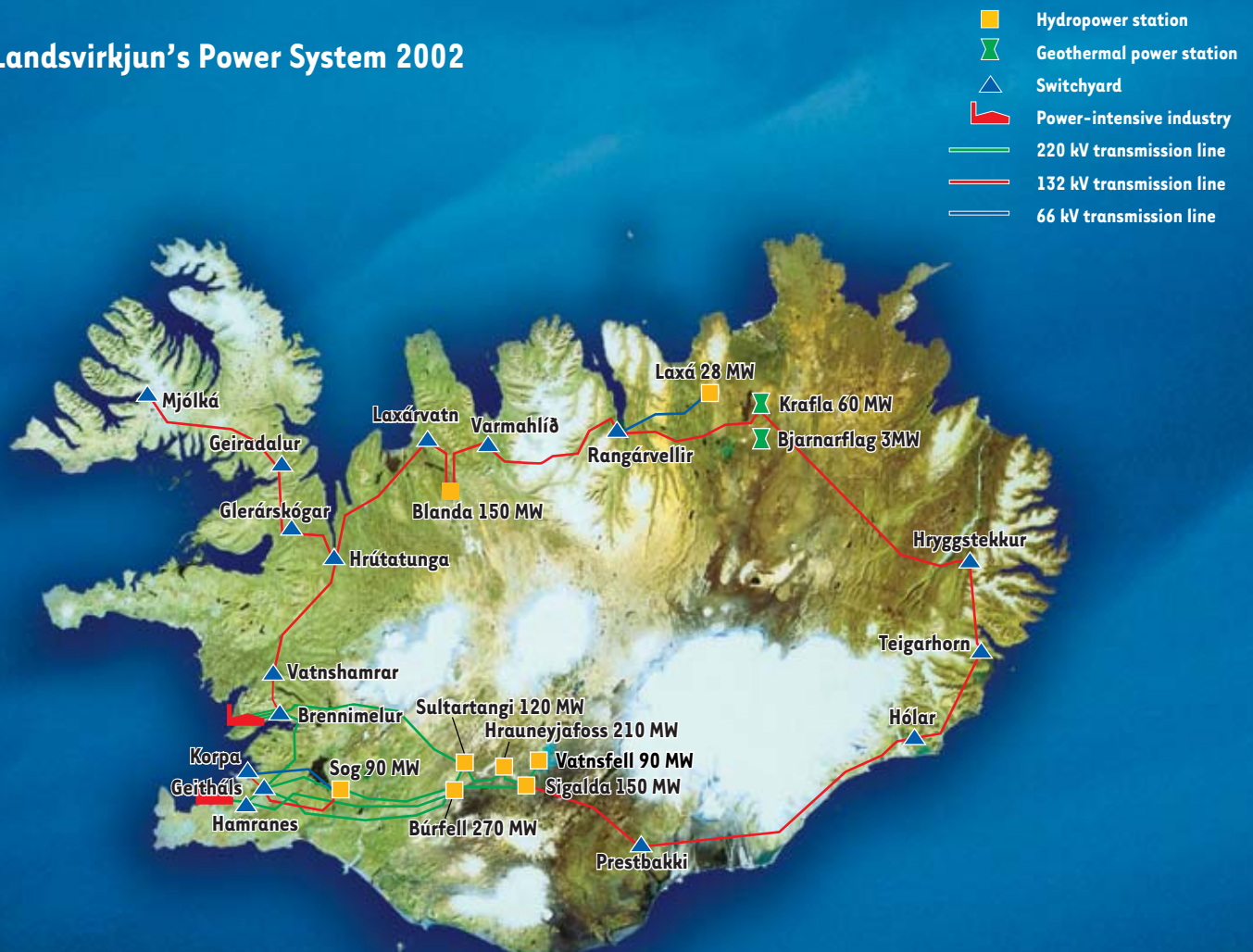
A thorough examination was carried out of controls and relay equipment in the transmission grid, with the purpose of formulating policy in these matters for coming years. Besides a detailed plan for adjustments to relay protection in the system, a framework plan was compiled for augmenting the control and relay devices of the transmission grid.

Disruptions in operation without notice occurred 137 times in 2002, compared to 151 times in 2001. The resulting system outage minutes numbered 72.6, which is somewhat more than the previous year. If the West Iceland line is not included, system outage drops considerably, i.e. to 22.4, a lower figure than for 2001.

## Power Production, Purchase and Sales

Landsvirkjun's production of electricity amounted to 7,173 GWh in 2002, which is the highest production ever and a 4.9% increase over the year before. The total domestic production was 8,408 GWh, with the share of Landsvirkjun in that being 85.3%, a proportion remain-

## Landsvirkjun's Power System 2002





ing unchanged between years. In the total generated by Icelandic hydroelectric plants, the company's share was 6,723 GWh, or over 96%, and 450 GWh in geothermal power plants, or over 31% of the overall amount. In addition, Landsvirkjun bought 634 GWh of electricity from Reykjavík Energy and Sudurnes Regional Heating for resale to power-intensive industry.

The sale of electricity from Landsvirkjun amounted to 7,485 GWh in 2002, an increase of 4% over the year before. Losses in the transmission system and the company's own use amounted to 320 GWh, or about 4.1% of the electricity turnover. Although the sale of primary electricity to public utilities decreased by 0.8%, total sales to public utilities increased by nearly 1% if secondary electricity is added on. The sale of electricity to power-intensive industry climbed by 5.4%.

### Marketing

Conditions were good in Landsvirkjun's water budget the entire year; in fact, January was especially favourable with regard to reservoir inflow, and the com-

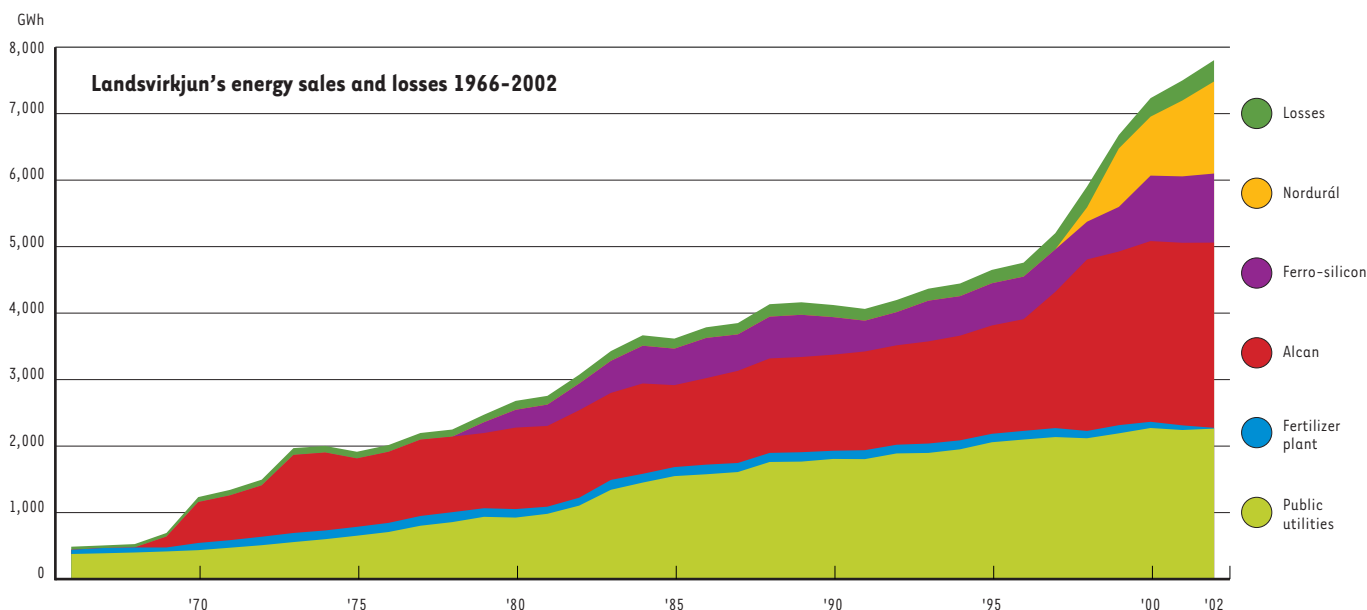
pany let its customers benefit from this positive status by lowering the electricity price on excess power.

In the first months of the year, it became clear that Reydarál lacked the confidence to begin building an aluminium plant in Reydarfjörður according to the agreement that had been reached with Landsvirkjun. Subsequently, Landsvirkjun assumed negotiations with the world's largest aluminium producer, Alcoa. The long and short of it is that negotiations lasted from late spring until the turn of the year and concluded with an agreement on Alcoa constructing a 322,000-tonne aluminium plant in Reydarfjörður, to commence operations in 2007. Simultaneously, Landsvirkjun aims to build and begin operating Kárahnjúkar Power Station and the associated transmission structures.

During the year, Landsvirkjun also worked at an electricity contract for the expansion of Nordurál from a 90,000-tonne-per-year production capacity to a capacity of 180,000 tpy. In order to procure electricity for this project, work proceeded on contracts for purchasing

power from Sudurnes Regional Heating and Reykjavík Energy, along with preparing for construction for the Nordlingaalda Diversion.

<i>Landsvirkjun's Power Stations</i>	
<b>Hydropower stations</b>	<b>1,107 MW</b>
Búrfell	270 MW
Hrauneyjafoss	210 MW
Blanda	150 MW
Sigalda	150 MW
Sultartangi	120 MW
Vatnsfell	90 MW
Írafoss	48 MW
Laxá	28 MW
Steingrímsstöð	26 MW
Ljósifoss	15 MW
<b>Geothermal stations</b>	<b>63 MW</b>
Krafla	60 MW
Bjarnarflag	3 MW
<b>Fossil fuel stations</b>	<b>42 MW</b>
Straumsvík	35 MW
Akureyri	7 MW
<b>Total installed capacity</b>	<b>1,212 MW</b>



# Research, development and construction

## *Planning and environmental impact assessment*

Upon a positive ruling in December 2001 by the Minister for the Environment on the environmental impact assessment of Kárahnjúkar Power Plant, work was continued in connection with

the Planning Agency accepted the project in a ruling on 12 August. Ten parties appealed the Planning Agency ruling to the Minister for the Environment, who pronounced a ruling at the end of January 2003, accepting the Diversion with some radical modifications.

Preparatory construction began in autumn of 2001. The task included building a bridge over Tungnaá; laying a road to the power station and tracks to the upper end of the headrace tunnel; excavating for the powerhouse intake and for part of the surge tank; and digging some of the headrace channel. This undertaking was completed late in the year, but further construction has now been postponed.



Litlibær cottage in Skötufjörður, north-west Iceland. A wooden house built in 1896 with stone walls on the long sides and a turf and grass-covered roof. Originally two families lived in the house, which therefore had a wall inside to divide it down the middle. Acquired by the National Museum in 1999.

planning the area for hydroelectric development. When this planning process was completed in August, it was possible to apply for a construction permit. On 29 July 2002, the construction permit was issued by the Minister of Industry. The finalised permit for constructing the power plant was anticipated at the beginning of 2003, whereas permits for various preparatory construction projects had been issued earlier.

Work on the environmental impact assessment for Nordlingaalda Diversion continued during 2002, having commenced in 1996, and the assessment report was submitted to the Planning Agency on 19 April. Although there was much controversy about the assessment,

## *Vatnsfell Power Station*

Construction on Vatnsfell Power Station, begun in the summer of 1999, was completed for the most part. Various difficulties emerged during trials and plant start-up, including fire damage to a generator and damages to an intake due to pressure knocks. In the light of extremely fast plant construction, extensive equipment tests were executed in the latter part of summer; since then, the plant has worked without a failure.

## *Búdarháls Power Project*

In the early part of the year, tender design and the preparation of tender documents were finished for all the major project components of the Búdarháls Project

## *Refurbishment of power stations*

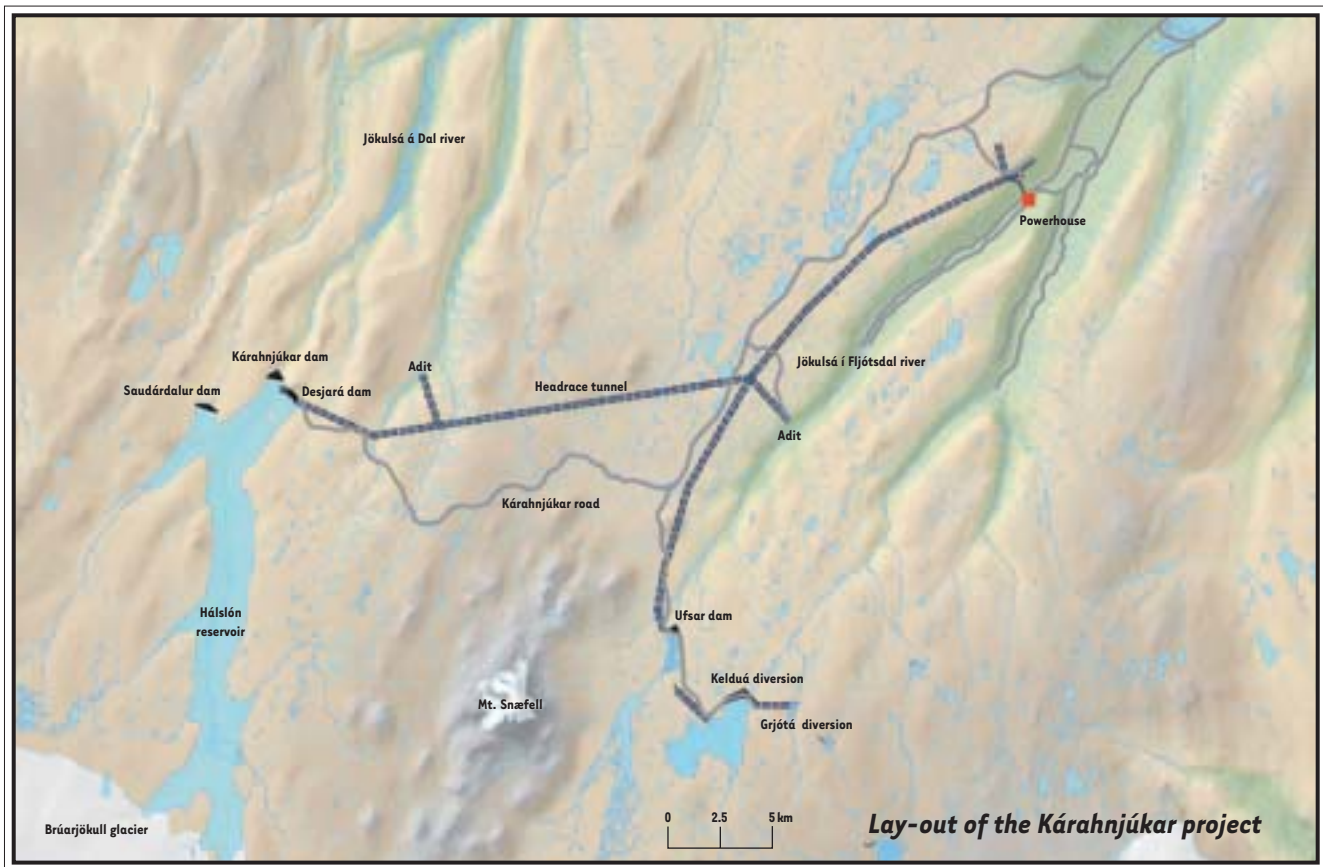
The renovation that has been in progress for many years at the power stations along the Sog river was almost completed. The largest project there was a new service building which has now arisen at the Írafoss Station. In addition, renovation projects were completed at the Hrauneyjafoss Station and Búrfell Station.

Work may be said to have been completed on Krafla Power Plant last year, though parallel to this a variety of renovations also occurred, for example of control and electrical equipment.



The church at Grund, north Iceland

# Kárahnjúkar Power Project



The Kárahnjúkar project is a 690 MW hydro project in the north east of Iceland that will be constructed between 2003-2007. The project area has been studied for the last two decades and final research to complete environmental impact assessment (EIA) was done in 2000-2001. Comprehensive legislation on environmental impact assessment based on European Union standards regulates the procedure when industrial and power developments are planned in Iceland. This legislation ensures open debate, ready access to information and democratic decision-making. Iceland is in fact the only country in Europe that guarantees all members of the public the right to participate in every environmental impact assessment process. The EIA process was completed in December 2001 with a ruling by the Ministry for the Environment permitting the project. The Parliament of Iceland passed an enabling act in April 2002 allowing the

construction and operation of the hydro station. This bill was passed with a vast majority, with only 9 out of 63 members of Parliament voting against the project. Recent polls show clear majority support among the Icelandic population for the power project and support in the local communities of east Iceland is general.

The Kárahnjúkar project involves harnessing in a single hydroelectric plant the two glacial rivers Jökulsá á Dal and Jökulsá í Fljótsdal flowing north from the great Vatnajökull glacier.

The hydropower station will utilise a flow of about 144 m<sup>3</sup> per second, rated head of 520 m and a generating capacity of some 4,560 GWh per year. Two high-voltage transmission lines will be built from the station to an aluminium plant at Reydarfjörður in eastern Iceland.

The glacial river Jökulsá á Dal will be

dammed by the mountain Fremri-Kárahnjúkar, creating the 57 km<sup>2</sup> reservoir Háslón. A small reservoir of 1 km<sup>2</sup>, Ufsarlón, will be formed in Jökulsá í Fljótsdal. Water will be conducted through a system of tunnels, 40 km long, from Háslón eastwards to the escarpment of Teigsbjarg, where two pressure tunnels lead to an underground powerhouse. In the power station, the water will flow through six generating units before running onwards through an underground tunnel and canal out into Jökulsá í Fljótsdal.

## *Project design and preparation*

Greatly varied technical preparations and research continued for the Project during 2002. Work on assorted field research proceeded into the autumn. Several changes had to be made in the power project in order to coordinate the aluminium and power plants with each other. Prequalification for the building

of Kárahnjúkar Dam and boring of the headrace tunnel was advertised near the end of 2001, with six contractor consortia being selected early in 2002 to make offers for each task. Tender design was completed and tender documents prepared and documents sent to selected contractors on 16 August. Offers were

involved road and bridge construction and electrification of the construction site, as well as making the adits to the diversion tunnel at Kárahnjúkar Dam and preparation at the entrances to the headrace tunnel adits. These jobs were largely finished by the turn of the year. Kárahnjúkar Road and the bridge over

Plant started in the autumn of 2002 with preparatory work as mentioned above. The principal project components, such as building Kárahnjúkar Dam and drilling the headrace tunnel, are scheduled to begin in early spring, 2003.

The construction of Kárahnjúkar Dam will take three-and-one-half years, to be concluded near the end of 2006. Construction on Desjará Dam and Saudárdalur Dam fit easily within this time frame, and the collection of water in Háslón reservoir will commence somewhat prior to finishing dam construction.

Drilling the headrace tunnel from Háslón out to Teigsbjarg will take about the same length of time as constructing Kárahnjúkar Dam. Parallel to this, the diversion from Jökulsá í Fljótssdal will be built, although starting somewhat later.



The site of Háslón Reservoir. The Kárahnjúkar Dam will rise in the middle of the picture, with Mt. Fremri-Kárahnjúkar on the right.

opened on 6 December and the lowest offer for each job came from the Italian company Impregilo S.p.A. Negotiations with the company lasted past the end of the year.

The project design and determination of design prerequisites for two power lines between the switchgear in Fljótssdalur valley and the aluminium plant of Fjardaál at Reydarfjörður, were in the main finished by year's end. The lines will be around 51 km long, raised on conventional, lattice-steel masts to carry a measured voltage of 420 kV and an initial operating voltage of 220 kV.

Preparatory construction for Kárahnjúkar Power Project started in the late summer, after Landsvirkjun and Alcoa had signed an agreement on 19 July about sharing construction costs. This

Jökulsá á Dal were dedicated at a festive ceremony on 5 December 2002.

#### *Switchgear and transmission lines*

Kárahnjúkar Power Station will be joined to the national grid via switchgear located 80 m upstream from the access tunnel to the powerhouse and connected with the inter-regional transmission line. The inter-regional transmission line will curve off Fljótssdalsheidi over Teigsbjarg and down to the switchgear, from where an underground cable will lie across the valley of Fljótssdalur and connect with the inter-regional line on the east side of the valley. Two high-voltage lines will lead from the switchgear to the aluminium smelter in Reydarfjörður.

#### *Construction period and manpower requirements*

Construction on Kárahnjúkar Power

Construction on the powerhouse, including the access tunnel and discharge route, will start in the autumn of 2003, with plans for the installation of machines and electrical equipment to begin at the close of 2004.

At the outset of 2007, water will be released into the first generating units to test them, while the delivery of electricity from the plant's first generating units is expected to commence in April 2007 and full operation of the power plant to be realised in September 2007.

In all, estimates call for 4,000 man-years to build the power plant and accompanying transmission structures.

#### *Sale of electricity to Fjardaál*

Although the electricity price which Landsvirkjun has agreed on with Alcoa is confidential, there are a number of things in the contract revealing its



nature. Such electric power contracts are extremely complicated documents, harbouring a great deal more than provisions on electricity prices. A few points from the contract can be seen below:

- The contract is between Landsvirkjun and Fjardaál, which will build and operate the aluminium plant; Fjardaál, on the other hand, will be fully owned by the parent company in the USA, Alcoa Inc.
- The parent company, Alcoa Inc., signed the contract with respect to guaranteeing purchase of the electricity and being responsible for completion of building the aluminium plant.
- The term of the contract is 40 years from when the aluminium plant has reached full operation, but the energy price will be renegotiated in the middle of the term, with the new energy price applying to the latter 20 years of the contract period.
- The quantity of energy in the contract is 4,704 GWh, but 10% of the amount will be secondary energy



*The farm and church at Thingvellir, south Iceland*

that can be cut back during difficult conditions in the power system.

- The schedule is to deliver electricity to the first pot in the aluminium plant on 1 April 2007 and to achieve full production on 1 October that same year.
- The price of energy will be tied to the world market price for aluminium, as it is published at each time by LME, the London Metals Exchange.
- During the renegotiation of the energy price, attention shall be given to the global energy price for aluminium plants, as it is at that time.
- Fjardaál is obligated to pay the full

price for 85% of the contracted energy, regardless of use. The purchasing obligation applies to the entire 40-year term of the contract, and is guaranteed by the parent company, Alcoa Inc.

- If there should be a basic change in the field of aluminium production or the energy sector during the contractual period which can be proven to cause a significant disadvantage for one of the two parties to the contract in relation to risk or profit from the project, then the party suffering the disadvantage can request a review of the energy price.

### *Environment and safety*

Landsvirkjun emphasises that consideration be shown for safety and the health of workers during projects it sponsors and that the environmental effects of construction remain minimal.

A policy and goals have been established for environmental issues during construction and are to be enforced during the construction period of the Kárahnjúkar Project.

The target is to keep environmental disruption to a minimum during the construction period and to clean up the project area in an exemplary way upon completion.



The site of the country's largest dam. The Kárahnjúkur Dam will be about 190 m high and 730 m long, a gravel-filled structure with a concrete facing on the reservoir side.

Landsvirkjun was operated at a profit of ISK 5,729 million, compared with a loss of ISK 1,839 million in the previous year. The improved performance is connected above all with the strengthened exchange rate of the Icelandic króna, since the bulk of the company's debts is in foreign currencies. Return on equity was 14.7%. The financial statements of Landsvirkjun are based on the same accounting methods as in previous years.

lower by ISK 210 million, whereas general operating and maintenance costs increased by ISK 141 million, or 3.3%.

With respect to capital earned by company operations, profit before depreciation and financial items (EBITDA) amounted to ISK 9,146 million, or 67.4% of revenues, which is ISK 427 million higher than in the previous year. Landsvirkjun's profit before financial

rate developments during the year. Nominal interest rates also fell significantly between years; the average interest rate being 3.5% during 2002, compared to 5.3% the year before. The decrease in nominal interest can be attributed to falling interest levels on international markets. The total decrease in interest expenses from the year before was ISK 1,200 million.

### *Balance sheet and cash flows*

The total assets of Landsvirkjun decreased by ISK 10.9 billion during the year, while liabilities fell by ISK 13.2 billion. Thus registered equity increased by ISK 2.3 billion in 2002. The drop in assets calculated in ISK was the result of revaluing assets, and the company's revaluation factor for 2002 being negative by 7.72%; cf. explanation No. 1 to the financial statements. The company's total assets at the end of the year were ISK 121.2 billion. Liabilities totalled ISK 81.3 billion and equity amounted to ISK 40 billion. The equity ratio at the end of 2002 was 33%, as against 28.5% at the close of 2001.

Whereas alterations in price levels and exchange rates have a decisive impact on the operating performance of Landsvirkjun, they have a relatively insignifi-



Grænavatn in the Mývatn area, north Iceland. An impressive facade constructed about 1913 for a turf house, of which only the walls now remain. The house was built for two families, and shows the influence of the rural style of the area. Acquired by the National Museum in 2000.

### *Income statement*

Operating revenues in 2002 were ISK 13,577 million, increasing by 4.4% from the previous year or by ISK 568 million. This increase is the result of increased electricity sales to power intensive industry and public utilities, along with the contribution of a price increase to public utilities on 1 August last year. Landsvirkjun's revenues from sales to power intensive industry are in foreign currencies and linked to the price of aluminium. By means of active risk management, it was possible to secure the income that had been projected from the sale of electricity to power intensive industry.

costs was ISK 3,965 million, having increased by 19.1% between years.

Net interest expenses were negative by ISK 1,764 million, decreasing by ISK 6,931 million from the previous year. The main explanation here is exchange

Operating expenses totalled ISK 9,612 million, decreasing slightly from 2001, or by ISK 69 million. Depreciation was



*The Parliament Building and the Cathedral in Reykjavik*



cant effect on the year's cash flow. Cash flow from operating activities added up to ISK 6,432 million, a rise of ISK 890 million from 2001.

Overall investments during the year reached ISK 5,175 million. The most important investments related to Vatnsfell Power Station and preparations for Kárahnjúkar Power Project, as well as to research on power development and to refurbishment at older stations.

### Risk management

During the year, a new approach to risk management was used at Landsvirkjun, after a new and improved policy was adopted by the company board at year's outset. The policy aims at defending Landsvirkjun against fluctuations in currency exchange rates, changes in interest rates and variations in revenue linked to the price of aluminium. A special risk management committee was appointed, responsible to the Managing Director. As already mentioned, in 2002 risk management proved itself successful.

### The aluminium market in 2002

The price of aluminium went down during the first half of 2002, falling to a minimum of just below \$1,300 per tonne in September. Subsequently, the price increased, momentarily reaching \$1,400 per tonne, though at the end of the year it was around \$1,350 per tonne.

Due to uncertainty in world affairs, the slow recovery of the U.S. economy, and supply in excess of demand, there are prospects of aluminium prices remaining low into the latter half of 2004.

### Funding

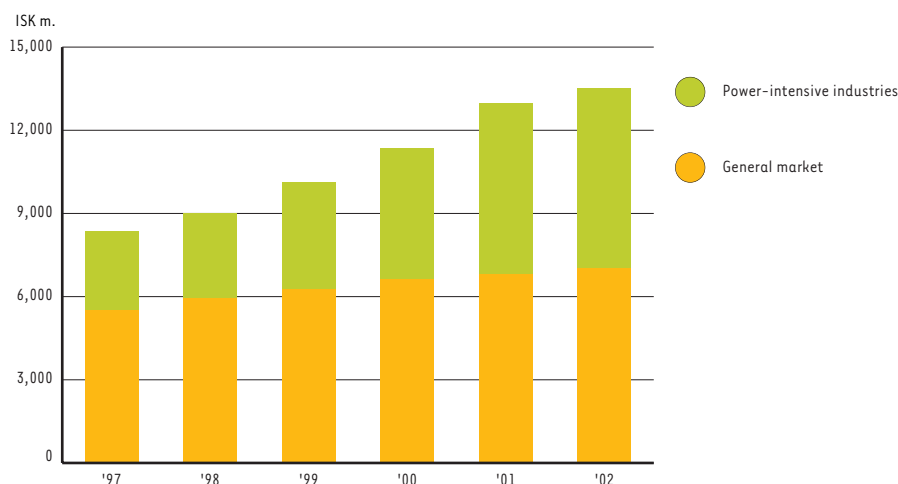
Landsvirkjun's funding on international markets went smoothly, and the company borrowed USD 50 million and

EUR 12 million for the purpose of amortising older and less favourable loans. In every case the bonds were issued under the company's USD 1 billion EMTN Programme. The above bonds were on excellent terms, or just about the LIBOR interbank rate on average.

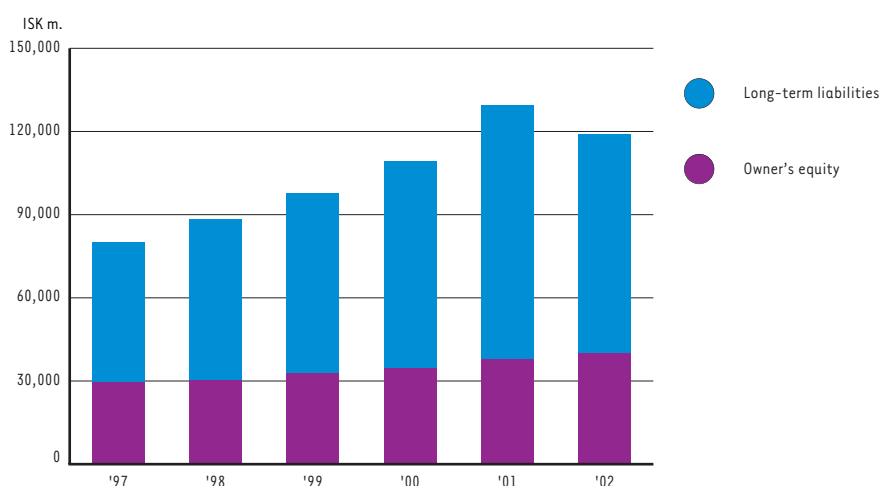


Sjárvarborg Church in Skagafjörður, north Iceland. It is of the older type of churches without a tower, built in 1853. Acquired by the National Museum in 1972.

Composition of revenues – 2002 prices



Long-term liabilities and owner's equity – Prices at year end 2002



## DIRECTORS' REPORT

The result of the company's operation in 2002 was net profit of ISK 5,729 million compared with net loss of ISK 1,839 million in the previous year. This change can for the most part be explained by exchange rate gains during the year. The net real interest costs were negative by 2% in 2002. Operating revenues in 2002 increased by ISK 568 million from the previous year, operating expenses decreased by ISK 69 million and net financial costs decreased by ISK 6,931 million. Cash generated by operating activities was ISK 6,432 million in 2002 compared to ISK 5,542 in 2001.

Investments amounted to ISK 5,175 million compared to ISK 8,377 million in 2001. Repayments of long-term debts exceeded new long-term borrowings by ISK 1,605 million in 2002 while new long term loans exceeded repayments by ISK 3,826 in the previous year.

Landsvirkjun is a partnership, jointly owned by the State Treasury, with a 50% interest, the City of Reykjavík, which holds 44.525%, and the Town of Akureyri which owns a 5.475% interest. The company is an independent legal entity having independent finances and accounting.

The Board of Directors will at the annual meeting propose a dividend payment to the owners for 2002 in conformity with the provisions of the Act on Landsvirkjun and the Partnership Agreement between the owners. According to said regulation the Board's proposal will amount to ISK 350 million should the Board's proposal be approved.

The Board of Directors and the Managing Director hereby confirm the 2002 Financial Statements by means of their signature.

Reykjavík, March 8, 2003

*Board of Directors:*

Jóhannes Geir Sigurgeirsson  
Árni Grétar Finnsson  
Helgi Hjörvar  
Pétur Jónsson

Edda Rós Karlsdóttir  
Kristján Þór Júlíusson  
Vilhjálmur Th. Vilhjálmsson

*Managing Director:*

Fridrik Sophusson

## AUDITOR'S REPORT

To the Board of Directors of Landsvirkjun.

We have audited the accompanying balance sheet of Landsvirkjun as of December 31, 2002, and the related statement of income and statement of cash flows for the year then ended. 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.

We conducted our audit in accordance with generally accepted auditing standards. 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 statements presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements give a true and fair view of the financial position of Landsvirkjun as of December 31, 2002, and the results of its operation and its cash flows for the year then ended, in accordance with the law and generally accepted accounting principles in Iceland.

Reykjavík, March 8, 2003.

**KPMG Endurskoðun hf.**

Jón Eiríksson  
Ólafur Nilsson

# Income statement 2002

	Note	2002	2001
<b>OPERATING REVENUES</b>			
Power sales - Local utilities .....		7,024,941,098	6,788,499,978
Power sales - Power-intensive industries .....		6,503,640,126	6,169,217,478
		<u>13,528,581,224</u>	<u>12,957,717,456</u>
Sale of steam from geothermal wells .....		20,887,900	22,485,700
Other income .....		27,285,281	29,037,246
<i>Total operating revenues</i>		<u>13,576,754,405</u>	<u>13,009,240,402</u>
<b>OPERATING EXPENSES</b>			
Energy .....	1	2,387,092,912	2,298,522,524
Transmission .....		717,265,381	647,646,808
Engineering and construction .....		( 51,270,570 )	( 64,950,861 )
Cost of general research .....		302,856,325	254,182,449
General administrative expenses .....	13	1,074,613,451	1,154,236,849
Depreciation .....	1,4	5,181,523,968	5,391,232,139
<i>Total operating expenses</i>		<u>9,612,081,467</u>	<u>9,680,869,908</u>
<i>Operating profit</i>		<u>3,964,672,938</u>	<u>3,328,370,494</u>
<b>FINANCIAL COSTS</b>			
Interest revenues .....	2	214,347,499	313,344,602
Interest expenses .....		( 3,156,034,315 )	( 4,358,272,508 )
Exchange-rate gain (losses) .....	1	11,329,607,899	( 12,575,773,771 )
Gain (losses) on net monetary position .....	1	( 6,623,517,000 )	11,453,659,000
		<u>1,764,404,083</u>	<u>( 5,167,042,677 )</u>
<b>NET PROFIT (NET LOSS)</b>		<u>5,729,077,021</u>	<u>( 1,838,672,183 )</u>

All amounts are in ISK

# Balance sheet as at December 31, 2002

## ASSETS

	Note	2002	2001
<b>PROPERTY, PLANT AND EQUIPMENT</b>			
In operation	1,3		
Power stations . . . . .		164,952,343,133	172,596,704,991
Substations . . . . .		18,218,121,592	19,714,819,786
Power lines . . . . .		25,310,560,925	27,418,174,545
Vehicles, equipment and dredger . . . . .		906,882,574	986,879,413
Office building and equipment . . . . .		2,361,309,126	2,464,485,203
		<u>211,749,217,350</u>	<u>223,181,063,938</u>
Less: Accumulated depreciation . . . . .		100,285,161,179	104,781,083,322
<i>Total in operation</i>		<u>111,464,056,171</u>	<u>118,399,980,616</u>
<b>Construction and research</b>			
Development costs . . . . .		2,168,954,321	3,235,328,830
Projects under construction . . . . .		2,424,065,908	4,544,708,707
<i>Total construction and research</i>		<u>4,593,020,229</u>	<u>7,780,037,537</u>
<b>Shares and long-term notes receivable</b>			
Wholly owned subsidiary . . . . .	5	260,303,934	263,666,914
Shares in other companies . . . . .	5	193,235,185	102,182,447
Long-term notes receivable . . . . .		127,274,986	60,125,016
<i>Total shares and long-term notes receivable</i>		<u>580,814,105</u>	<u>425,974,377</u>
<i>Total property, plant and equipment</i>		<u>116,637,890,505</u>	<u>126,605,992,530</u>
<b>CURRENT ASSETS</b>			
Accounts receivable - trade . . . . .		1,547,654,311	1,622,303,061
Accounts receivable - other . . . . .		159,888,734	261,542,047
Inventories (oil) . . . . .		33,808,500	33,792,500
Cash and bank deposits . . . . .		2,861,055,978	3,617,194,788
<i>Total current assets</i>		<u>4,602,407,523</u>	<u>5,534,832,396</u>
<b>Total assets</b>		<u>121,240,298,028</u>	<u>132,140,824,926</u>

## LIABILITIES AND OWNERS' EQUITY

	Note	2002	2001
<b>OWNERS' EQUITY</b>	6		
Owners' contribution .....		25,463,981,000	23,373,032,000
Retained earnings .....		14,514,875,959	14,322,635,936
		<u>39,978,856,959</u>	<u>37,695,667,936</u>
<b>OBLIGATIONS</b>			
Accrued pension obligation .....	7	1,645,379,000	1,510,165,000
<b>LONG-TERM LIABILITIES</b>			
Long-term liabilities .....	8	68,855,966,935	87,311,709,732
<b>CURRENT LIABILITIES</b>			
Accounts payable .....		1,207,471,272	1,532,006,975
Accrued interest payable .....		1,113,870,769	1,048,670,314
Current maturities of long-term liabilities .....	9	8,438,753,093	3,042,604,969
<i>Total current liabilities</i>		<u>10,760,095,134</u>	<u>5,623,282,258</u>
<i>Total liabilities</i>		<u>81,261,441,069</u>	<u>94,445,156,990</u>
<b>Total liabilities and owners' equity</b>		<u>121,240,298,028</u>	<u>132,140,824,926</u>

All amounts are in ISK

# Statement of cash flows in 2002

	Note	2002	2001
<b>OPERATING ACTIVITIES</b>			
Cash received from customers .....		13,738,834,290	13,051,560,608
Cash expenses .....		( 4,332,254,166 )	( 3,775,127,146 )
Interest income .....		226,163,890	876,182,955
Cash payment for interest costs .....		( 3,200,476,820 )	( 4,610,124,990 )
	10	<u>6,432,267,194</u>	<u>5,542,491,427</u>
<b>INVESTING ACTIVITIES</b>			
Vatnsfell project .....		( 538,369,292 )	( 3,575,673,944 )
Kárahnjúkar project .....		( 1,023,169,851 )	-
Refurbishment of Búrfell station .....		( 202,665,208 )	( 268,541,842 )
Refurbishment of Sog stations .....		( 393,609,577 )	( 601,558,229 )
Extension of Krafla station .....		( 147,510,429 )	( 254,439,694 )
Refurbishment of Straumsvík thermal station .....		( 81,683,940 )	( 108,714,696 )
Vatnsfell diversion .....		( 256,127,350 )	( 294,598,148 )
Refurbishment of Thórisós diversion .....		( 316,050,777 )	0
Substations .....		( 416,125,012 )	( 604,137,053 )
Power lines .....		( 34,222,742 )	( 167,467,661 )
Research and development .....		( 1,143,317,535 )	( 1,695,517,077 )
Other capital expenditure .....		( 621,757,507 )	( 806,671,188 )
		<u>( 5,174,609,220 )</u>	<u>( 8,377,319,532 )</u>
(Increase) in long-term notes receivable .....		( 87,134,667 )	( 37,956,221 )
		<u>( 5,261,743,887 )</u>	<u>( 8,415,275,753 )</u>
<b>FINANCING ACTIVITIES</b>			
New long-term liabilities .....		0	19,863,537,172
Amortization of long-term liabilities .....		( 1,605,359,117 )	( 16,037,607,469 )
Cash dividend .....		( 321,303,000 )	( 284,662,000 )
		<u>( 1,926,662,117 )</u>	<u>3,541,267,703</u>
(Decrease) increase in cash during the period .....		( 756,138,810 )	668,483,377
Cash at beginning of year .....		3,617,194,788	2,948,711,411
<i>Cash at end of year</i> .....		<u>2,861,055,978</u>	<u>3,617,194,788</u>

All amounts are in ISK

## ACCOUNTING POLICIES

1 The financial statements are prepared in conformity with the provisions of the Financial Reporting Act and the related regulations on the form and content of financial statements. The methods used in preparing the financial statements are in all material respects consistent with those of the previous year.

The following is a summary of the accounting policies used in preparing the accounts:

- The original cost of property, plant and equipment is revalued to year-end prices. For this purpose the original cost is divided into two parts. One part, representing local Icelandic cost, is estimated as one-third of the total original cost, while the other part, representing foreign cost, is estimated as two-thirds of the original cost. The local portion is revalued according to changes in the Icelandic index of construction cost, whereas the foreign portion is revalued on the basis of changes in the exchange value of the Icelandic króna in relation to the SDR, as adjusted for foreign inflation. The revaluation factor in accordance with this calculation is -5.73% for the current year.
- Depreciation of fixed assets in the income statement is shown at mid-year prices, while accumulated depreciation in the balance sheet is shown at year-end prices.
- The fixed assets of the company are depreciated on a straight-line basis as follows:

		<i>Estimated useful life</i>
Power plants:		
Construction expenditure etc. . . . .	1.67%	60 years
Machinery . . . . .	3.33%	30 years
Dams and waterways . . . . .	1.67%	60 years
Thermal stations . . . . .	4.00%	25 years
Substations . . . . .	3.33%	30 years
Power lines . . . . .	2.78%	36 years
Office buildings . . . . .	2.00%	50 years
Equipment . . . . .	12-25%	4-8 years
Vehicles . . . . .	20.00%	5 years
Research projects . . . . .	12.50%	8 years
- Indexation on local debt and foreign exchange differences are expensed in the income statement. To counterbalance such revaluation a price-level gain on the net monetary liabilities of the company is calculated. The price-level gain is calculated based on the net liabilities of the company at the beginning of the year, taking into consideration changes in that position during the year. The result of this calculation is that the net profit reported is stated at mid-year prices.
- Interest is capitalized during construction. Once the respective assets are operational the interest cost is expensed.
- Expenditures for general research are expensed as incurred. Development costs for future power projects are capitalized. Interest costs, however, on these development costs are not capitalized. These costs will be amortized over a period of 8 years, if no firm commitment has been issued to complete the projects. This policy was decided upon with reference to the risk and uncertainty associated with the future benefits of such costs. Additionally, the viability of one future project can change the likelihood of another power project being materialized. Previously, capitalized development costs were either written off when the projects were abandoned or were added to the cost of construction for the projects that were implemented.

## FINANCIAL COSTS

2 Interest costs, net, consist of the following (ISK million):

Interest revenues . . . . .		238
Tax on interest revenues . . . . .	( 24 )	
Interest expenses . . . . .	( 2,954 )	
Guarantee fee paid to owners . . . . .	( 202 )	
Exchange-rate gain on long-term liabilities . . . . .		11,455
Exchange-rate (losses) on other items . . . . .	( 125 )	
(Losses) on net monetary position . . . . .	( 6,624 )	
		1,764

The net real interest cost, to the amount of ISK -1,764 million, is negative by approximately 2% on the average outstanding long-term loans for the year 2002, compared to 6.3% net real interest cost for the year 2001. The average for the years 1987-2001 is 4.5%. The net real interest cost in percentages is computed by comparing total interest cost and exchange-rate differences with the revaluation factor used by the company, as explained in note 1.

## PROPERTY, PLANT AND EQUIPMENT

3 Property, plant and equipment in operation consist of the following (ISK million):

	<i>Power stations</i>	<i>Substations</i>	<i>Power lines</i>	<i>Other assets</i>	<i>Total</i>
Costs:					
Balance Jan. 1, 2002	172,597	19,715	27,418	3,452	223,182
Increase 2002	6,079	834	10	132	7,055
Revaluation 2002	( 13,724 )	( 1,571 )	( 2,118 )	( 278 )	( 17,691 )
Retired/sold	0	( 760 )	0	( 37 )	( 797 )
	164,952	18,218	25,310	3,269	211,749
Accumulated depreciation:					
Balance Jan. 1, 2002	79,510	9,991	13,912	1,368	104,781
Depreciation 2002	3,090	541	770	167	4,568
Revaluation 2002	( 6,262 )	( 793 )	( 1,105 )	( 112 )	( 8,272 )
Retired/sold	0	( 760 )	0	( 32 )	( 792 )
	76,338	8,979	13,577	1,391	100,285
<i>Book value at end of year</i>	88,614	9,239	11,733	1,878	111,464

4 Depreciation in 2002 consists of the following (ISK million):

Power stations	3,090
Substations	541
Power lines	770
Other assets	167
<i>Depreciation of assets in operation</i>	4,568
Other	10
Research projects	603
	5,181

5 The nominal value of the share capital in Fjarski ehf., a wholly owned subsidiary of Landsvirkjun, is ISK 250 million. Net loss of Fjarski ehf. for the year 2002 was ISK 3.4 million, which has been charged to Landsvirkjun's accounts by the equity method. At year end the total assets of the company amounted to ISK 600 million and owners equity ISK 260 million.

During the year, Landsvirkjun increased its share in Tetra Ísland hf. by ISK 130 million, in Vistorka hf. by ISK 6.6 million, in Enex by ISK 26.0 million, and in Sipenco by ISK by 3.5 million (60.000 CHF). Landsvirkjun has decided to write down the book value of its share holdings by ISK 137 million due to uncertainty of future development of the companies.

Landsvirkjun's holdings consist of the following (ISK million):

	<i>Share</i>	<i>Nominal value</i>	<i>Book value</i>
Tetra Ísland ehf	29.4%	168.8	200.2
Vindorka hf	12.4%	11.5	58.1
VistOrka hf	6.2%	3.2	13.7
Íslensk orka ehf	26.9%	44.7	1.1
Enex hf	14.5%	15.9	42.2
Netorka hf	15.7%	5.2	9.0
Hecla SAS	30.0%	EUR 0.03	2.5
Sipenco GmbH	25.0%	CHF 0.06	3.4
			330.2
Reserve			( 137.0 )
Written down value			193.2

## OWNERS' EQUITY

6 The capital account consists of the following (ISK million):

	<i>According to financial statements</i>	<i>At prices as of year-end</i>
Balance at January 1, 2002	37,696	34,784
Cash dividend	( 321 )	( 308 )
Revaluation of assets	( 9,749 )	-
Gain on net monetary position	6,624	-
Net profit	5,729	5,503
	39,979	39,979

Based on the partnership agreement dated 1981 with reference to subsequent amendments to that agreement, the capital contributions amounted to ISK 14 billion in terms of year-end prices in 1995. The capital contributions restated to reflect changes in price levels to the end of 2002 amounted to ISK 18,938 million. The partnership agreement stipulates that dividends shall be 5.5% of the restated capital contributions and the balance for accrued dividends. Cash payments for dividends are based on certain operating indicators, i.e. profit before depreciation and interest charges on long-term debt. Undistributed accrued dividends amounted to ISK 6,526 million at the end of 2002 and the maximum amount that can be paid in the year 2003 based on the requirements of the partnership agreement is ISK 350 million. Accordingly, the owners' equity consists of the following balances (ISK million):

Restated capital contributions .....	18,938
Undistributed accrued dividends .....	6,526
	<u>25,464</u>
Retained earnings .....	14,515
	<u>39,979</u>

## OBLIGATIONS

- 7 The accrued pension obligation of the company, based on actuarial estimates, amounted to ISK 1,645 million at the end of 2002.

## LONG-TERM LIABILITIES

- 8 Long-term liabilities are translated at the rate of exchange prevailing at the end of the year. They are in the following currencies (million):

	<i>Foreign amount</i>	<i>ISK</i>	<i>%</i>	<i>Indexation, exchange-rate losses</i>
U.S.dollars .....	291.8	23,625	30.5%	7,313
Euro .....	333.8	28,354	36.7%	2,151
Icelandic króna .....	-	6,967	9.0%	( 144 )
Japanese yen .....	12,607.8	8,605	11.1%	1,271
Pounds sterling .....	67.3	8,775	11.4%	830
Swiss francs .....	16.6	969	1.3%	56
Norwegian kroner .....	0	0	0.0%	( 22 )
		<u>77,295</u>	<u>100.0%</u>	<u>11,455</u>
Current maturities of long-term liabilities .....		<u>8,439</u>		
		<u>68,856</u>		

The nominal interest rates on outstanding debt are from 0% to 14.5%. The average nominal interest charges were 2.5% for the year 2002 as compared with 5.3% for 2001.

The owners of Landsvirkjun provide a guarantee of collection on the long-term liabilities of the company.

- 9 The following is a maturity schedule as per loan agreements for long-term debt over the next five years:

2003 .....	8,439
2004 .....	8,517
2005 .....	4,210
2006 .....	12,901
2007 .....	868
Síðar .....	42,360

This payment schedule will change through refinancing measures in accordance with the company's policy of retirement of long-term debt.

## STATEMENT OF CASH FLOWS

10 Cash flow from operating activities is a good indicator of the company's ability to repay its liabilities. The statement of cash flows is particularly useful when comparative figures for several years are presented. For this purpose the following table shows the cash flows from operating activities for the last four years (ISK million):

	2002	2001	2000	1999
Net profit (loss) . . . . .	5,729	( 1,839 )	( 1,366 )	1,924
Reconciling adjustments:				
Depreciation . . . . .	5,261	5,487	4,562	3,812
Exchange rate adjustments net . . . . .	( 4,817 )	1,413	521	( 1,798 )
Working capital provided by operations	6,173	5,061	3,717	3,938
Changes in components of working capital				
Decrease (increase) in current assets . . . . .	176	37	( 390 )	330
Increase (decrease) in current liabilities	83	444	424	( 365 )
Cash provided by operation . . . . .	6,432	5,542	3,751	3,903
Cash provided by operation as a percentage of total liabilities	8.3%	6.1%	5.0%	6.0%

## OTHER ITEMS

11 Semiannual summary

The company's operation is specified as follows semiannually:

	1.1.-30.6.	1.7.-31.12.	1.1.-31.12.
Operating revenues . . . . .	7,150	6,427	13,577
Operating expenses excluding depreciation . . . . .	2,174	2,257	4,431
Depreciation . . . . .	2,668	2,513	5,181
Financial costs . . . . .	-2,164	400	-1,764
	2,678	5,170	7,848
Net profit	4,472	1,257	5,729
Net cash provided by operating activities	3,793	2,639	6,432

12 The company paid ISK 2,258 million in salaries to employees, which consist of the following:

Energy . . . . .	810
Transmission . . . . .	393
Engineering and construction . . . . .	193
Corporate office . . . . .	88
Finance, information and human resources . . . . .	231
Marketing agency . . . . .	29
	1,744
Related expenses . . . . .	278
Pension payments . . . . .	236
	2,258

Remuneration to the board of directors and executive management amounted to ISK 83 million.

The company had 292 permanent and 88 temporary employees in 2002.

13 General administrative expenses consist of the following:

Corporate office . . . . .	246
Finance . . . . .	193
Human resources . . . . .	62
Information . . . . .	130
Pension payments . . . . .	230
Provision for shares . . . . .	75
Marketing unit . . . . .	45
Common costs . . . . .	94
	1,075

14 Landsvirkjun has made derivatives to hedge risk in connection with sales to power-intensive industries in the year 2003. As those contracts are classified as hedging they are not recorded at market value in the accounts. At year-end the market value of the contracts was ISK 194 million. The contracts are:

	Currency	Receivables	Obligations
Forward contracts . . . . .	ISK	227.1	
Forward contracts . . . . .	USD		2.0



*Gilsbakki, Hvitársíða, west Iceland*



*Borgarnes, west Iceland, Langes houses*



*Pharmacy in Reykjavik*



The colour photographs in this annual report are of houses owned and preserved by the Department of Historic Buildings of the National Museum of Iceland (photographer: Haraldur Helgason). The collection of historic buildings, which consists of over forty structures, features excellent examples of the nation's architectural styles in the last few centuries. The black and white photographs were taken by Sigfús Eymundsson (1837-1911) and are also owned by the National Museum. Landsvirkjun thanks the National Museum and its employees for their assistance.

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**Landsvirkjun** • Háaleitisbraut 68 • 103 Reykjavík  
Tel: (354) 515 9000 • Fax: (354) 515 9007  
E-mail: [landsvirkjun@lv.is](mailto:landsvirkjun@lv.is) • Website: [www.landsvirkjun.com](http://www.landsvirkjun.com)