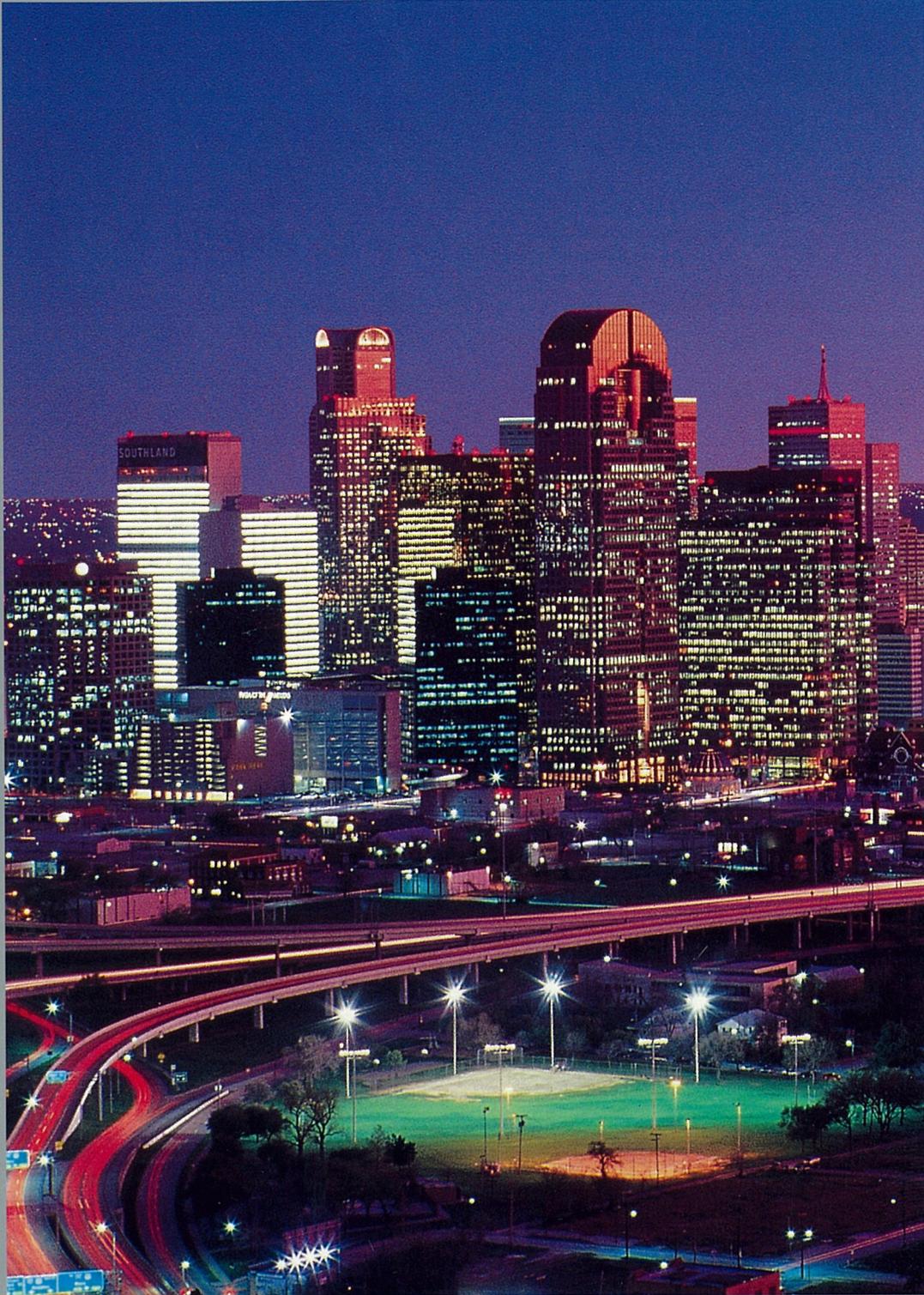


ENERGY RESOURCES OF AUSTRALIA LTD

A.C.N.008 550 865



ANNUAL REPORT  
1991



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## N O T I C E O F M E E T I N G

This report will be presented at the 1991 Annual General Meeting of the members of Energy Resources of Australia Ltd in the Fort Macquarie Room of the Inter-Continental Hotel, 117 Macquarie Street Sydney at 10.00am on Thursday 17 October 1991.

A Notice of Meeting and Proxy Form is enclosed.

## C O R P O R A T E O B J E C T I V E S

ERA's principal objective is to increase the wealth of its shareholders through a persistent commitment to:

- ▷ deliver a quality product on time and at competitive prices;
- ▷ maintain ore reserves at the level necessary to attract long-term contracts at premium prices;
- ▷ employ modern technology and management practices;
- ▷ maintain stringent environmental standards;
- ▷ retain a highly skilled and motivated workforce; and
- ▷ set high standards for employee safety.

In pursuit of these commitments during the 1991 financial year, ERA:

- ▷ earned an after tax profit of \$74.1 million and a return on shareholders' equity of 14.7 per cent;
- ▷ settled its long-running dispute with the Australian Taxation Office. This resulted in a writeback of \$63.0 million provided in previous years;
- ▷ paid a five cent interim dividend and declared a five cent final dividend;
- ▷ won a four-star safety rating from the National Safety Council of Australia; and
- ▷ *post balance date*, acquired Jabiluka – the second largest uranium resource known in the western world.

## F I N A N C I A L H I G H L I G H T S

Year ended 30 June	1991	1990	1989	1988	1987
Result in \$000					
Sales Revenue	210 407	206 898	177 516	251 300	234 263
Profit before tax	101 604	125 830	80 630	131 055	108 085
Income Tax Expense	27 554	68 328	42 876	67 985	49 197
Profit after tax	74 050	57 502	37 754	63 070	58 888
Total Assets	827 756	847 491	882 081	914 622	953 479
Issued Capital	410 000	410 000	410 000	410 000	410 000
Capital and Reserves	545 169	464 793	448 291	546 939	500 164
Earnings per share, cents	18.1	14.0	9.2	15.4	14.4
Return on Shareholders' Equity, %	14.7	12.6	7.6	12.0	11.9
Dividend per share, cents	10.0	10.0	15.0	10.0	10.0

# C O M P A N Y P R O F I L E

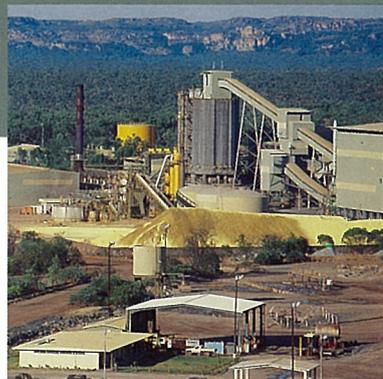
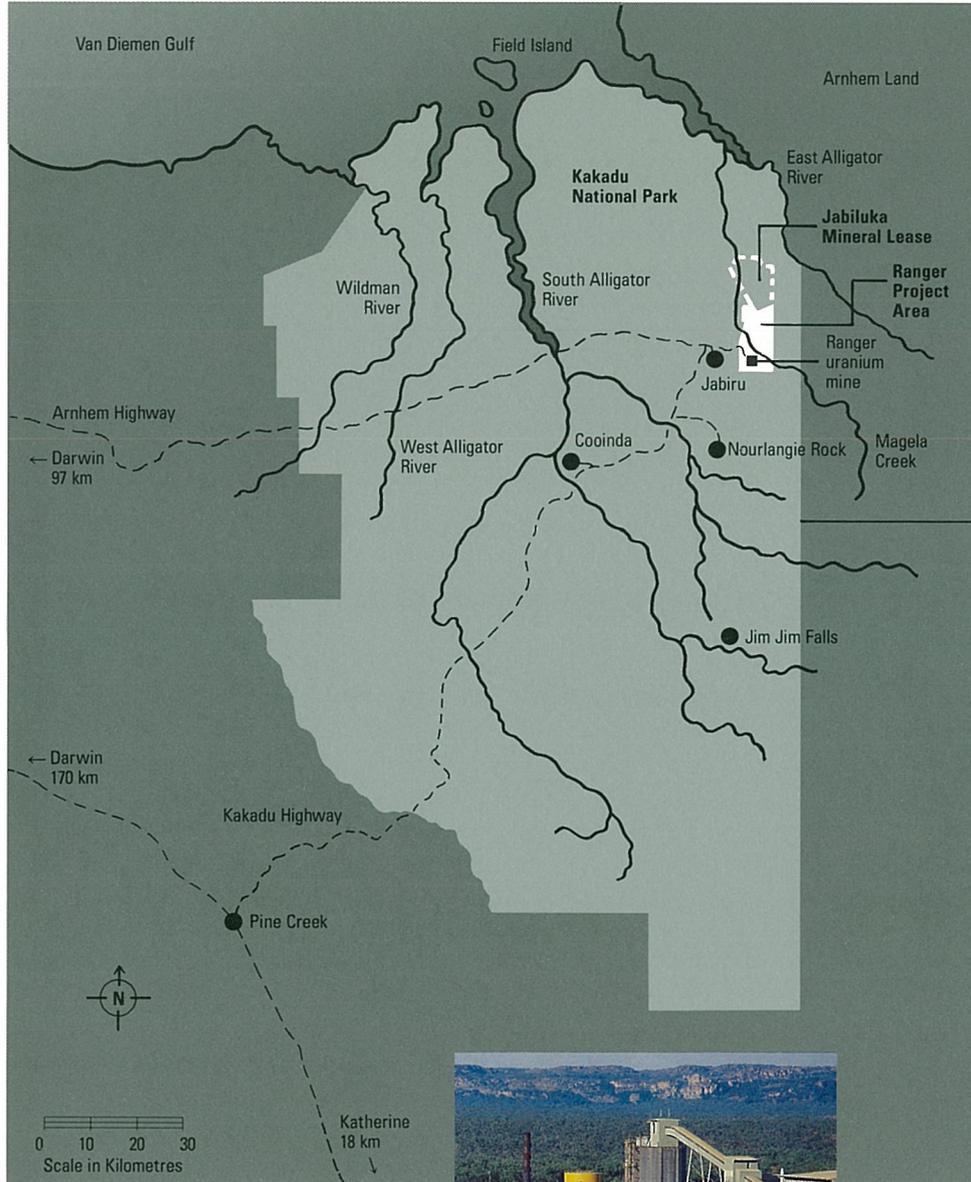
Energy Resources of Australia Ltd (ERA) is the fourth largest uranium producer in the world through its ownership of the Ranger mine in the Northern Territory.

With the acquisition in August 1991 of the neighbouring Jabiluka deposit, the Company is well placed to increase its market share and improve its competitive position in the years ahead.

ERA is a subsidiary of North Broken Hill Peko Limited, a diversified resource company, and has strong shareholder-customer links with utilities in Japan, Germany, France and Sweden.

Ranger's uranium is also sold to nuclear utilities in Korea, Belgium and the United States.

Front cover: Energy to drive a modern metropolis with a diversity of power needs. Uranium provides one of the safest, cleanest, most efficient methods of electricity generation. ERA is one of the world's largest and most cost-effective uranium producers and one of Australia's major export earners.



ERA's Ranger uranium mine looking towards the Arnhem Land sandstone escarpment. Ranger occupies four square kilometres of a 79 square kilometre lease.

Power at our fingertips. By harnessing electrical energy, mankind has the capacity to do a power of good. A plentiful supply of uranium throughout the world assures future generations of low-cost electricity for many years and for other beneficial uses to mankind. Today 17 per cent of the world's electricity is powered by uranium.



## C H A I R M A N ' S R E V I E W

ERA has completed a successful year in a challenging market. Profit after tax, at \$74.1 million, was a record and includes a \$15.7 million writeback of tax provisions following settlement of a long-running dispute with the Australian Taxation Office. A further writeback of tax as an extraordinary item lifted profit after tax and extraordinary items to \$121.4 million.

The tax dispute was settled by a negotiated payment to the ATO of \$30.0 million. This brings to an end Federal Court proceedings between the parties. It also confirms ERA's position as one of the highest taxed companies in Australia. Since inception ERA has provided \$485.9 million in income tax, an effective tax rate of 47 per cent.

Despite the record profit, the uranium market remains depressed. The uranium spot price – the industry indicator – reached US\$11.70 per pound in July 1990 then retreated under heavy selling to a new historic low of US\$8.35 per pound in October 1990. Since then it has moved within a narrow range between US\$8.35 and US\$9.80 per pound U<sub>3</sub>O<sub>8</sub>, reflecting the ready availability of spot supplies from excess stocks.

The spot price is below the production costs of many mines and continues to exert downward pressure on ERA's long-term contracts. Ranger sales were down and average prices were lower than last year. A less favourable US dollar exchange rate also affected sales revenue.

In spite of the difficult market conditions, ERA secured contracts with two further Japanese utilities and concluded price settlements with five of the six shareholder-customers for deliveries beyond 1992. Negotiations with the remaining shareholder-customer will be completed shortly. ERA's Japanese shareholder-customers have renewed their equity-related contracts but a combination of low spot prices and continuing high inventories have forced the adoption of non-equity contracts by ERA's Swedish and German shareholder-customers.

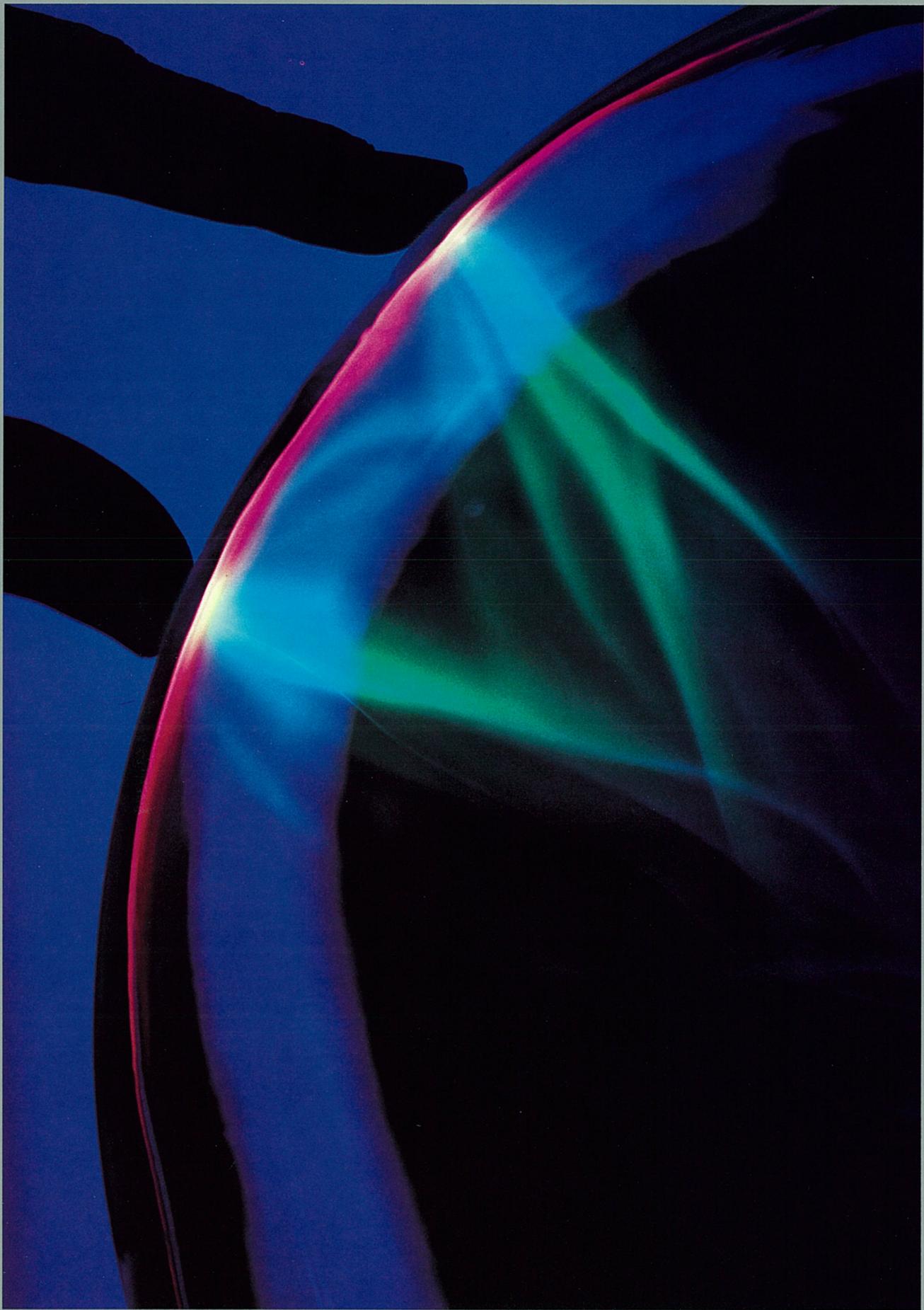
ERA has completed a comprehensive supply and demand analysis of the uranium market including the recent effect of uranium from the USSR and China. The analysis confirms the industry view that excess inventory which overhangs the market will be drawn down in the next four to five years to a more commercial level. In these circumstances a strengthening of prices is likely – as is an increase in demand for mine production.

Ranger's excellent safety record was recognised this year when the National Safety Council of Australia awarded a four-star safety rating. The operation as a whole continues to operate efficiently. The priorities remain increased productivity through job restructuring and skills extension.

The crowning highlight to report was the \$125 million acquisition of the Jabiluka uranium resource adjacent to Ranger on 21 August 1991. Jabiluka is the world's largest known undeveloped uranium reserve. The acquisition fulfils ERA's strategy to secure world-class reserves for the long-term benefit of the Company. ERA is now firmly positioned to remain a major world supplier of uranium concentrates for decades to come.

As in all previous years, the 1991 result is a reflection of the individual efforts of all employees. I express my sincere appreciation for another commendable contribution.

AL Morokoff, AO  
Chairman



**M I N I N G** Mining in No. 1 Pit pushed back the north and south walls to their final limits on 3 Bench and 5 Bench respectively. The pit floor remained at 10 Bench, about 110 metres below the original surface. The life-of-mine plan involves deepening the pit a further 60 metres over the next three years.

Some 2.785 million tonnes of ore and waste were mined during the year. Production statistics are detailed in Table 1. The lower than usual mining rate was the result of deploying the mine crew to raise the wall of the tailings dam.

This fourth lift of the tailings dam embankment was completed in November 1990, prior to the onset of the wet season. The use of the mine workforce for this task rather than a contractor was not only cost-effective but provided a worthwhile extension of operating skills. The lift of 3.5 metres involved the placement to specification of 1.1 million tonnes of construction material, bringing the height of the embankment to 44.5 metres RL.

The project was completed on time and under budget at a final cost of \$10.8 million.

At year end, the reserves remaining in No. 1 Orebody, either in surface stockpiles or in the pit, totalled 27 400 tonnes U<sub>3</sub>O<sub>8</sub>, sufficient to maintain the current level of production for at least seven years.

No. 3 Orebody was remodelled and the reserves recalculated from first principles in preparation for a final feasibility study covering all aspects of the development of this deposit. That study is currently in progress and scheduled for completion by December 1991.

**TABLE 1: Mining** Million tonnes

Year ended 30 June	1991	1990	1989	1988	1987*
Ore mined (cut off grade 0.10% U <sub>3</sub> O <sub>8</sub> )					
– to process plant	0.222	0.468	0.477	0.158	0.461
– to stockpile	0.439	0.617	1.923	1.972	1.253
– Total	0.661	1.085	2.400	2.130	1.714
Low grade mineralization to stockpile (cut off grade 0.023% U <sub>3</sub> O <sub>8</sub> )	0.569	0.862	1.735	2.840	0.920
Construction material	0.553	1.203	0.440	0.240	0.290
Waste material	1.002	0.957	1.399	1.160	2.120
Total material mined	2.785	4.107	5.974	6.370	5.044

\*ore mined cut off grade 0.075% U<sub>3</sub>O<sub>8</sub>

**TABLE 2: Ranger Ore Reserves** Cut Off Grade 0.10% U<sub>3</sub>O<sub>8</sub>

Year ended 30 June	1991			1990		
	Ore Million tonnes	Grade % U <sub>3</sub> O <sub>8</sub>	Contained U <sub>3</sub> O <sub>8</sub> tonnes	Ore Million tonnes	Grade % U <sub>3</sub> O <sub>8</sub>	Contained U <sub>3</sub> O <sub>8</sub> tonnes
<b>Ranger No. 1</b>						
Stockpile	4.835	0.31	15 100	5.262	0.30	15 800
Proven	4.561	0.27	12 300	4.850	0.28	13 400
Total	9.396	0.29	27 400	10.112	0.29	29 200
<b>Ranger No. 3</b>						
Proven	17.590	0.31	54 800	20.303	0.26	52 800
Probable	0.280	0.23	600	–	–	–
Total	17.870	0.31	55 400	20.303	0.26	52 800

Reserves comprise ore within planned pit designs which are subject to continuing optimization.

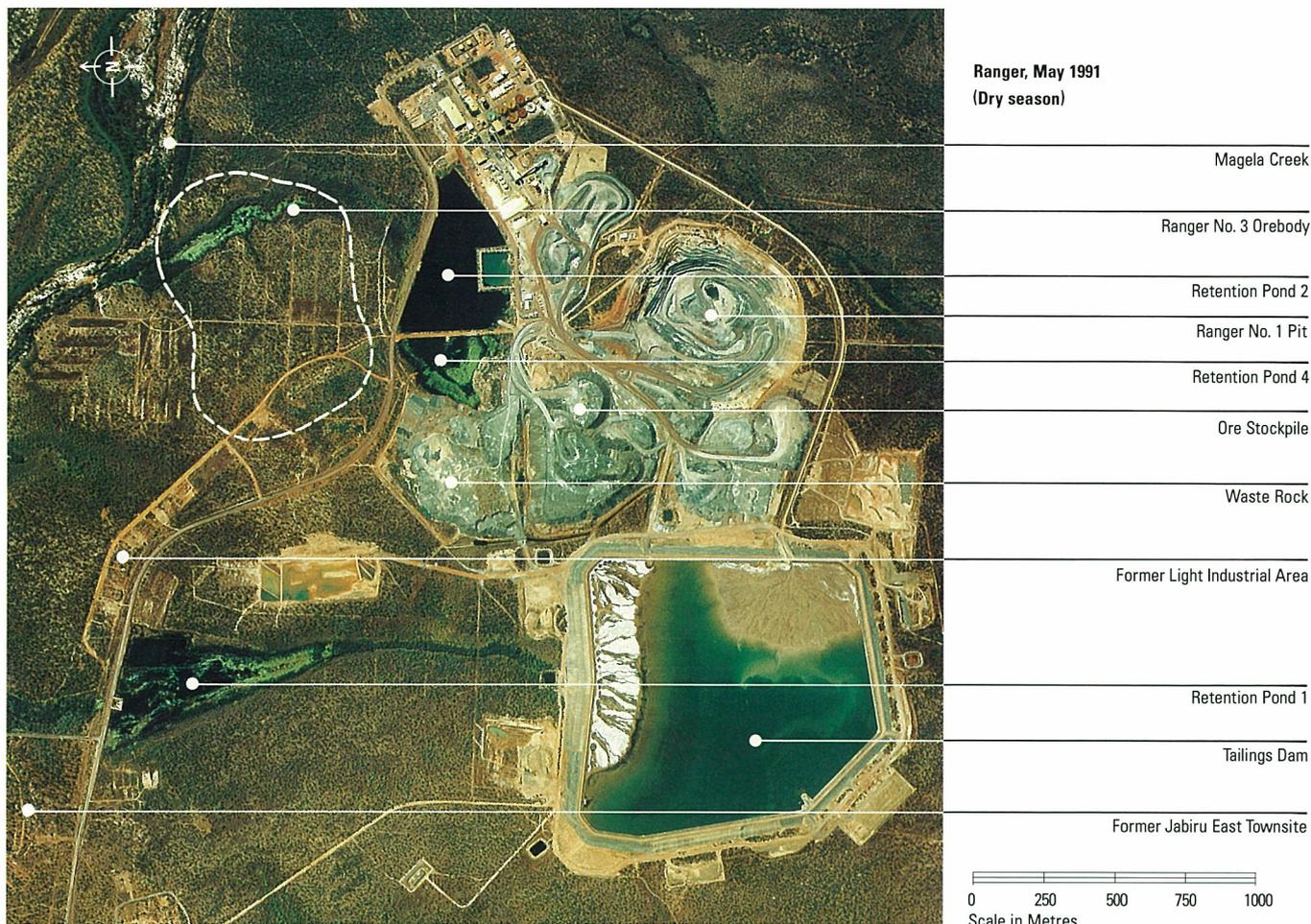
The acquisition of Jabiluka, situated about 19 kilometres north of Ranger's process plant, introduces the possibility (subject to all necessary approvals) of developing Jabiluka as ERA's next mine. Work will soon commence on a fundamental review of the Jabiluka data.

Studies to date by ERA have focused on the major Jabiluka No. 2 Orebody. Using the same cut off grade as that employed at Ranger, 0.10 per cent U<sub>3</sub>O<sub>8</sub>, the total measured, indicated and inferred geological resource in Jabiluka No. 2 is 32.440 million tonnes at 0.44 per cent U<sub>3</sub>O<sub>8</sub> for 143 300 tonnes contained U<sub>3</sub>O<sub>8</sub>.

Past drilling has not fully defined the orebody, nor has the cut off grade been validated by detailed cost studies.

## P R O C E S S I N G

The overall performance of the process plant varied little from the previous year (Table 4). Production of 2 908 tonnes U<sub>3</sub>O<sub>8</sub> resulted from milling 1.090 million tonnes of ore. At 0.295 per cent U<sub>3</sub>O<sub>8</sub>, the head grade was lower than in previous years but marginally above the average grade of the mineable reserves remaining in the stockpiles and in No. 1 Pit.



The mill rate was once again maintained above 160 tonnes per hour, 14 per cent above the design capacity of the plant, but now the accepted norm. Following the practice in the previous year, mill feed was a blend of primary ore drawn directly from the pit or from stockpile and laterite ore. The previous difficulties encountered in handling laterite ore have been mastered and this material is now routinely processed during the second half of the dry season.

Reagent costs are a major part of the cost of production at Ranger. Considerable efforts are being made to reduce costs either through alternative sourcing or the use of different reagents. During the year, difficulties with the continued supply of lime for tailings neutralization led to its replacement by cement, at a significant saving in cost.

**TABLE 3: Ranger Mineral Resources** Cut Off Grade 0.10% U<sub>3</sub>O<sub>8</sub>

Year ended 30 June	1991			1990		
	Ore Million tonnes	Grade % U <sub>3</sub> O <sub>8</sub>	Contained U <sub>3</sub> O <sub>8</sub> tonnes	Ore Million tonnes	Grade % U <sub>3</sub> O <sub>8</sub>	Contained U <sub>3</sub> O <sub>8</sub> tonnes
<b>Ranger No. 3</b>						
Measured	3.5	0.23	8 000	4.2	0.24	10 000
Indicated	1.1	0.22	2 400	3.1	0.27	8 500
Total	4.6	0.23	10 400	7.3	0.25	18 500

Resources comprise mineralization outside planned pit designs to which no value can presently be attributed.

Tables 2 and 3 were prepared by a Corporate Member of the Australian Institute of Mining and Metallurgy who has a minimum of five years experience in mineral exploration. The member concerned has consented to the inclusion of the tables in the 1991 Annual Report of Energy Resources of Australia Ltd.

**TABLE 4: Processing**

Year ended 30 June	1991	1990	1989	1988	1987
Ore milled, million tonnes					
– from mine	0.222	0.468	0.477	0.158	0.461
– from stockpile	0.868	0.621	0.498	0.624	0.399
– Total	1.090	1.089	0.975	0.782	0.860
Mill head grade, per cent U <sub>3</sub> O <sub>8</sub>	0.295	0.314	0.408	0.423	0.379
Process rate, tonnes/hour	160.4	162.8	168.9	161.2	145.5
Recovery, per cent	90.78	90.10	91.06	91.95	93.05
Total production, tonnes U <sub>3</sub> O <sub>8</sub>	2908.3	3084.0	3595.5	3041.5	3076.2
Product grade, per cent U <sub>3</sub> O <sub>8</sub>	98.86	99.05	99.16	99.22	99.26

**E** N V I R O N M E N T ERA maintains stringent environmental standards. Since operations began in 1980 Ranger has had no adverse impact on the surrounding environment.

## W A T E R M A N A G E M E N T

The flexibility inherent in Ranger's water management system was thoroughly proven during the year. Low rainfall in the 1989/90 wet season resulted in an insufficient accumulation of process water for the 1990 dry season. To meet the shortfall, water was pumped from Magela Creek and the Brockman Borefield. At the same time, overall storage management was directed at minimizing evaporation. Additional supplies for dust suppression and construction during the tailings dam lift were drawn from outside Ranger's Restricted Release Zone (RRZ).

Although only 1 374 mm of rain fell in the 1990/91 wet season, significant runoff occurred during periods of intense precipitation late in the season. Retention Pond 2 (RP2) was filled to its maximum operating level, which was held without the need for diversion or release.

Ranger has received authorization to irrigate RRZ water throughout the year subject to rainfall conditions. This will further improve the flexibility of water management during the wet season. Three operational releases were made from RP4 to Magela Creek between February and April 1991. These releases were successfully discharged through the Djalkmara Creek wetland system and were thoroughly monitored. There was no adverse impact on the environment.

Hydrological studies were undertaken during the year to determine groundwater conditions in the vicinity of No. 3 Orebody, together with a flood analysis to provide data for levee bank design.

## R E H A B I L I T A T I O N

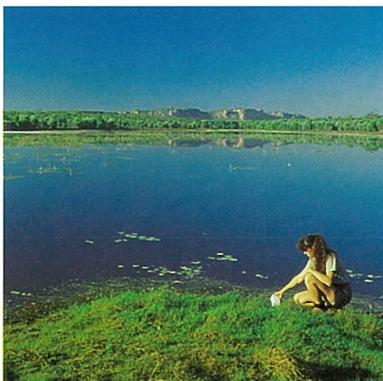
Revegetation of the Ranger Light Industrial Area was completed during the year. This concludes a three year program which has involved the removal of infrastructure and progressive revegetation of disturbed areas in the former construction township of Jabiru East and the associated Light Industrial Area.

Other rehabilitation work undertaken during the year included the recontouring of a five hectare area on the northern waste-rock dump in line with the final landform, ready for revegetation during the 1991/92 wet season.

## R E S E A R C H

Wetland filtration investigations continued to provide valuable insights into the natural processes which operate to remove contaminants from water.

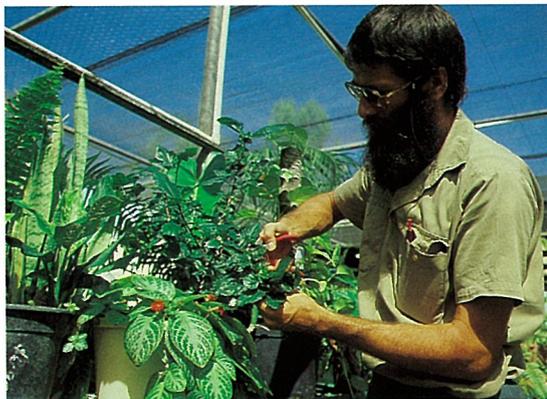
Research into seepage from the tailings dam and the measurement of water quality in bores located north of the tailings dam has validated the seepage model. Further development of the model will allow long-term prediction of solute movement from the dam.



**Ranger's Environment**  
Department regularly monitors the water quality in retention ponds, billabongs and creeks across the lease. Rainfall this year was 1 374mm, below the average 1 400mm for a wet season.



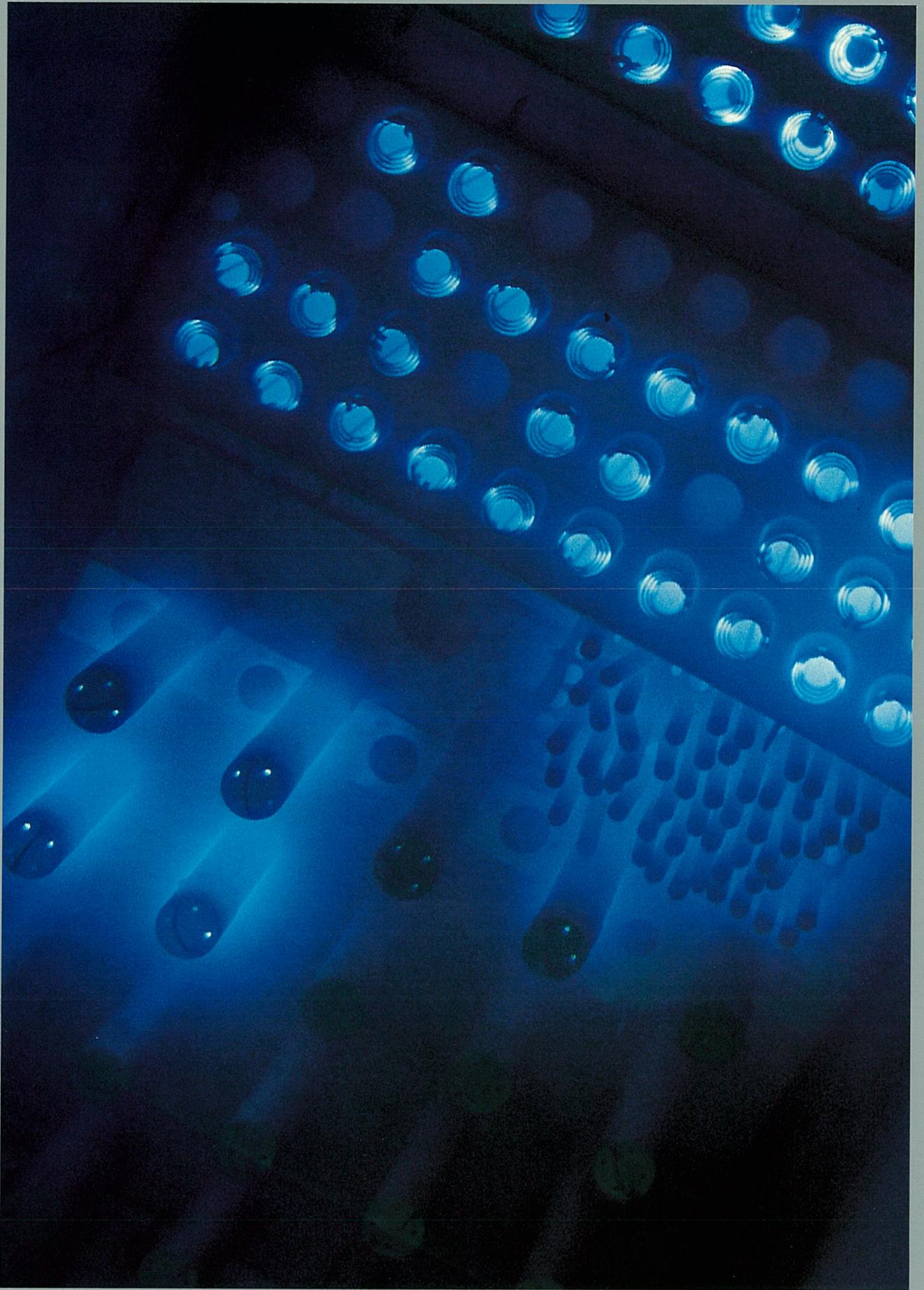
Georgetown billabong adjacent to the Ranger mine shows the signs of regeneration after removal of buffalo by Ranger's Environment Department.



Ranger's nursery has begun to receive seeds collected as part of a commercial venture by Traditional Owners. Approximately 20 hectares of land was rehabilitated in the last year.



*Nymphaea violacea*, one of the native wetland species studied at Ranger for its ability to polish water runoff from waste-rock dumps.



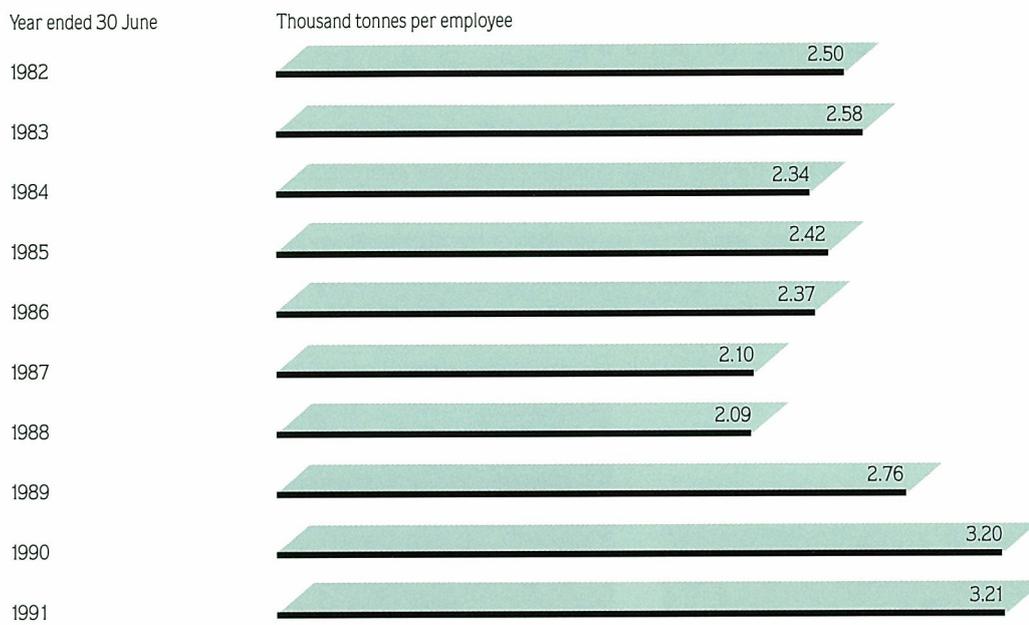
**S A F E T Y** Hard work and a commitment to safe working by all employees at Ranger was rewarded this year by a four-star safety rating under the National Safety Council of Australia (NSCA) five-star rating program. Ranger has been involved with the NSCA Five-Star Health and Safety Management System for over four years and the four-star rating places the mine among the safest industrial sites in Australia.

The average radiation dose to designated employees, those who work in the mine and mill, was 6.0 milli Sieverts (mSv) while the average radiation dose to the most exposed group of non-designated employees was 2.5 mSv. The statutory annual radiation limit to designated and non-designated employees is 50 mSv and 5 mSv respectively.

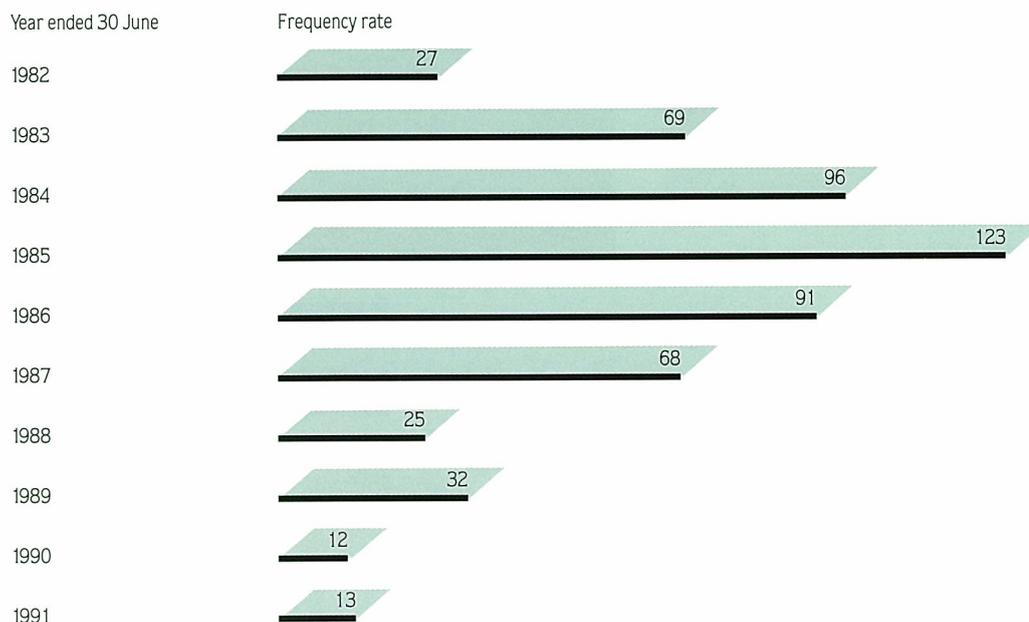
Pooling ideas for safety's sake. As a leader in uranium production, ERA recognises it has a responsibility to ensure the safe mining and use of uranium in the nuclear fuel cycle, including safe storage and final disposal of spent fuel. Notwithstanding that pool storage is an intrinsically safe method for intermediate storage, the Company is investigating long-term management options for spent fuel through its participation in the SYNROC study group.



**Ore Milled per Employee**



**Lost Time Injury Frequency Rate**



**P E O P L E** Employee training and development focused on skills extension aimed at developing a more proficient and productive workforce. A total of 279 employees participated in some form of training this year. The status of certain training modules will be enhanced with the anticipated recognition of Ranger by the Department of Technical and Further Education as a private provider of skill and personal development training.

**I N D U S T R I A L R E L A T I O N S**

There was a one day stoppage at Ranger during the year. Time lost as a result of industrial matters for the year was 0.65 per cent of scheduled man hours and, apart from the one day stoppage, this result was due mainly to report back meetings following various award restructuring negotiations.

Negotiations continue with the federal officials from two unions over changes to the award being sought by the Company.

**A B O R I G I N A L L I A I S O N**

Ensuring that Aboriginal Traditional Owners are well informed of events related to the Ranger project remains the primary focus of the Aboriginal Liaison Section. Increased visits by Traditional Owners to Ranger over the past twelve months reflects their awareness and interest particularly in the environmental management initiatives of the Company.

The past year has seen further stabilization of the Aboriginal workforce; employee turnover has fallen and two more Aboriginal trainees have gained permanent appointments with the Company. Two-thirds of Aboriginal trainees are now engaged in tertiary or further education studies.



**Operators at Ranger perform a variety of vital tasks: regular checks of valves and meters ensures effective on-site movement of 650 thousand cubic metres of process water a year.**



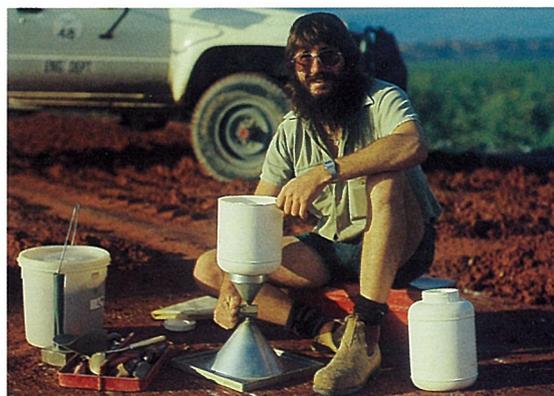
**Co-operation and communication between Ranger's different departments has been essential to meet mine production plans and environmental and safety goals.**

## PUBLIC AFFAIRS

Ranger retained its place as a major tourist attraction in the Kakadu region with 25 000 tourists visiting the mine in the 1990 calendar year. Amongst the Company's visitors were 23 school groups. In recognition of this interest, the Company is developing in conjunction with the Northern Territory's Science Teachers Association a more structured visit for senior students to demonstrate the various applications of science at Ranger.

**TABLE 5: ERA Value Added Statement**

Year ended 30 June	1991		1990	
	\$000	%	\$000	%
<b>VALUE ADDED</b>				
<b>(EXCLUDING INTEREST RECEIVED)</b>				
Sales & Other Revenue	217 603	100	222 663	100
Less Cost of Materials & Services	53 239	24	51 551	23
<b>Total Value Created</b>	<b>164 364</b>	<b>76</b>	<b>171 112</b>	<b>77</b>
<b>DISTRIBUTION</b>				
<b>TO EMPLOYEES:</b>				
Wages & salaries, pension & provident funds, LSL & Director's fees after deducting personal income tax	11 057	7	11 059	6
<b>TO GOVERNMENT:</b>				
Company income tax	43 219	26	56 823	33
Export levy	3 443	2	3 894	2
Personal income tax in respect of employees	4 296	3	4 153	3
Royalties to Aboriginal Trust Benefit Account	8 198	5	8 674	5
Royalties to NT Government	2 352	1	2 493	2
Other	3 041	2	2 157	1
	<b>64 549</b>	<b>39</b>	<b>78 194</b>	<b>46</b>
<b>TO PROVIDERS OF EQUITY &amp; LOAN CAPITAL</b>				
Interest paid less interest received	395	-	4 932	3
Dividends to shareholders	41 000	25	41 000	24
	<b>41 395</b>	<b>25</b>	<b>45 932</b>	<b>27</b>
<b>REINVESTED IN THE BUSINESS:</b>				
Depreciation	29 978	18	29 571	17
Profit retained from operations	17 385	11	6 356	4
	<b>47 363</b>	<b>29</b>	<b>35 927</b>	<b>21</b>
<b>Total Value Distributed</b>	<b>164 364</b>	<b>100</b>	<b>171 112</b>	<b>100</b>



Ranger is an operation that requires people with a diverse range of skills – from soil technicians to accountants. A total of 312 people were employed at Ranger in the last year.



**M A R K E T I N G** Sales of Ranger material totalled 2 599 tonnes U<sub>3</sub>O<sub>8</sub>, down 4.3 per cent on sales in 1990. In addition, 802 tonnes U<sub>3</sub>O<sub>8</sub> were purchased from the spot market to fulfil US contract requirements.

In a difficult market ERA was successful in securing two new contracts with Japanese utilities, one with Chubu Electric Power Company for delivery of 1 360 tonnes U<sub>3</sub>O<sub>8</sub> over eight years commencing 1994.

ERA's contract with the Belgian utility, Synatom, will terminate on 31 December 1991.

The three Japanese shareholder-customers, Kansai Electric Power Company, Kyushu Electric Power Company and Shikoku Electric Power Company, have agreed on a revised price to apply to their contracts from January 1992 to January 1994. These utilities purchase 907 tonnes of Ranger U<sub>3</sub>O<sub>8</sub> per year under equity-related contracts providing valuable support for the Company in a difficult market.

It was not possible to continue similar equity-related contracts with ERA's remaining B-class shareholder-customers, OKG Aktiebolag of Sweden and Urangesellschaft mbH and Interuran GmbH of Germany. Alternative arrangements have been negotiated in their place in the case of the first two utilities and negotiations are still in progress with the third.

The termination of OKG's equity-related contract has increased deliveries under a previous second contract to 200 tonnes U<sub>3</sub>O<sub>8</sub> per year from 1993, with further negotiation to take place in 1993 with respect to the price for deliveries in 1995 and 1996. The new arrangement with OKG permits ERA to supply non-Ranger material at the Company's discretion. The arrangement with Urangesellschaft is an option contract covering the supply of up to 4 082 tonnes U<sub>3</sub>O<sub>8</sub> over fifteen years, deliveries being triggered once the spot price exceeds a negotiated floor.

Discussions are to take place later in 1991 which may lead to the eventual resumption of deliveries with the remaining member of the group of original shareholder-customers, Rheinisch-Westfaelisches Elektrizitaetswerk AG (RWE). RWE terminated its contract with effect from 31 December 1990 due to high inventory levels.

ERA's contract with Electricité de France, whose associate, Cogema, became an equity holder in 1987, was not due for review this year, nor were ERA's contracts with Korean and US utilities. Pricing provisions were however renegotiated in these contracts to reflect the existing market conditions and the relaxation of the Australian Government's pricing policy.

In the case of Electricité de France, the tonnage off-take will increase from 136 to 272 tonnes U<sub>3</sub>O<sub>8</sub> per year and the Floor Price will be removed. Prices will be determined by the long-term pricing formula in the contract. The Floor Price was also removed from the second Korean contract, leaving in place similar formula pricing arrangements. The tonnage off-take for the second contract was increased from 227 to 272 tonnes U<sub>3</sub>O<sub>8</sub> per year. A long-term price was agreed for the first Korean contract involving deliveries of 227 tonnes U<sub>3</sub>O<sub>8</sub> per year.

The successful price settlements at a time of such adverse market conditions demonstrates the strong ties which exist between ERA and its long-term customers.

The right connections. The electrical power needs of the world continue to grow but many highly industrialized nations lack indigenous fuel resources to meet their needs. They must rely on suppliers like ERA to deliver quality uranium at a competitive price. ERA has put together a network of customers who are committed to the use of nuclear power.



Year ended 30 June	1991	1990	1989	1988	1987
Production	2908.3	3084.0	3595.5	3041.5	3076.2
Sales: Ranger concentrates	2598.5	2716.1	2633.4	3274.0	3048.0
Sales: non-Ranger concentrates	802.3	47.6	—	—	—
Total sales	3 400.8	2 763.7	2 633.4	3 274.0	3 048.0

Grasping opportunities.

ERA has reduced its gearing ratio to one of its lowest ever levels, giving it the borrowing capacity to grasp worthwhile business opportunities as they emerge. Meanwhile, the many utilities throughout the world, to which the Company currently supplies its uranium concentrate, are bringing electricity to a wide range of uses – helping others to capitalize on their own opportunities.



**F I N A N C E** Profit after tax of \$74.1 million was a record for ERA. Profit after tax and extraordinary items was \$121.4 million, which restored retained earnings to \$135.2 million.

The after tax results were heavily influenced by the settlement of the long-standing dispute with the Australian Taxation Office (ATO). The principal item in dispute was the treatment of losses incurred on certain back-to-back currency hedges between 1982 and 1990. The cumulative provision for tax in dispute rose to \$93.0 million by 30 June 1990. Settlement was reached by the payment of \$30.0 million to the ATO and brought an end to Federal Court proceedings between the parties. ERA withdrew a counter-claim for deductibility of \$125 million paid to the Commonwealth in 1980.

The writeback of \$63.0 million to the profit and loss account reflected the manner in which the provision was created and was apportioned as follows:

- ▷ \$15.7 million as an abnormal item;
- ▷ \$47.3 million as an extraordinary item.

Increased sales tonnages and revenue included higher sales of uranium concentrate sourced on the spot market to fulfil US deliveries. Sales of Ranger concentrates were 4.3 per cent below last year. The unit cost of Ranger concentrates rose 2.6 per cent.

Review of the rehabilitation program at Ranger led to a further refund of \$7.2 million to ERA from moneys accumulated in the Rehabilitation Trust Fund. The trust balance exceeds \$51 million and is sufficient to meet the cost of fully rehabilitating the Ranger Project Area.

During the year ERA contributed \$3.4 million to the Australian Government in the form of the \$1.30 per kilogram Uranium Export Levy. The levy is used to fund the research and monitoring role of the Office of the Supervising Scientist in the Alligator Rivers Region.

Debt stood at \$53.3 million at 30 June 1991 compared with \$66.5 million a year earlier. The Multi-Option Facility under which ERA had funded much of its borrowings since 1986 by the issue of Euronotes was cancelled. Australian corporate issues in general lost favour in Europe as a result of the spate of corporate failures. With borrowings at such a low level bank loans have proved a more satisfactory method of funding.

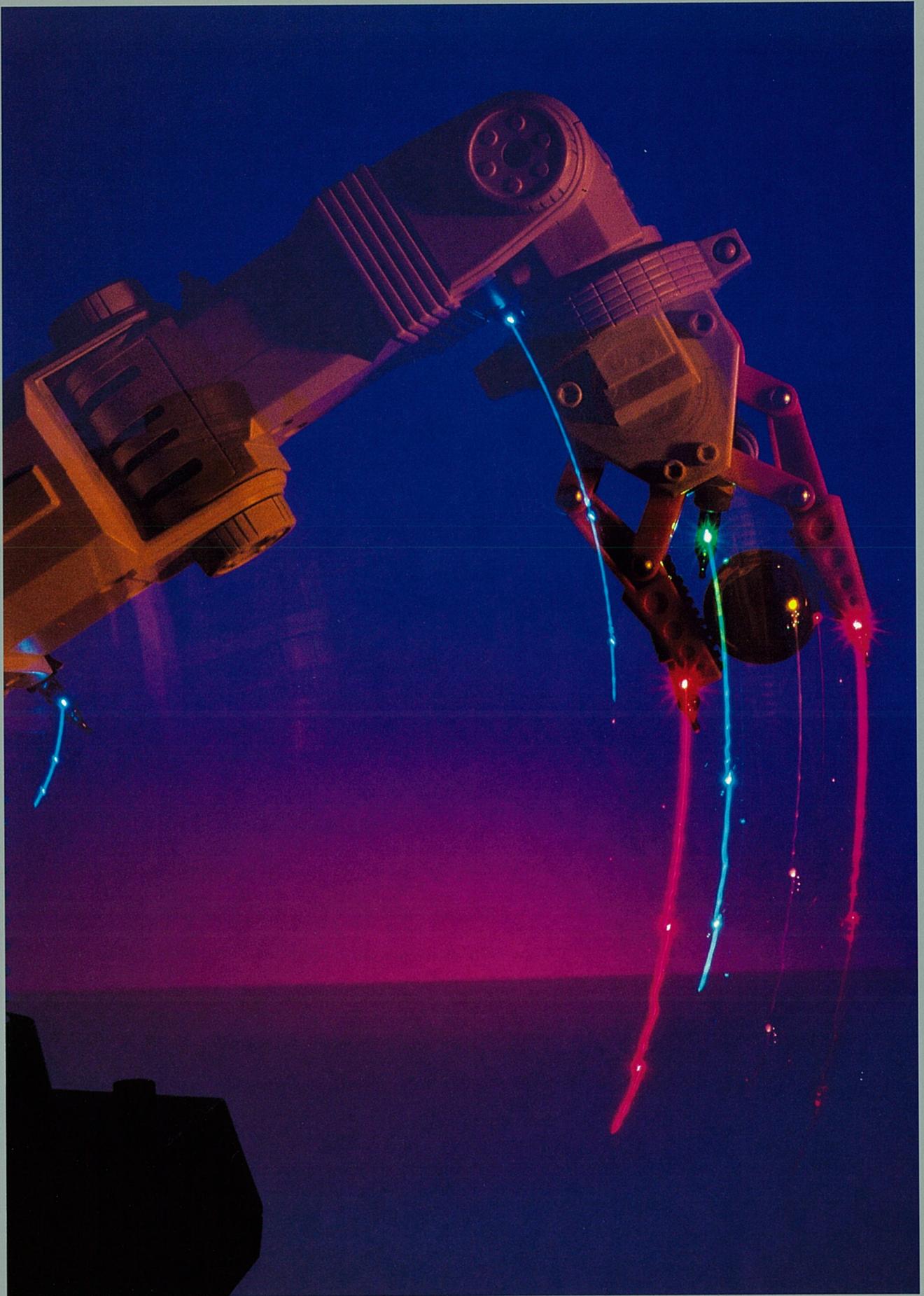
The \$A/\$US exchange rate averaged 0.7856 over the year. This was 2.1 per cent higher (more adverse) than the previous year. ERA conducts an active program to manage the foreign exchange risk and gains realised on hedging transactions largely offset this effect.

The cost of insuring the Company's assets has been held at a very competitive level. Since operations began at Ranger, ERA has placed a strong emphasis on risk management and Ranger now enjoys a 'highly protected risk' classification for insurance purposes.

## D I V I D E N D S

Last year's final dividend of five cents per share was paid on 30 November 1990 and an interim dividend of five cents per share was paid on 31 May 1991. The dividends, which were fully franked, totalled \$41.0 million.

Directors have declared a fully franked final dividend of five cents per share payable on 29 November 1991.

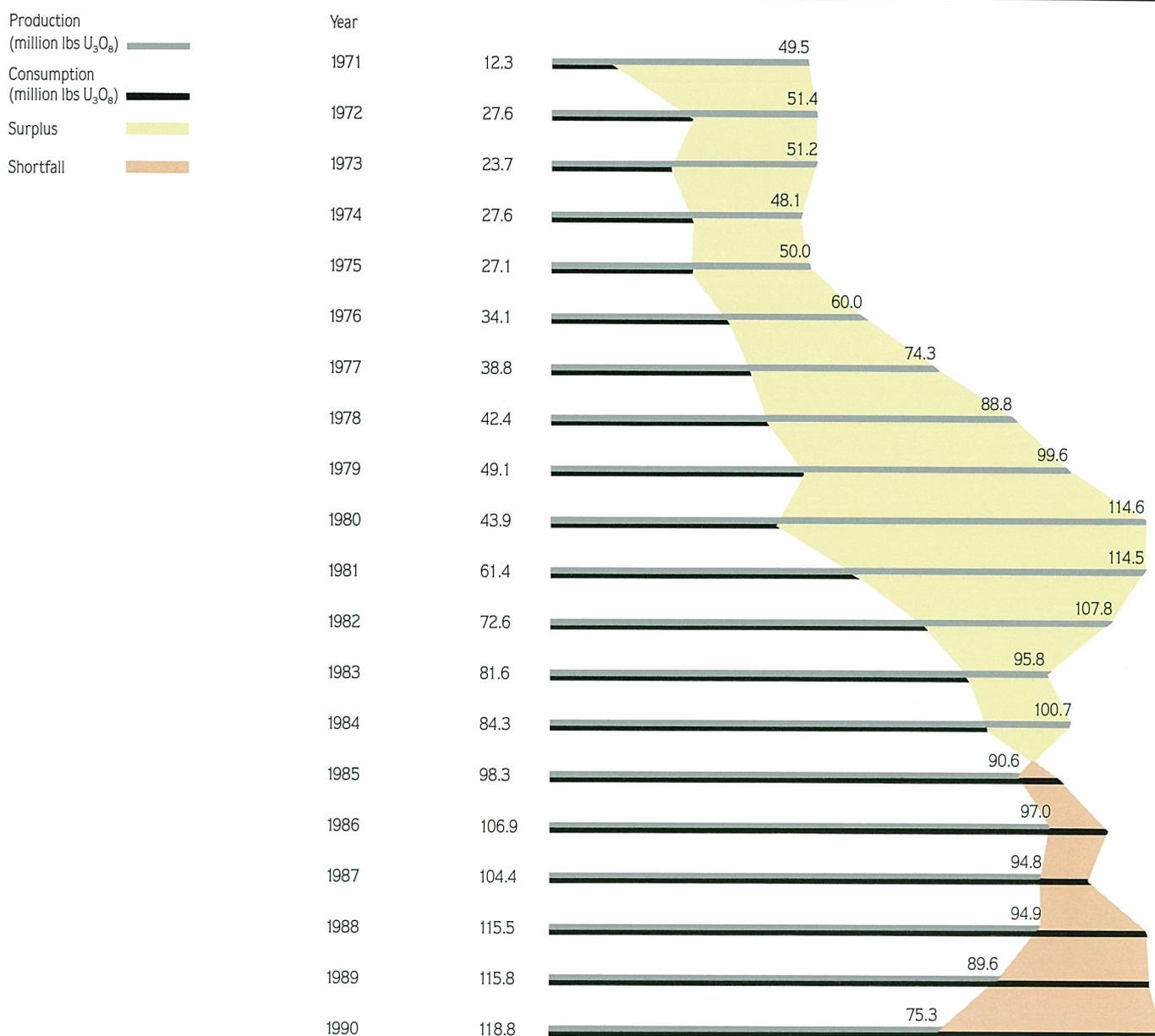


**DIRECTORS' OUTLOOK** The years immediately ahead will be a testing time for ERA, indeed for all uranium producers. Conceived at a time of strong demand and booming prices, the Company has seen the spot price fall over the past decade or so from a peak in excess of US\$40/lb U<sub>3</sub>O<sub>8</sub> to its present level below US\$9/lb U<sub>3</sub>O<sub>8</sub>. Despite a steady increase in consumption over the same period, mine production in market economy countries has fallen by more than one-third. The balance of utilities' needs has been drawn from stockpiles and inventories accumulated in earlier years, facilitated by trader activity.

ERA, through the support of its overseas shareholder-customers and some other far-sighted utilities, has been insulated from the worst ravages of the spot market, but the ready availability of uranium at such low prices continues to erode long-term contract terms.

The recent biennial price negotiations saw a further reduction in the price for 1992 and 1993 deliveries. Nevertheless, these settlements compare well with those received by other producers, an indication that Japanese and European utilities still value producer performance and reliability of supply.

Historic Uranium Supply and Demand



It is axiomatic that the longer prices remain depressed and the more the capacity of the uranium mining industry to supply is reduced through mine closures and lack of investment, the more dramatic will be the price recovery when it occurs. Inventories are finite and consumption is an appetite that must be fed. The major industrial nations of the world depend on nuclear power for 24 per cent of their electricity needs.

ERA's task is to manage its shareholders' investment for maximum short-term benefit through the trying years immediately ahead while at the same time positioning itself to take immediate advantage of the recovery in demand (and hence price) for mined uranium when that occurs. Despite the high level of Government intervention in the industry around the world, the uranium market is fundamentally no different to any other commodity in its response to supply and demand.

ERA's forecasts for the next two years indicate further declines in sales tonnages of Ranger product.

Ranger is and will continue to be operated in such a way as to minimize its cost of production without high-grading its reserves. Operating parameters are under continuous review in order to sustain the Company's financial strength, not only in terms of profit but also cash flow.

Ranger is currently the third largest uranium mine in the western world and ERA is the fourth largest producer. In addition, over the past two years and in the light of current spot prices that are well below Ranger's cost of production, the Company has become a major buyer of uranium in the spot market for back-to-back supply under its market-related US contracts. This activity is making a modest contribution to profits while assisting to maintain ERA's global market share at a time when most producers are losing ground to traders.

Yet another example of making a virtue out of necessity, ERA has over the past year begun marketing its expertise in environmental science to other mining companies, with some success.

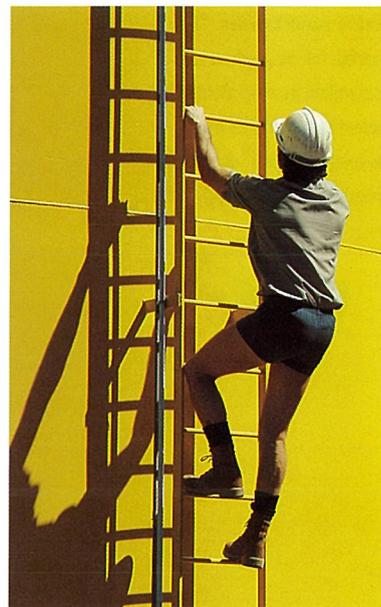
ERA's mainstream business remains the sale of its own product. Until the present world inventory surplus is depleted, the opportunities to increase Ranger's sales are restricted to those few utilities with emerging supply deficits who are prepared to pay a price premium for long-term security of supply. Such business can in the short term do no more than sustain the Company's profitability near historic levels. There will be no significant increase in earnings without a fundamental improvement in market conditions. When this occurs, the Company will be able to take full advantage of its innate competitiveness in terms of its:

- ▷ international recognition as a reliable supplier,
- ▷ proven operating record, and
- ▷ substantial low cost reserves.

When nuclear power utilities see uranium supply tightening, they will once again put a tangible value on these qualities and turn to those producers best able to meet their long-term needs.

Two years ago, recognising the Company's declining reserves and the need to adopt a planning horizon that was in step with utility expectations, ERA began to look for cost competitive reserves available for acquisition at a discount to their long-term value. At the time, North America offered the best prospects for success. Towards the end of 1990, it became apparent that an opportunity was emerging to acquire an interest in Jabiluka, the second largest uranium resource known in the western world and adjoining Ranger. Subsequent negotiations culminated in ERA's recent purchase of 100 per cent of this deposit for A\$125 million, significantly below its long-term value to the Company. The acquisition will be funded by debt through a bridging finance arrangement.

While the cost of financing this acquisition must be borne by ERA at a difficult time, the opportunity was one that could not be foregone. The mineable reserves at Jabiluka have yet to be finally determined; however, it is clear already that, by the middle of the decade when the market is forecast to recover, ERA will have three times the reserves in the ground that it would otherwise have had. With Jabiluka, ERA is set to become a world market leader in the uranium industry in the years ahead.



**“Operating parameters are under continuous review in order to sustain the Company's financial strength, not only in terms of profit but also cash flow.”**

An eye on the future. ERA's directors see a bright future for the Company. It has a quality product, dedicated people with foresight, loyal partners and customers; and it has the underlying financial strength to capitalize on future opportunities. The market for its product is expanding as new electricity based technologies are developed. ERA's focus is on matching that growing demand.



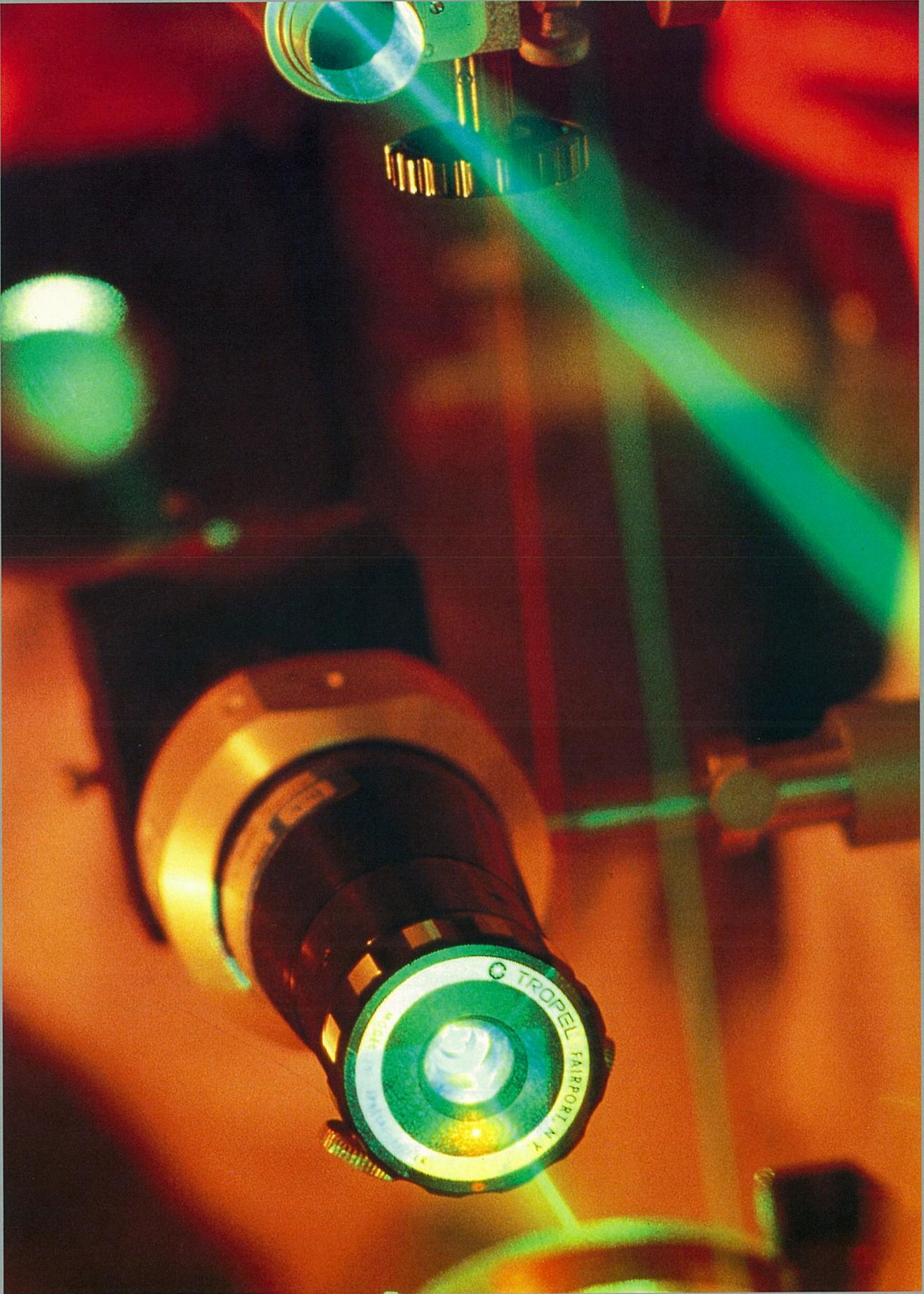
In stating this, it is recognised that the development of Jabiluka is subject to the approval of both the Federal and Northern Territory Governments. Priority will be given to securing that approval at the earliest date so that the Company is free to respond to market forces in a timely manner. Future stability in the industry depends on timely decisions if the roller-coaster fluctuations of the past are not to be repeated.

In summary, the immediate outlook is for lower revenues and profits. ERA will however use this time to position itself to take advantage of the longer-term recovery

- ▷ by seeking further improvements to its operations at Ranger,
- ▷ by intensively promoting ERA as well as its product to nuclear power utilities around the world, and
- ▷ by bringing both of its undeveloped orebodies, Ranger No. 3 and Jabiluka No. 2, to the point of development.

Having restored an emerging weakness in reserves relative to its international competitors to a position of strength, ERA has established a firm base for growth that will carry the Company well into the next century.

Year	Nuexco Exchange Value (Spot Price) US\$/lbU <sub>3</sub> O <sub>8</sub>	Historic Nuclear Generating Capacity GWe (net)
1971	6.06	22.3
1972	5.95	32.2
1973	6.41	41.3
1974	11.01	55.7
1975	23.68	70.8
1976	39.47	80.6
1977	42.16	94.6
1978	43.20	105.9
1979	42.67	120.7
1980	31.79	131.1
1981	24.19	152.0
1982	19.90	159.9
1983	22.98	177.5
1984	17.27	202.4
1985	15.60	242.7
1986	17.00	263.3
1987	16.78	288.8
1988	14.55	309.4
1989	10.00	319.1
1990	9.76	324.4



# B O A R D O F D I R E C T O R S

**Mr. Alex L Morokoff**, AO, ASTC (Eng), FIE (Aust).

Age 62, an electrical engineer and Chairman since foundation in 1980. Mr Morokoff is also Chairman of the Australian Telecommunication Corp and Deputy Chairman of Lend Lease Corporation Limited, the Commonwealth Telecommunications Interim Board Limited and the Work Skill Australia Foundation. He is also a Director of IBM Australia Limited and the MLC Group.

**Mr. Peter H Wade**, FCPA.

Age 57, an accountant. Mr Wade was appointed Deputy Chairman of ERA in January 1991 after joining the Board in March 1987. He is Managing Director of North Broken Hill Peko Limited, Chairman of Gunns Kilndried Timber Industries Ltd, Deputy Chairman of the Commonwealth Serum Laboratories Ltd and a Director of Pasminco Limited.

**Mr. R Lawrence Baillieu**, BSc, BA.

Age 56, a Director of ERA since December 1987. Mr Baillieu is also Deputy Chairman of North Broken Hill Peko Limited, a Director of the National Commercial Union Limited and a Director of the Civil Aviation Authority.

**Mr. G William Forster**, FCPA, FCIS, FCIM.

Age 58, an accountant and a Director of ERA since May 1988. Mr Forster is a former Director – Corporate Affairs for North Broken Hill Peko Limited.

**Mr. Richard Knight**, MSc (Eng), DIC, ARSM, C Eng.

Age 50, a mining engineer and Chief Executive of ERA. Formerly a Group Executive of Peko-Wallsend Ltd, Mr Knight was appointed to the ERA Board in May 1989.

**Dr. Ernest Miller**, BSc (Mining), PhD.

Age 56, a mining engineer and a Director of ERA since July 1986. Dr Miller is also Director – Mining and Industrial for North Broken Hill Peko Limited and a Director of Pasminco Limited.

**Sir Rupert Myers**, KBE, MSc, PhD, DSc(Hon), DEng(Hon), LLD(Hon), DLitt(Hon), FTS.

Age 70, a metallurgist and a Director of ERA since September 1981. Sir Rupert Myers is a former Vice-Chancellor of the University of New South Wales. He is also Chairman of Unisearch Limited. Other directorships include CSR Limited, Winston Churchill Memorial Trust in Australia, James N Kirby Foundation, A W Tyree Foundation and Earthwatch Australia.

**Mr. Masuo Shibata**

Age 61, appointed to the ERA Board in February 1991 after nomination by holders of C-class shares. Mr Shibata is Senior Managing Director of Kansai Electric Power Company and President and a Director of the Japan Australia Uranium Resources Development Co Ltd (JAURD).

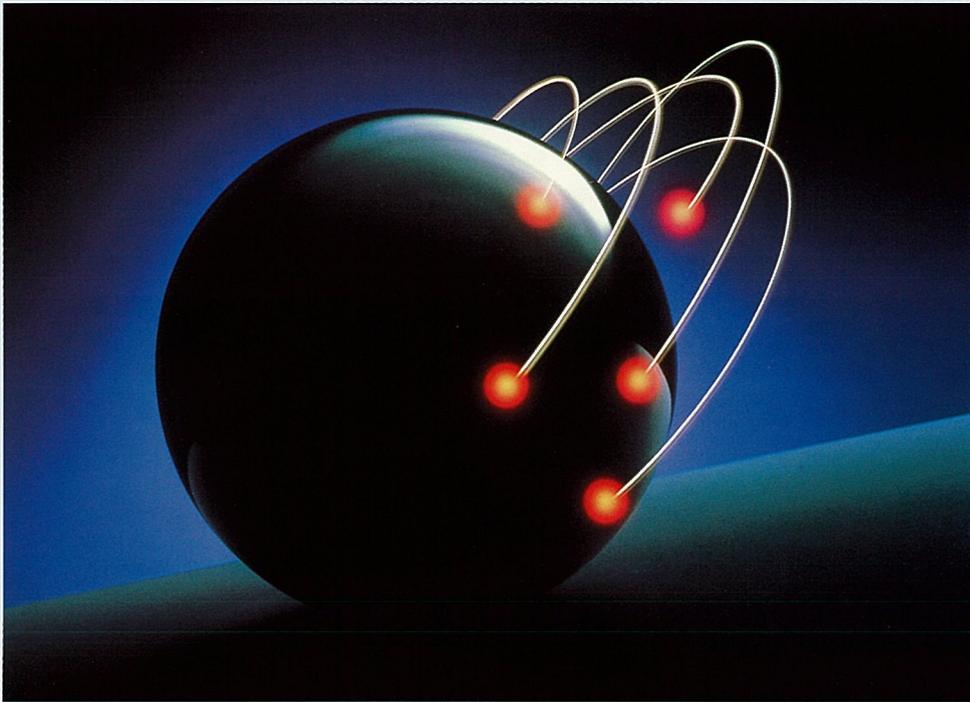
**Mr. Hans Weise**, Dipl.Ing (Mining).

Age 60, a mining engineer, nominated by holders of B-class shares to the ERA Board in December 1987. Mr Weise is Managing Director of Rheinbraun Australia Pty Ltd.

## B O A R D R E T I R E M E N T S

**Mr. Tamotsu Inoue**

Retired as the Director representing C-class shareholders in February 1991. He had been a Director of ERA since June 1987.



In the last ten years nuclear power has made enormous strides, and now has 17 per cent of the world's electricity market. Moreover, total electricity demand has been expanding rapidly, so that percentage figures mask the true scale of the achievement: nuclear power now produces almost exactly as much electricity as came from all sources in 1958. The USA has the largest number of operating power reactors – currently 112. In percentage terms France is the clear leader, at 74.5 per cent. Thirteen of the 25 countries with civil nuclear programs make more than a quarter of their electricity this way.

Meanwhile the reactor construction industry has been passing through difficult times. The over-enthusiastic ordering of new reactors which took place twenty years ago, at a time of booming energy use, ignored the inescapable economic effects of the two oil price shocks in 1973 and 1979. Electricity demand and economic activity move in step with each other; but the implications of warnings that higher energy prices meant that growth would cease for a time were brushed aside. Instead of growing at the historic rate of around 7 per cent annually, electricity demand actually fell slightly, making cancellations unavoidable. Nuclear stations were not the only ones to suffer. Many fossil-fuel stations were cancelled as well; but the nuclear stations, being more capital-intensive, were harder hit.

By the time electricity growth had resumed, the 1979 accident at Three Mile Island (TMI) had created a virtual regulatory moratorium on new nuclear projects, even though no-one had been directly harmed, thanks to the safety 'containment' vessel built around the reactor. The reactor construction industry was able to stay alive only due to the many modifications and refurbishments found necessary as the lessons of the accident were digested. Then, just as the worst seemed to be over, disaster struck at the uncontained Chernobyl reactor in 1986, reawakening public anxieties, and imposing further political delays and technical reappraisals.

**“... we need to consider what is required to get nuclear power moving forward again: greater public confidence over nuclear economics, safety, waste disposal, and the prevention of nuclear weapons proliferation. On all these issues the nuclear industry has a better case than it did twenty years ago.”**

# WHAT FUTURE FOR NUCLEAR POWER?

TERENCE PRICE

**The demand for Australia's uranium will ultimately depend on the demand for nuclear power. Terence Price, retired Secretary-General of the Uranium Institute, presents the future for nuclear power and some of its major challenges as we head into the 21st century.**

**“A resurgence of nuclear orders therefore seems possible soon after the turn of the century – provided always that no more serious accidents occur meanwhile.”**

It is only now that the first signs of new reactor orders are reappearing, and then in numbers that are minuscule in comparison with the 423 reactors that were operating at the end of 1990. France is down to about one new order a year. Japan has recently ordered two advanced Boiling Water Reactors. South Korea ordered two Pressurized Water Reactors in 1989, and a further CANDU reactor earlier this year; and has plans for a further six units to be operational within ten years. Two further orders seem possible in both Czechoslovakia and Taiwan. Finland has ambitions for another reactor. Expressions of interest have also been heard from countries as diverse as Hungary, India, Indonesia and Uruguay; but, for the near future, only a scale of one or two units per country. In March 1991 the governments of Belgium, France, Germany and the United Kingdom made a joint declaration of their intention to support the nuclear option. In the USA there are a few signs of movement after a long period of stagnation: the Bush administration's new energy strategy places considerable emphasis on nuclear power, and changes to streamline the cumbersome US reactor licensing regime, if successful, would remove a major hurdle.

Sweden is a particularly interesting case. In May 1987 the government announced a policy of phasing-out nuclear power by the year 2010, and later decided to close the first two stations in 1995 and 1996. However, in 1988 the Swedish parliament adopted a policy constraining the use of coal and hydrocarbon in power stations, for 'greenhouse' reasons; there were also environmental constraints on increasing hydropower. In January 1991 the government abandoned the phasing-out of the first two reactors. This partial recognition of reality is potentially of great significance, because the Swedish policy of early nuclear phase-out has often been quoted by environmentalists elsewhere as evidence that acceptable economic alternatives can be found.

In judging whether these few swallows will lead on to a nuclear spring we need to consider what is required to get nuclear power moving forward again: greater public confidence over nuclear economics, safety, waste disposal, and the prevention of nuclear weapons proliferation. On all these issues the nuclear industry has a better case than it did twenty years ago. 'Greenhouse' considerations provide additional support. A resurgence of nuclear orders therefore seems possible soon after the turn of the century – provided always that no more serious accidents occur meanwhile.

## E C O N O M I C S

**“If stations of standardized and proven designs are built under a regulatory regime that allows construction in a reasonable time of about five years, then nuclear power is economic except near sources of very cheap coal, such as some parts of the USA.”**

Few issues lead to fiercer disputes than nuclear economics; but the truth is relatively straightforward. If stations of standardized and proven designs are built under a regulatory regime that allows construction in a reasonable time of about five years, then nuclear power is economic except near sources of very cheap coal, such as some parts of the USA. But stations that are individual 'one-off' designs, requiring detailed development, and not having the advantage of a favourable position on the 'learning-curve', start with a fundamental disadvantage. That, unfortunately, is the position of the majority of reactors built so far. If in addition regulatory arrangements require a completed station to lie idle for years, with interest costs mounting, while objectors challenge its licensing in the courts, nuclear power's chances of competing economically virtually disappear.

Standardization has been the key to the success of Electricité de France, though elsewhere it has not yet got very far. The German 'convoy' program shrank to only three identical reactors. The USA similarly has only a handful of identical stations. The three reactors at Palo Verde, in Arizona, show the potential benefits of standardization: Unit 2 was 5 per cent cheaper than Unit 1, and the start-up time was cut from 56 to 35 weeks.

The United Kingdom in the 1950s and 1960s took the different route of promoting competition, forgetting that the industry would then be committed to sorting out the teething problems of several different reactor types, including the training and logistical load associated with this diversity. Furthermore, when in the 1980s the UK belatedly switched from gas-cooling to water-cooling, domestic politics limited the program to one reactor at Sizewell. The opportunity was missed of spreading the design and start-up costs over a batch of four reactors, as was originally intended. The result is that Sizewell B will produce electricity 50 per cent more expensively than that from the very similar French stations just across the English Channel.

## S A F E T Y A N D R A D I A T I O N R I S K S

Nuclear safety has two aspects: the degree of confidence we can place in our knowledge of the effects of radiation on the human body; and the extent to which we can ensure operating safety generally, whether of reactors, support facilities, or waste dumps.

Our knowledge of the effects of radiation on the human body is by now very extensive. It comes from many sources: medical exposure; occupational exposure of the medical profession, physicists, and industrial workers; occupational health follow-up studies, now stretching over 40 years or more, of the atomic energy work-force; mining experience before the hazards of the naturally-occurring radioactive gas radon were fully appreciated; animal experiments; and not least Hiroshima and Nagasaki. Since 1928 such information has been analysed by Congresses of Radiology, from which sprang the International Commission on Radiological Protection, and by UNSCEAR, the United Nations Scientific Committee on the Effects of Atomic Radiation. The fact that there is no complacency is shown by the reappraisal which led the ICRP to make revised recommendations as recently as November 1990. In some respects these are more stringent than their predecessors by a factor of three or four. This is a matter of some practical importance which could, for instance, influence the economic balance between underground and surface uranium mines, because of the cost of installing additional ventilation equipment to keep the radon hazard below the new limits.

The purpose of radiation regulations is to ensure that exposure does not add significantly to the normal hazards of living. Where doubts remain investigations continue. Recent studies of childhood leukaemia in the UK near the Sellafield reprocessing plant seem to have pinpointed a small but statistically significant incidence amongst the population, many of whom were brought in from elsewhere when the plant was commissioned. But similar small increases have also been found in new towns built since World War II – like Glenrothes in Scotland - where there has been no nuclear involvement. This has led to a tentative suggestion that a virus brought in by immigrant workers, not radiation, may be playing a part. The small incidence makes study a difficult and slow process; but the medical profession is in pursuit, not least for reasons of self-protection.

## O P E R A T I O N A L S A F E T Y O F N U C L E A R I N S T A L L A T I O N S

Nuclear engineers and regulators, like everyone else, learn from experience – a point which is too rarely acknowledged. TMI and Chernobyl profoundly affected the entire approach to nuclear safety. Three months after TMI a new Institute of Nuclear Power Operations (INPO) was set up in the USA to promote excellence in power-plant operation, and a new National Academy for Nuclear Training was established. After Chernobyl, as the full extent of the deficiencies in Soviet safety practices became clear, INPO assisted with the creation of a new World Association of Nuclear Operators;

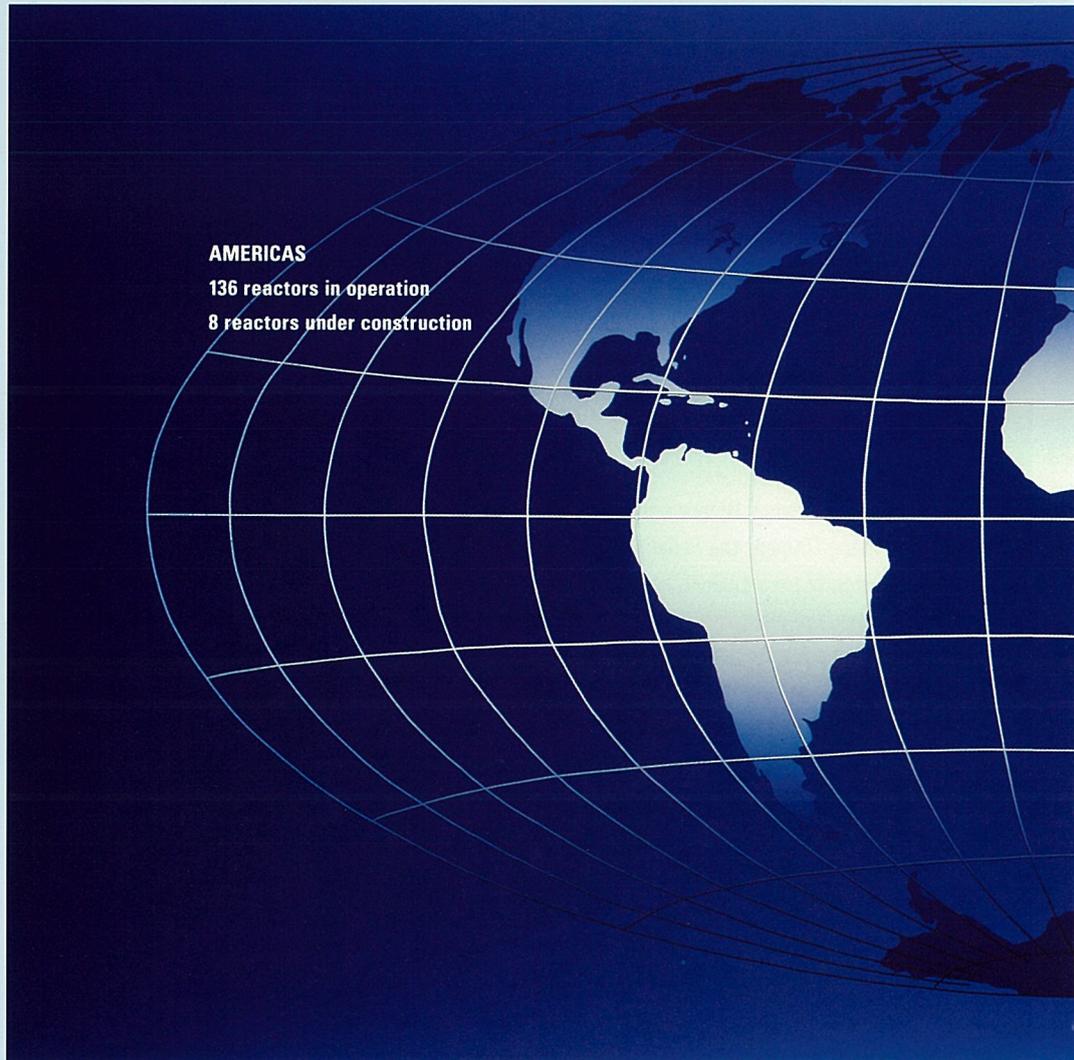
**“The purpose of radiation regulations is to ensure that exposure does not add significantly to the normal hazards of living. Where doubts remain investigations continue.”**

significantly, the inaugural meeting in May 1989 was held in Moscow. Through WANO, plus the many country-to-country assistance agreements, and the expanding advisory programs of the International Atomic Energy Agency (IAEA) in Vienna, there are now regular peer-group safety and reliability reviews.

## REACTOR LICENSING IN THE USA

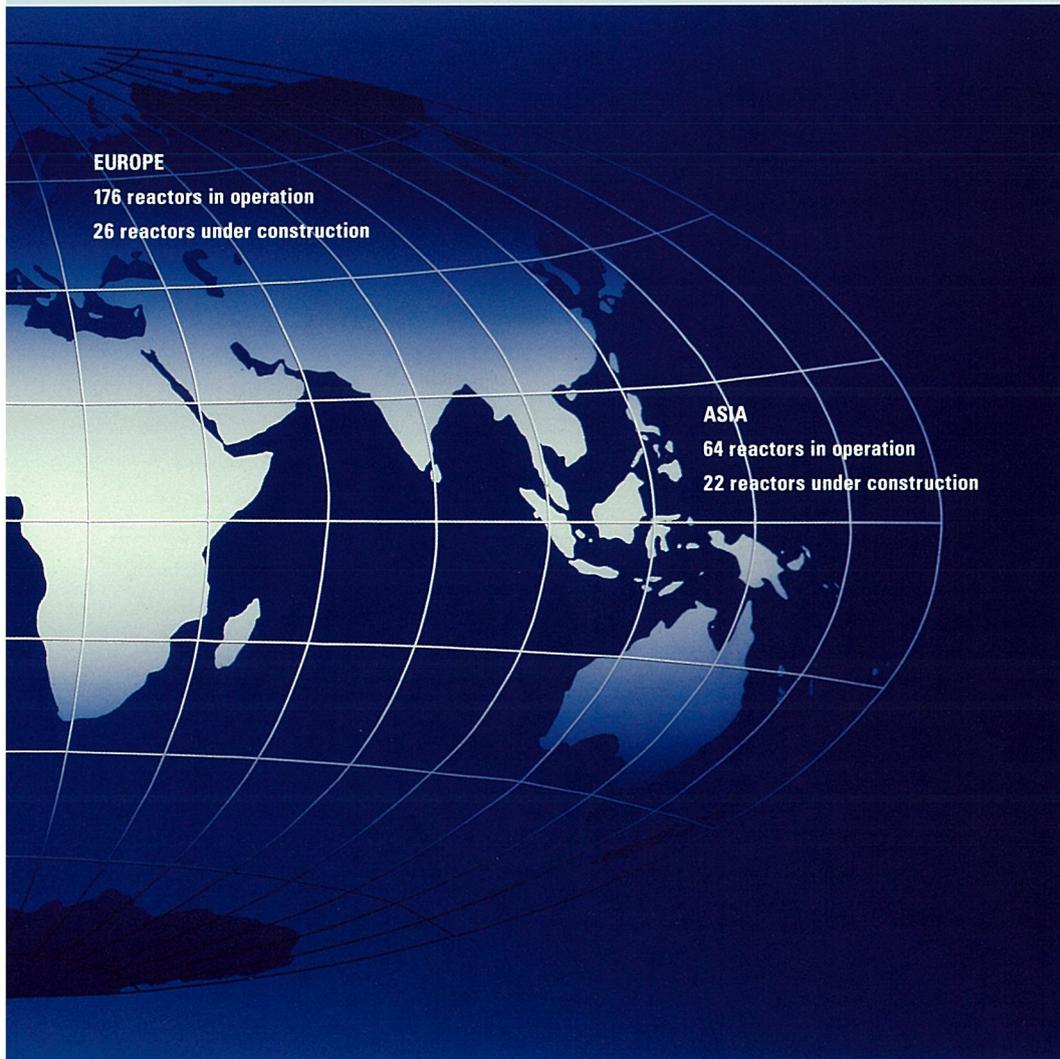
Whatever happens in the USA, the largest user of nuclear energy, is of particular significance. It is therefore important to make due allowance for the uniquely cumbersome American licensing and regulatory system, which has required public inquiries both before construction starts and after a reactor is complete. In such a litigious country interest groups intervene at local, state and federal levels. The result is that many US reactors have remained idle after completion, sometimes for years, accumulating financing charges which, under another US law, often could not be passed on to the

1990	Reactors in operation	Reactors under construction	% Nuclear electricity
<b>A M E R I C A S</b>			
Argentina	2	1	20
Brazil	1	1	1
Canada	20	2	15
Cuba	-	2	-
Mexico	1	1	3
USA	112	1	21
<b>A S I A</b>			
China	-	3	-
India	7	7	2
Japan	41	10	27
Pakistan	1	-	1
South Korea	9	2	49
Taiwan	6	-	35
<b>O T H E R S</b>			
Iran	-	2	-
South Africa	2	-	6
USSR	45	25	12



consumer for as long as the stations did not satisfy the test of being 'used and useful'.

In 1989 the US Nuclear Regulatory Commission recognized the difficulty by publishing new regulations going a long way towards meeting the industry's concerns, without derogating from nuclear safety. The new aim is to complete essentially all licensing formalities at the outset, so that only construction checks are needed subsequently, as in most other countries. In addition, there are moves towards standardization of a new family of reactors, which should permit licensing by type, just as with aircraft. Although there is vigorous opposition from the anti-nuclear lobby, the probability is that, within the next two or three years, the US will establish a new licensing regime that is acceptable to both Congress and the industry. The implications will extend far beyond the shores of the USA. The nuclear opposition elsewhere has for years pointed to a stalled US nuclear industry – while failing to acknowledge that this has been more to do with specifically American laws than with intrinsic nuclear economics.



1990	Reactors in operation	Reactors under construction	% Nuclear electricity
<b>E U R O P E</b>			
Belgium	7	-	60
Bulgaria	5	2	36
Czechoslovakia	8	6	28
Finland	4	-	35
France	56	6	75
Germany*	26	6	33
Hungary	4	-	51
Netherlands	2	-	5
Romania	-	5	-
Spain	9	-	36
Sweden	12	-	46
Switzerland	5	-	43
United Kingdom	37	1	20
Yugoslavia	1	-	5

\*Germany has recently ceased construction on 6 reactors.

Source: IAEA (April 1991) Nuclear Power Reactors in the World

## W A S T E

Everywhere there is public anxiety about the disposal of radioactive waste, some of which remains active for thousands of years. Yet the same public seems unconcerned about the many non-radioactive toxic materials that never decay. Moreover, the longer radioactivity persists the lower is its intensity. The radioactive materials, produced as waste 'fission products' in nuclear reactors, that are of most genuine concern are those which might get into the food chain, and whose radioactive decay rates are such that a substantial amount of their total energy would be released while they were still in the body.

'Geologic' disposal of such radioactive materials is fairly straightforward. The volume of the most highly active material is small, once it has been concentrated in a chemical reprocessing plant: the first thirty years of Britain's nuclear program produced only 1100 cubic metres of such waste – about the size of a medium-sized house. There is no great technical difficulty in identifying suitable disposal sites that are geologically stable, and where groundwater movement is minimal or non-existent. The material can be 'vitrified' in glass, and encased in a further series of barriers to give additional protection. By including concrete as one of the barriers, thus creating alkaline storage conditions, the movement via groundwater of almost all the thirty or so fission product species can be effectively inhibited. Altogether the problem of storage and disposal presents far fewer difficulties than reactor engineering.

The real problem is political. To find storage sites exploratory drilling has to take place, frightening local inhabitants and their political representatives. But eventually governments will have to face up to the problem of explaining to the electorate that there is really nothing to fear – and to get on with the job. This is what is now happening in the USA and France. Sweden has already gone further, and has two major waste facilities already completed.

Why was this relatively simple problem not dealt with earlier? The main reason is that, in a technical sense, there was no real hurry. The highly active fission products coming out of a reactor initially produce too much heat for safe underground storage, and first need to be left to 'cool' – both literally and figuratively – in a surface storage facility for around 50 years. Surface storage has been proceeding for three decades, in most cases with few problems, either technical or political. Unfortunately the rushed war-time development of nuclear weapons in the USA led to the dumping of radioactive materials at a number of sites with few precautions, notably at Hanford in the State of Washington. The publicity over cleaning up Hanford has rubbed-off adversely onto civil nuclear power. At the USSR's Chelyabinsk-40 weapons production site the situation is even worse. The problem the nuclear industry faces is to break the association in the public mind between such legacies of military waste, and the well-supervised planning of civil nuclear waste facilities. Once more civil facilities are seen to be operating without difficulty, the public's mind will be easier. By the year 2005 waste storage should no longer be a blocking issue.

## N U C L E A R P R O L I F E R A T I O N

Some of the popular disquiet about nuclear electricity must be a matter of association: the same word – nuclear – also describes the most lethal form of weaponry. Moreover, some of the technology for preparing nuclear fuel is common to both peaceful and warlike applications. It has been the pragmatic aim of most governments to retain the benefits of this new form of energy, while erecting

**"There is no great technical difficulty in identifying suitable disposal sites that are geologically stable, and where groundwater movement is minimal or non-existent. ...The real problem is political."**

the strongest possible political barriers against proliferation. The Nuclear Non-Proliferation Treaty (NPT) of 1968, a bargain between the nuclear-weapons states and the rest of the world, is one of the great political successes: 141 out of 159 countries have signed it – including countries like Iran and Libya which in other respects resist encroachment on their sovereignty. Non-nuclear weapons states have thereby agreed to accept the Treaty’s constraints and inspection of their nuclear facilities by the IAEA, based in Vienna. France, with her special status as a late-coming nuclear weapons power, has recently agreed to sign the NPT after years of refusal – while acting as though she had already done so.

Backing up the NPT is the Nuclear Suppliers Group (the so-called London Club), formed in 1975 to exert political pressure to prevent any leakage of nuclear materials which might assist a clandestine weapons program. It has grown to include 26 countries. Individual governments apply what pressures they can. For instance, the USA suspended new economic aid to Pakistan (a non-signatory), worth \$600 million a year, on 1 October 1990, because the US President felt unable to certify to Congress that Pakistan did not have a nuclear weapons program. Germany is reluctant to help finish the twin-reactor station at Bushehr in Iran, because of uncertainties about the long-term intentions of the regime. The pressures exerted by the Soviets and Japan on North Korea to accept international inspection of their nuclear energy program has had some positive effects. Carrots are used as well as sticks: following an accord agreeing to mutual inspection of nuclear facilities between two non-signatories of the NPT, Brazil and Argentina, both the USA and Canada signalled that they were prepared to resume trade in nuclear materials.

Although Iraq is a signatory of the NPT, it is known that prior to the Gulf War the country was clandestinely planning to manufacture enriched uranium, potentially of weapons grade. This poses a much greater long-term threat to world stability than two small reactors at Tuwaitha, near Baghdad, which were attacked during the war. Although their fuel was theoretically enough for one crude weapon, it was not in weapons form, and the reactors had been inspected by the IAEA as recently as November 1990. Security Council Resolution 687 brought the reactor fuel directly under the control of the United Nations. Subsequently, much more stringent sanctions have been threatened if Iraq fails to make full disclosure of its potential weapons program. The Iraq case will highlight the issue of sanctions for non-compliance when the Non-Proliferation Treaty comes up for extension in 1995.

The overall picture is of international determination to minimize the threat. Nuclear objectors can point to proliferation as a potential problem; but as time goes by it becomes increasingly difficult to argue that by not building a reactor in Europe or the USA we can keep the Middle East or the Indian sub-continent on the path of nuclear rectitude. This once persuasive argument against civil nuclear power has been substantially dealt with by the quarter of a century of quiet diplomacy that has helped to make the world a safer place.

## DEMOGRAPHIC AND CLIMATIC INFLUENCES

Two major new influences are about to reinforce the case for further nuclear expansion. One is world population pressure. The 5.3 billions alive at the beginning of the 1990s are expected to increase to 8.5 billions by the year 2025, and perhaps reach 14 billions by the year 2100. While many of these people will live in abject poverty, there will also be some industrialization needing new energy resources. Total energy consumption in the developing world is growing at 4 per cent annually, twice as fast as in the industrialized world. By 2020 the world will be consuming anything up to 30 to 50 per

**“Nuclear objectors can point to proliferation as a potential problem; but as time goes by it becomes increasingly difficult to argue that by not building a reactor in Europe or the USA we can keep the Middle East or the Indian sub-continent on the path of nuclear rectitude.”**

**“While the renewables can provide a useful energy supplement, particularly in remote sites, they have the disadvantage of supplying electrical energy in very small packets, compared with the size of a modern central power station.”**

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From 1947 TERENCE PRICE spent 13 years at the Harwell atomic research establishment in the UK, specializing in radiation protection and reactor development. He also made a study of the dangers of nuclear proliferation, and was a delegate to two United Nations Disarmament Conferences. There followed a period in central government in the defence and transport ministries, finally as a Chief Scientific Adviser. In 1975 he became the first Secretary-General of the Uranium Institute, which by the time of his retirement in 1987 had become the principal international meeting-place for all connected with nuclear fuel – consumers and producers alike. **POLITICAL ELECTRICITY: WHAT FUTURE FOR NUCLEAR ENERGY?** published by Oxford University Press, draws on this experience to analyse the political and technical forces that are shaping the future of nuclear power.



cent more energy than today. Energy conservation and efficiency are therefore assuming a new importance. Since 1974 France has reduced the energy requirements of new buildings by more than half; while Japan has reduced the electricity used to produce a tonne of steel by 21 per cent. However, there is no certainty that such measures will halt demand growth altogether, still less reverse it. The more likely outcome is that mankind will continue to use energy wastefully until compelled by economic necessity to do otherwise.

A second influence will be the steadily growing certainty that the 'greenhouse' effect is indeed real. Only nuclear power, hydro power, and the other 'renewable' energy sources – wind, solar, geothermal, tides, and in a few special locations waves – do not add to greenhouse heating, and thus to the anticipated rise in sea level due to the melting of the polar ice. While the renewables can provide a useful energy supplement, particularly in remote sites, they have the disadvantage of supplying electrical energy in very small packets, compared with the size of a modern central power station. Even when the wind is blowing at 50 kilometres an hour it could take as many as 300 windmills 90 metres high to equal the output of a single large nuclear reactor. Moreover, economic forecasts do not invite the abandonment of nuclear power in favour of the renewables.

Meanwhile commitments have been made by European governments and Japan (though not the USA) to reduce carbon dioxide emissions rapidly – in the case of west Germany by 25 per cent by the year 2000. What is certain is that, with conventional power stations currently producing 30 per cent of Europe's carbon dioxide, such a target would be out of reach without a continuing nuclear program. The connection between the greenhouse effect and nuclear energy policy is not yet strong in the public mind; but the realization must come before long that choices cannot be avoided. 'To govern is to choose' said Pierre Mendes-France. In the real world there is no place for extreme nuclear rejectionism – as the Swedes have discovered.

## T H E F U T U R E

There is no simple way in which public opinion can be favourably influenced by the nuclear industry. Its motivations are too diverse, and in any case there is no leader with whom to bargain. Nevertheless, in the next ten years there should be a perceptible shift in the balance of the debate between those who wish to exploit the benefits of nuclear energy, and those who think otherwise. The common element in the varied anxieties we have been examining is that the circumstances of the past ten years have played into the objectors' hands. But the industry has shown itself to be quite capable of learning, and has been taking seriously the task of improving its performance and removing obstacles to progress. There are strong grounds for thinking that before the year 2000 a new technical and political context will have been created – so that, allowing for the normal delays for planning, financing, licensing and construction, a new wave of nuclear reactors should begin to appear in about 15 years' time. This is why cautious assessments of growth prospects up to 2005 do not carry adverse implications for what will happen thereafter. There is every reason to expect installed nuclear capacity to at least double by 2020, and for nuclear electricity to be supplying one-tenth of the world's expanded energy needs by then.

Nuclear power can never be a total replacement for other energies. But thirty years from now its contribution is likely to be more than from hydro power, considerably more than from the other 'renewables', and one-quarter to one-third that of coal. That is quite a prospect for an energy source that did not exist 50 years ago, and one worthy of celebration.



# FINANCIAL SECTION

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## DIRECTORS' REPORT

The directors of Energy Resources of Australia Ltd (ERA) present the accounts of the Company and its subsidiaries for the year ended 30 June 1991.

### Directors

The following persons hold office as directors of ERA at the date of this report:

A L Morokoff, AO, Chairman  
 P H Wade, Deputy Chairman  
 R L Baillieu  
 G W Forster  
 R Knight, Chief Executive  
 Dr E Miller  
 Sir Rupert Myers  
 M Shibata, representing holders  
 of C Class shares  
 H Weise, representing holders  
 of B Class shares

Mr T Inoue retired as the director representing C Class shareholders in February 1991.

### Principal Activities

The principal activities of ERA and its subsidiaries in the course of the financial year consisted of mining, processing and the sale of uranium. There was no change in the nature of those activities during the financial year.

### Dividends

The following dividends have been paid or are payable by ERA:

	1991 \$000	1990 \$000
Interim dividend of five (5) cents per share paid on 31 May and fully franked	20 500	20 500
Final dividend of five (5) cents per share payable on 29 November and fully franked	20 500	
Final dividend of five (5) cents per share payable on 30 November and fully franked		20 500
<b>Total Dividends for Year</b>	<b>41 000</b>	<b>41 000</b>

### Review of Operations

	1991 \$000	1990 \$000
Total Sales Revenue	210 407	206 898

A full review of the operations of ERA during the year ended 30 June 1991 are shown in this Annual Report in the sections entitled Mining (page 4), Processing (page 4), Environment (page 6), Safety (page 9), People (page 10), Marketing (page 13) and Finance (page 14).

### State of Affairs

The directors are not aware of any significant change in the state of affairs of the Group that occurred during the financial year which has not been covered elsewhere in this Annual Report.

### Post Balance Date Matters

The directors are not aware of any matter or circumstance that has arisen since the end of the financial year that has significantly affected or may significantly affect the operations of the Group, the results of those operations or the state of affairs of the Group in subsequent financial years except as stated elsewhere in this Annual Report (Note 28).

### Likely Developments

In the opinion of the directors, likely developments in the operations of the Group known at the date of this report have been covered within the Annual Report, the Balance Sheet and Profit and Loss Account and notes thereto. A review of the outlook for ERA is presented in the section entitled Directors' Outlook (page 16).

### Information on Directors

The particulars of qualifications, experience and special responsibilities of ERA's directors are shown in the section entitled Directors in this Annual Report (page 20).

The interests of each Director in the share capital of the Company as at the date of this report are shown in Note 27 forming part of the accounts.

### Directors' Benefits

No Director of ERA, since 30 June 1990, has received or become entitled to receive a benefit other than Director's remuneration included in Note 3 forming part of the accounts.

### Share Options

No options on shares in ERA or in any subsidiary have been granted during the financial year and up to the date of this report nor are any such options outstanding.

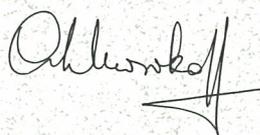
### Rounding of Amounts

The holding company, ERA, is a company of the kind referred to in Regulation 3.6.05(6) of the Corporations Regulations and amounts in the Directors' Report and the accounts have been rounded-off to the nearest thousand dollars in accordance with section 311 of the Corporations Law and Regulation 3.6.05.

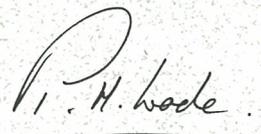
### Information on Auditors

Coopers & Lybrand, Chartered Accountants, continue in office in accordance with Section 327 of the Corporations Law.

Signed at Sydney this 30th day of August 1991 in accordance with a resolution of the directors.



AL Morokoff AO  
Director



PH Wade  
Director



## PROFIT AND LOSS STATEMENT

For the year ended 30 June 1991

ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES		CONSOLIDATED AND PARENT	CONSOLIDATED AND PARENT
	NOTE	1991 \$000	1990 \$000
Operating profit before abnormal items and income tax	1-3	101 604	104 179
Abnormal items before income tax	6	—	21 651
<b>Operating profit before income tax</b>		<b>101 604</b>	<b>125 830</b>
Income tax attributable to operating profit	4-5	27 554	68 328
<b>Operating profit after income tax</b>		<b>74 050</b>	<b>57 502</b>
Profit on extraordinary item	5	47 326	—
<b>Operating profit and extraordinary item after income tax</b>		<b>121 376</b>	<b>57 502</b>
Retained profits at the beginning of the financial year		54 793	38 291
<b>Total available for appropriation</b>		<b>176 169</b>	<b>95 793</b>
Dividends provided for or paid	23	41 000	41 000
<b>Retained profits at the end of the financial year</b>		<b>135 169</b>	<b>54 793</b>



## BALANCE SHEET

As at 30 June 1991

ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES		CONSOLIDATED AND PARENT	CONSOLIDATED AND PARENT
	NOTE	1991 \$000	1990 \$000
<b>Current Assets</b>			
Cash	7	4 597	21 180
Receivables	8	79 876	78 575
Inventories	9	115 155	96 987
Other	10	10 821	9 666
<b>Total Current Assets</b>		<b>210 449</b>	<b>206 408</b>
<b>Non-Current Assets</b>			
Receivables	11	—	1 813
Property, plant & equipment	12	293 228	301 233
Other	13	324 079	338 037
<b>Total Non-Current Assets</b>		<b>617 307</b>	<b>641 083</b>
<b>Total Assets</b>		<b>827 756</b>	<b>847 491</b>
<b>Current Liabilities</b>			
Creditors and borrowings	14	20 733	40 725
Provisions	15	73 249	170 338
<b>Total Current Liabilities</b>		<b>93 982</b>	<b>211 063</b>
<b>Non-Current Liabilities</b>			
Creditors and borrowings	16	83 355	64 272
Provisions	17	105 250	107 363
<b>Total Non-Current Liabilities</b>		<b>188 605</b>	<b>171 635</b>
<b>Total Liabilities</b>		<b>282 587</b>	<b>382 698</b>
<b>Net Assets</b>		<b>545 169</b>	<b>464 793</b>
<b>Shareholders' Equity</b>			
Share capital	18	410 000	410 000
Retained profits		135 169	54 793
<b>Total Shareholders' Equity</b>		<b>545 169</b>	<b>464 793</b>

Notes to and forming part of the accounts are annexed.

## SIGNIFICANT ACCOUNTING POLICIES

Used in the ERA Group

**Basis of Accounting**

The Company and Group accounts have been prepared in accordance with Statements of Accounting Concepts, applicable Accounting Standards and the disclosure requirements of Schedule 5 of the Corporations Regulations.

These accounts are based on the historical cost accounting convention as practised in Australia and the accounting policies adopted are consistent with those of the previous year, except as otherwise stated.

**Principals of Consolidation**

The consolidated financial accounts give a view of the Group as a whole. A list of subsidiaries appears in Note 24. All inter-company transactions are eliminated. Where the heading "Consolidated and Parent" appears, the accounts for the parent company are equal to the accounts on consolidation.

**Depreciation and Amortisation**

Depreciation and amortisation of plant and equipment is provided for as follows:

- (i) individual assets that have a life equal to or longer than the estimated remaining life of the mine are depreciated over a period not longer than the estimated mine life in proportion to ore reserve utilisation;
- (ii) each other asset is depreciated over its estimated operating life on a straight line basis.

**Ranger Project Rights**

Ranger Project Rights are amortised over actual production as a proportion of the estimated recoverable reserves.

**Foreign Currency**

Foreign currency transactions are converted to Australian dollars at exchange rates ruling at the dates of those transactions. Amounts payable and receivable in foreign currency at balance date are converted to Australian dollars at the exchange rate ruling on that date.

Exchange differences arising from the conversion of amounts payable and receivable in foreign currencies are treated as operating revenue and expenses in the period in which they arise.

Exchange differences on the specific hedging of revenue and expense items are deferred until the date of purchase or sale at which time they are included in the measurement of the transactions to which they relate.

Costs or gains arising at the time of entering into hedge transactions are accounted for separately and brought to account in profit and loss over the lives of the hedge transactions.

**Inventories**

Inventories are stated at the lower of cost and net realisable value using the average cost method. Cost

includes both fixed and variable production costs. No accounting value is attributed to ore *in situ* or broken ore within the mine.

**Deferred Expenses**

Deferred expenses are amortised over the period to which they relate. The share issue expenses have been written off over the first five financial years of full operation.

Borrowing costs incurred in 1981 were amortised over eight and one-half years from 15 November 1981 to the scheduled final repayment of the projected loans. Costs incurred in 1986 were amortised over five years to January 1991.

**Income Tax**

Income tax expense for the year is based on pre-tax accounting profit adjusted for items, which, as a result of treatment under income tax legislation, create permanent differences between pre-tax accounting profit and taxable income.

To arrive at tax payable, adjustments to income tax expense are made for items which have been included in time periods for accounting purposes which differ from those specified by income tax legislation.

The extent to which timing differences give rise to income tax becoming payable in a different year, as indicated by accounting treatment, is recorded in the balance sheet as provision for deferred income tax using current tax rates.

**Sales**

Sales are accounted for when product has been delivered in accordance with a sales contract.

**Leases**

A distinction is made between finance leases which effectively transfer from the lessor to the lessee substantially all the risks and benefits incident to ownership of the leased property, and operating leases under which the lessor effectively retains all such risks and benefits. Where non-current assets are acquired by means of finance leases, the present value of minimum lease payments is established as a non-current asset at the beginning of the lease term and amortised on a straight line basis over its expected economic life. A corresponding liability is also established and each lease payment is allocated between such liability and interest expense.

Operating lease payments are charged to the profit and loss account in the periods in which they are incurred.

**Contributions to Superannuation Funds**

Contributions made by the group to existing employee contributory superannuation funds (to provide benefits for employees and their dependants on retirement, disability or death) are charged to the profit and loss account.

## STATEMENT OF SOURCES & APPLICATIONS OF FUNDS

For the year ended 30 June 1991

ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES	CONSOLIDATED		CONSOLIDATED	
	1991 \$000	1991 \$000	1990 \$000	1990 \$000
<b>Sources of Funds</b>				
Funds From Operations				
Inflows of funds from operations (Note 1)	222 406		228 105	
Less outflows of funds from operations	120 802	101 604	102 275	125 830
Add non-cash items				
Amortisation and depreciation	29 978		29 571	
Other	3 572	33 550	1 830	31 401
		135 154		157 231
Reduction in Current Assets				
Cash on hand	20 583		-	
Short-term deposits (at call)	-		2 000	
Short-term deposits	-		24 670	
Trade debtors	-		16 683	
Other debtors	15 110		-	
Amount owing from holding company	-		4	
Prepayments	-	35 693	1 763	45 120
Reduction in Non-Current Assets				
Term debtors	1 813		-	
Leased assets	3 334		3 670	
Plant and equipment	31	5 178	336	4 006
Increase in Current Liabilities				
Other creditors	36		-	
Notes and bills payable	-		4 169	
Bank overdraft	411		-	
Amount owing to holding company	-		9	
Amount owing to related corporation	83		30	
Term creditors	5 223	5 753	-	4 208
Increase in Non-Current Liabilities				
Term creditors	6 542		-	
Notes and bills payable	13 801	20 343	-	-
		202 121		210 565
<b>Applications of Funds</b>				
Increase in Current Assets				
Cash on hand	-		20 149	
Short-term deposits (at call)	4 000		-	
Short-term deposits	2		-	
Trade debtors	16 395		-	
Other debtors	-		15 288	
Inventories	18 326		11 888	
Amount owing from holding company	16		-	
Prepayments	1 153	39 892	-	47 325
Increase in Non-Current Assets				
Term debtors	-		1 813	
Buildings	836		239	
Plant and equipment	10 544	11 380	11 754	13 806
Reduction in Current Liabilities				
Bank overdraft	-		340	
Notes and bills payable	25 481		-	
Other loans	-		327	
Trade creditors	-		3 012	
Other creditors	-		6 982	
Amount owing to holding company	9		-	
Finance lease liabilities	255	25 745	538	11 199
Reduction in Non-Current Liabilities				
Term creditors	-		144	
Notes and bills payable	-		61 619	
Finance lease liabilities	1 260	1 260	1 636	63 399
Dividends paid		41 000		41 000
Income tax paid		80 844		32 175
Maintenance paid		440		98
Employee entitlements paid		1 560		1 563
		202 121		210 565



## NOTES TO AND FORMING PART OF THE ACCOUNTS



ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES	CONSOLIDATED AND PARENT	CONSOLIDATED AND PARENT
	1991 \$000	1990 \$000
<b>1. Revenue</b>		
(a) Sales revenue	210 407	206 898
(b) Other revenue		
Rehabilitation refund (Note 6)	7 153	15 427
Interest received/receivable	4 803	5 442
Proceeds on sale of non-current assets	43	338
	<b>222 406</b>	<b>228 105</b>

	CONSOLIDATED		PARENT	
	1991 \$000	1990 \$000	1991 \$000	1990 \$000

### 2. Operating Profit

The operating profit before abnormal items and income tax is arrived at after charging and crediting the following specific items:

Charges:

Amortisation of Ranger Project Rights	13 674	12 737	13 674	12 737
Amortisation of deferred expense	284	443	284	443
Amortisation of leased assets	984	1 540	984	1 540
Depreciation of non-current assets	15 036	14 851	15 036	14 851
Royalty type expense	2 352	2 493	2 352	2 493
Payments for Aboriginal interests	8 198	8 674	8 198	8 674
Rehabilitation fund payments				
and guarantee costs	23	56	23	56
Exploration costs	-	93	-	93
Diminution in value of inventories	-	1 594	-	1 594
Auditors' remuneration				
audit of accounts and group accounts	125	111	125	111
other services	194	439	194	439
Rent expense on operating leases	936	682	936	682
Finance charges on finance leases	307	594	307	594
Contributions to employee retirement funds	565	862	565	862
Interest paid/payable to				
related companies	86	-	86	650
other corporations	4 805	9 780	4 805	9 130
Provision for employee entitlements	2 560	1 794	2 560	1 794
Provision for stores obsolescence	158	-	158	-
Provision for maintenance	426	160	426	160
Credits:				
Interest received/receivable from				
other corporations	4 803	5 442	4 803	5 442
Profit on disposal of non-current assets	12	2	12	2
Provision for stores obsolescence	-	121	-	121

NOTES TO AND FORMING PART OF THE ACCOUNTS

ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES	CONSOLIDATED AND PARENT	CONSOLIDATED AND PARENT
	1991 \$000	1990 \$000



**3. Directors' and Executives' Remuneration**

**(i) Remuneration of Directors**

The number of directors of the Company, including alternate and executive directors, who received income or in respect of whom income is due and receivable, from the Company and related corporations (including North Broken Hill Peko Limited), within the following bands are:

	1991	1990
\$ 0 to \$ 9 999	1	—
\$ 10 000 to \$ 19 999	1	—
\$ 20 000 to \$ 29 999	2	3
\$ 40 000 to \$ 49 999	1	1
\$ 90 000 to \$ 99 999	1	1
\$130 000 to \$139 999	1	1
\$170 000 to \$179 999	2	1
\$190 000 to \$199 999	1	—
\$240 000 to \$249 999	—	1
\$270 000 to \$279 999	1	—
\$320 000 to \$329 999	—	1
\$440 000 to \$449 999	—	1
\$490 000 to \$499 999	1	—

Total remuneration received or due and receivable by the directors, including alternate and executive directors, in connection with the management of the Company from:

the Company	427	373
related corporations (including North Broken Hill Peko Limited)	1 222	1 138
	<u>1 649</u>	<u>1 511</u>

**(ii) Remuneration of Executives**

The number of executive officers and executive directors who received income, or in respect of whom income is due and receivable, which equals or exceeds \$100 000, from the Company, within the following bands are:

	1991	1990
\$100 000 to \$109 999	1	4
\$110 000 to \$119 999	3	—
\$120 000 to \$129 999	1	1
\$130 000 to \$139 999	1	1
\$140 000 to \$149 999	1	1
\$150 000 to \$159 999	1	—
\$170 000 to \$179 999	—	1
\$190 000 to \$199 999	1	—

Total remuneration received or due and receivable by these executives from the Company

	<u>1 206</u>	<u>994</u>
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## NOTES TO AND FORMING PART OF THE ACCOUNTS

ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES	CONSOLIDATED AND PARENT	CONSOLIDATED AND PARENT
	1991 \$000	1990 \$000
<b>3. Directors' and Executives' Remuneration</b> (continued)		
<b>(iii) Retirement Benefits</b>		
Amounts paid by the Company and related corporations (including North Broken Hill Peko Limited) to superannuation funds and directors in respect of the directors, alternate directors and principal executive officers' retirement	<u>53</u>	<u>113</u>
Amounts are shown in aggregate as the directors believe the provision of full particulars would be unreasonable.		
<b>4. Income Tax</b>		
Income tax is calculated as follows:		
Operating profit before income tax	<u>101 604</u>	<u>125 830</u>
Tax calculated at 39%	<u>39 625</u>	49 074
Tax effect of permanent differences		
Amortisation of Ranger Project Rights and other non-allowable items	4 974	7 749
Back-to-back hedge losses (Note 5)	-	1 953
<i>Prima facie</i> tax adjusted for permanent differences	<u>44 599</u>	58 776
Income tax overprovided in prior year	<u>(1 380)</u>	-
Abnormal items		
Interest on contested income tax (Note 6)	-	9 552
Writeback of contested income tax (Notes 5 & 6)	<u>(15 665)</u>	-
Income tax expense on operating profit	<u>27 554</u>	<u>68 328</u>
<b>5. Extraordinary Items</b>		
Writeback of contested income tax	<u>47 326</u>	-
Following the audit of the Company's affairs carried out by the Australian Taxation Office in 1987 and 1988 referred to in Note 5 of the 1989 and 1990 accounts, the Company was in dispute with the Commissioner of Taxation regarding the income tax liabilities of the Company for the years 1984 to 1989 inclusive. The Company took a prudent approach to the dispute and provided for the full amount of primary		tax in dispute and interest totalling \$92 991 000 by 30 June 1990. This dispute was settled in full on 28 June 1991 with payments totalling \$30 000 000 to the Australian Taxation Office. The balance of \$62 991 000 was written back to the profit and loss account on the following basis: i) \$15 665 000 as abnormal; ii) \$47 326 000 as extraordinary.



## NOTES TO AND FORMING PART OF THE ACCOUNTS

ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES	CONSOLIDATED AND PARENT	CONSOLIDATED AND PARENT
	1991 \$000	1990 \$000
<b>6. Abnormal Items</b>		
The operating profit after income tax is arrived at after crediting and charging the following abnormal items:		
Credits:		
Refund from the Rehabilitation Trust Fund on the reassessment of the cost to rehabilitate the Ranger Project Area	–	15 427
Amounts provided for the Rehabilitation Trust Fund in the 1988 and 1989 accounts no longer required	–	6 224
Abnormal items before income tax	–	21 651
Income tax attributable to abnormal items	–	8 444
Abnormal items after income tax	–	13 207
Amount provided for contested income tax no longer required (Note 4)	15 665	–
Charges:		
Interest on contested income tax included in income tax (Note 4)	–	9 552
<b>7. Cash</b>		
Cash at banks and on hand	597	21 180
Short-term deposits (at call)	4 000	–
	<u>4 597</u>	<u>21 180</u>
<b>8. Current Assets – Receivables</b>		
Amount owing from holding company	16	–
Trade debtors <sup>a</sup>	76 453	60 058
Other debtors <sup>b</sup>	3 419	18 529
Less provision for doubtful debts	12	12
	<u>79 876</u>	<u>78 575</u>
Amounts receivable in foreign currencies included above (Australian dollar equivalents are shown):		
United States dollars – Unhedged <sup>c</sup>	<u>68 308</u>	<u>60 058</u>
<sup>a</sup> Bad debts written off against provisions: \$Nil (1990:\$Nil)		
<sup>b</sup> Bad debts written off against provisions: \$Nil (1990:\$Nil)		
<sup>c</sup> The corresponding amount in United States dollars for Trade debtors is \$52 522 000 (1990: \$47 140 000)		
<b>9. Current Assets – Inventories</b>		
Stores	12 788	12 860
Less provision for obsolescence	1 033	875
	<u>11 755</u>	<u>11 985</u>
Ore stockpile	23 981	21 049
Work in progress	2 266	796
Finished product U <sub>3</sub> O <sub>8</sub>	77 153	63 157
At cost	<u>115 155</u>	<u>96 987</u>



## NOTES TO AND FORMING PART OF THE ACCOUNTS



ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES	CONSOLIDATED AND PARENT	CONSOLIDATED AND PARENT
	1991 \$000	1990 \$000
<b>10. Current Assets – Other</b>		
Short-term deposits	3 983	3 981
Prepayments	6 838	5 685
	<u>10 821</u>	<u>9 666</u>
<b>11. Non-Current Assets – Receivables</b>		
Term debtors	–	1 813
<b>12. Non-Current Assets – Property, Plant and Equipment</b>		
Land – cost	1	1
Building – cost	93 777	92 941
Less provision for depreciaton	28 029	24 956
	<u>65 748</u>	<u>67 985</u>
Plant and equipment – cost	337 513	327 140
Less provision for depreciation	110 602	95 445
	<u>226 911</u>	<u>231 695</u>
Plant and equipment – leased	3 960	7 294
Less accumulated amortisation	3 392	5 742
	<u>568</u>	<u>1 552</u>
Total property, plant and equipment	<u>293 228</u>	<u>301 233</u>
<p>In accordance with Clause 32(2) of Schedule 5, the directors believe the above values assigned to land and buildings appropriately reflect current values based on their existing use.</p>		
<b>13. Non-Current Assets – Other</b>		
Ranger Project Rights – cost	407 000	407 000
Less accumulated amortisation	82 921	69 247
	<u>324 079</u>	<u>337 753</u>
Share issue expenses – cost	3 158	3 158
Borrowing costs – cost	5 592	5 592
	<u>8 750</u>	<u>8 750</u>
Less accumulated amortisation	8 750	8 466
	<u>–</u>	<u>284</u>
	<u>324 079</u>	<u>338 037</u>

The Ranger Project Rights were acquired from the former Ranger joint venturers. These included rights to receive and sell the concentrates produced from the Ranger Project Area and the benefits of long-term sales contracts previously arranged by certain of the former venturers.

NOTES TO AND FORMING PART OF THE ACCOUNTS

ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES	CONSOLIDATED AND PARENT	CONSOLIDATED AND PARENT
	1991 \$000	1990 \$000
<b>14. Current Liabilities – Creditors and Borrowings</b>		
Unsecured:		
Current maturities of long-term loans		
Notes and bills payable	–	25 481
Finance lease liabilities	1 239	1 494
Bank overdraft	1 556	1 145
Amount owing to holding company	–	9
Amount owing to related corporation	113	30
	<u>2 908</u>	<u>28 159</u>
Trade creditors	9 387	4 164
Other creditors	8 438	8 402
	<u>17 825</u>	<u>12 566</u>
	<u>20 733</u>	<u>40 725</u>
Current maturities of long-term loans included above are repayable in the following currencies (Australian dollar equivalents are shown): United States dollars – Unhedged <sup>a</sup>	–	25 481

<sup>a</sup>The corresponding amounts in United States dollars are \$Nil (1990: \$20 000 000)

<b>15. Current Liabilities – Provisions</b>		
Employee entitlements	2 872	2 458
Maintenance	191	205
Dividend	20 500	20 500
Income tax	49 686	147 175
	<u>73 249</u>	<u>170 338</u>

<b>16. Non-Current Liabilities – Creditors and Borrowings</b>		
Unsecured:		
Notes and bills payable	52 022	38 221
Term creditors	31 248	24 706
Finance lease liabilities	85	1 345
	<u>83 355</u>	<u>64 272</u>
Non-current borrowings included above are repayable in the following currencies (Australian dollar equivalents are shown): United States dollars – Unhedged <sup>a</sup>	52 022	38 221

<sup>a</sup>The corresponding amounts in United States dollars are \$40 000 000 (1990: \$30 000 000).



N O T E S   T O   A N D   F O R M I N G   P A R T   O F   T H E   A C C O U N T S



ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES	CONSOLIDATED AND PARENT	CONSOLIDATED AND PARENT
	1991 \$000	1990 \$000
<b>17. Non-Current Liabilities – Provisions</b>		
Employee entitlements	1 598	1 012
Deferred income tax	<u>103 652</u>	<u>106 351</u>
	<u>105 250</u>	<u>107 363</u>

The provision for deferred income tax arises from certain costs being allowable for income tax purposes earlier than the time when the corresponding charge is made against book profits. Deductions under Division 10 and Section 51 of the *Income Tax Assessment Act 1936* are the main factors.

**18. Share Capital**

Authorised capital comprises:

750 000 000 shares of \$1.00 each	<u>750 000</u>	<u>750 000</u>
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Issued and paid up capital comprises:

307 500 000 A Class shares of \$1.00 each fully paid	307 500	307 500
61 500 000 B Class shares of \$1.00 each fully paid	61 500	61 500
41 000 000 C Class shares of \$1.00 each fully paid	<u>41 000</u>	<u>41 000</u>
	<u>410 000</u>	<u>410 000</u>

The B and C Class shares rank *pari passu* with the A Class shares except that the B and C Class shares have limitations, restrictions and special rights as to conversion, quotation and disposal of shares and voting in specified matters.

**19. Foreign Currency**

The Group has sales proceeds in United States dollars exceeding repayments of borrowings, interest and other costs in United States dollars.

Foreign currency options and hedge contracts which were entered into during the year for United States dollars in respect of sales proceeds increased revenue

for the year by \$A 3 077 000 (1990: reduced revenue by \$A 1 205 000).

The net exchange loss included in the profit and loss account for the year on the holding of net foreign monetary assets was \$A 1 004 000 (1990: \$A 794 000).

NOTES TO AND FORMING PART OF THE ACCOUNTS

ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES	CONSOLIDATED AND PARENT	CONSOLIDATED AND PARENT
	1991 \$000	1990 \$000
<b>20. Commitments</b>		
<b>(a) Commitments for capital expenditure</b>		
Aggregate capital expenditure contracted for, but not provided for in the accounts		
Not later than one year	<u>473</u>	<u>449</u>
<b>(b) Lease and Hire Commitments</b>		
(i) Operating Leases – Offices		
Aggregate of amounts contracted but not provided for in the accounts	<u>8 532</u>	<u>6 554</u>
Due within 1 year	939	721
Due between 1-2 years	939	721
Due between 2-5 years	2 733	2 147
Due after 5 years	<u>3 921</u>	<u>2 965</u>
	<u>8 532</u>	<u>6 554</u>
(ii) Finance Leases		
Aggregate amount contracted for in respect of finance leases (plant and equipment) is capitalised in the accounts in accordance with the accounting policies		
Total lease liability		
current	1 240	1 494
non-current	<u>85</u>	<u>1 345</u>
	<u>1 325</u>	<u>2 839</u>
Finance lease commitments		
Due within 1 year	1 380	1 796
Due between 1-2 years	86	1 400
Due between 2-5 years	–	86
Minimum lease payments	1 466	3 282
Less future finance charges	<u>141</u>	<u>443</u>
	<u>1 325</u>	<u>2 839</u>



**(c) ERA is liable to make payments to the Commonwealth as listed below:**

(i) an amount equal to the sum payable by the Commonwealth to the Northern Land Council pursuant to the Section 44 Agreement (*Aboriginal Land Rights (N.T.) Act 1976*). This amounts to \$200 000 per annum during the currency of the Agreement;

(ii) amounts equal to the sums payable by the Commonwealth to the Aboriginals Benefit Trust Account pursuant to Section 63(5) of the *Aboriginal Land Rights (N.T.) Act 1976*. These amounts are calculated as though they were royalties payable pursuant to the *Mining Act 1980 of the Northern Territory* and represent 4.25% of net sales revenue (1991: \$7 998 000/1990: \$8 474 000);

(iii) amounts equal to sums payable by the Commonwealth to the Northern Territory pursuant to an understanding in respect of financial arrangements between the Commonwealth and the Government of the Northern Territory. These amounts are also calculated as though they were royalties and the relevant rate is 1.25% (1991: \$2 352 000/1990: \$2 493 000);

(iv) amounts equal to 2% (or such other rate as the Minister of State for the time being administering Section 41 of the *Atomic Energy Act 1953* may determine) of the payments received by the Company in respect of sales of uranium concentrates. These amounts are credited to the Ranger Rehabilitation Trust Fund to provide for rehabilitation of the mine site when the fund is in deficit.

## NOTES TO AND FORMING PART OF THE ACCOUNTS

**21. Contingent Liabilities**

ERA has given to the Commonwealth Government an undertaking to rehabilitate the Ranger Project Area after cessation of mining operations.

The latest estimated cost of rehabilitation (including a 10% contingency), should ERA have been required to cease mining, was \$51 353 000 at 31 March 1991 (1990: \$50 411 000) whilst the balance of the Ranger Rehabilitation Trust Fund was \$52 739 000 at 30 June 1991 (1990: \$51 832 000).

The Northern Land Council has taken legal proceedings against the Commonwealth of Australia and ERA to have the Agreement for Mining under Section 44 of the *Aboriginal Land Rights (N.T.) Act 1976* set aside. The

matter came before the High Court and has now been remitted to the Federal Court and may take some time to be resolved. Legal advice indicates the proceedings will be resolved in favour of the Company.

Under certain conditions when the minimum price as approved by the Minister for Primary Industries and Energy of the Commonwealth of Australia exceeded the contract price as set out in the sale agreements with certain customers, the customer became entitled to a credit and/or sacrifice which will reduce the contract price and when the contract price exceeds the minimum price of  $U_3O_8$ .

ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES	CONSOLIDATED AND PARENT	CONSOLIDATED AND PARENT
	1991 \$000	1990 \$000

**22. Financial Reporting by Segments**

The Company is solely a uranium miner and producer operating in Australia. Revenue is derived from customers in the following geographical areas:

United States	23 977	19 530
Japan	70 997	71 371
Korea	29 609	17 751
Europe	85 824	98 246
	<u>210 407</u>	<u>206 898</u>
Sales revenue included above from shareholder-customers	<u>136 775</u>	<u>153 836</u>

All operating expenditure is incurred in one geographical area and the assets are based in Australia.

**23. Dividends**

Franked dividends paid during the period, provided in the previous period	20 500	20 500
Franked dividends provided and paid for in this period	20 500	20 500
Dividends provided which will, when paid, be franked out of franking credits which will arise from income tax payments in the following period	20 500	20 500
Unappropriated profits and reserves which could be distributed as franked dividends using franking credits already in existence or which are expected to arise from income tax payments in the following period	132 646	54 793

NOTES TO AND FORMING PART OF THE ACCOUNTS

	PLACE OF INCORPORATION	PARENT INVESTMENT AT COST \$
<b>24. Investments</b>		
<b>(a) Shares in subsidiary companies</b>		
Canadian Jabiru Holdings Ltd	Canada	2
E.R.A. (Canberra) Limited	Australian Capital Territory	5
Ranger Export Development Company Pty Ltd	New South Wales	20
Ranger Uranium Mines Pty Ltd	New South Wales	20
		<u>47</u>



The above subsidiaries are wholly owned. The operations of the subsidiaries did not result in a profit or a loss and no dividends were paid to the parent company.

**(b) Loan to subsidiary company**

Unsecured subordinated loan to E.R.A. (Canberra) Limited \$689 (1990: \$75 717).

**(c) Acquisition of a subsidiary**

On 11 October 1990 Energy Resources of Australia Ltd incorporated Canadian Jabiru Holdings Ltd under the *Canada Business Corporations Act*.

**25. Superannuation Benefits and Commitments**

Staff are entitled after serving a qualifying period to benefits on retirement, disability or death. The superannuation plans provide defined benefits based on years of service and final average salary. Employees contribute to the plans at various percentages of their wages and salaries. The Company also contributes to the plan. The Company's contributions are legally enforceable up to the date upon which any such obligation is terminated by appropriate action

pursuant to the trust deed.

An actuarial assessment of the plan was last made as at 1 July 1990 by W E Walker FIAA of William M Mercer Campbell Cook & Knight Pty Ltd. According to the assessment, at the time of the assessment, funds were available to satisfy all benefits that would have been vested under the plan in the event of the termination of the plan, or the voluntary or compulsory termination of employment of each employee member.

**26. Related Parties**

Related parties of Energy Resources of Australia Ltd fall into the following categories:

**Subsidiaries**

Information relating to subsidiaries is set out in Note 24.

**Ultimate Holding Company**

The ultimate holding company is North Broken Hill Peko Limited (incorporated in Victoria, Australia)

which owns 65.1% of the issued ordinary shares of the Company.

**Directors**

Information relating to directors is set out in Note 27.

**Superannuation Fund**

Information relating to the Group's superannuation fund is set out in Note 25.

ENERGY RESOURCES OF AUSTRALIA LTD AND SUBSIDIARIES	CONSOLIDATED AND PARENT	CONSOLIDATED AND PARENT
	1991	1990
	\$000	\$000

**Transactions With Related Parties**

The aggregate amounts of each different type of transaction with related parties, other than wholly owned subsidiaries and transactions with directors set out in Note 3 were as follows:

Dividends paid/payable to the ultimate holding company	26 691	26 691
Foreign exchange hedge transactions		
with ultimate holding company-gain/(loss)	—	(2 038)
Interest paid to ultimate holding company	86	—

NOTES TO AND FORMING PART OF THE ACCOUNTS



**27. Information on Directors**

The names of persons who were directors of the parent company at any time during the financial year are as follows: R L Baillieu (Dr D R Stewart, Alternate); G W Forster (M W Broomhead, Alternate); T Inoue (S Sato/K Nawa/K Hashikawa, Alternates); R Knight; Dr E Miller (M W Broomhead, Alternate);

A L Morokoff AO; Sir Rupert Myers KBE; M Shibata (S Sato/K Nawa/K Hashikawa, Alternates); P H Wade (Dr D R Stewart, Alternate); H Weise (W H J Barr, Alternate).

Interest of directors and alternate directors in the share capital of the Company and related companies as at 30 August 1991 (beneficially held unless otherwise shown)

DIRECTOR	ERA	NORTH
R L Baillieu	10 000	1 434 516 319 768 (non beneficially held)
M W Broomhead	—	2 000 250 000 Options
G W Forster	5 000	34 668 450 000 Options
R Knight	—	121 813 300 000 Options
Dr E Miller	—	4 562 450 000 Options
A L Morokoff AO	5 000	—
Sir Rupert Myers KBE	2 000	—
Dr D R Stewart	—	2 880
P H Wade	2 000	9 644 750 000 Options
H Weise	—	1 000

Key:

ERA Energy Resources of Australia Ltd – shares of \$1 each fully paid.  
 NORTH North Broken Hill Peko Limited – shares of 50c each fully paid.  
 (Options to subscribe for shares of 50c each fully paid under the North Broken Hill Share Option Incentive Plan.)

**28. Post Balance Date Events**

On 21 August 1991 the Company acquired the Jabiluka uranium resource from Pancontinental Mining Limited

for A\$125 000 000. The acquisition will be funded by debt through a bridging finance arrangement.

## STATUTORY STATEMENTS

### Statement by Directors

Energy Resources of Australia Ltd  
(Incorporated in the Australian Capital Territory)  
In the opinion of the directors:

- (a) the accounts of the Company and of the Group, set out on pages 31 to 44, are drawn up so as to give a true and fair view of the state of affairs as at 30 June 1991, and the profit for the year ended on that date, of the Company and of the Group so far as they concern members of the Company;
- (b) at the date of this statement there are reasonable grounds to believe that the Company will be able to pay its debts as and when they fall due; and
- (c) the accompanying accounts of the Company and of the Group have been made out in accordance with Statements of Accounting Concepts and all applicable Accounting Standards except that \$47 326 000 of the writeback of the previously contested income tax attributable to prior years

has been shown as an extraordinary item in the profit and loss account. We believe this departure from Approved Accounting Standard, ASRB1018 'Profit and Loss Accounts', is appropriate because of the nature of the item, the period to which it related (1982 to 1989) and the fact that the corresponding initial charge to the profit and loss account was treated as an extraordinary item.



Signed at Sydney this 30th day of August 1991 in accordance with a resolution of the directors.

AL Morokoff AO  
Director

R Knight  
Director

### Auditors' Report

Auditors' Report to the Members of Energy Resources of Australia Ltd  
(Incorporated in the Australian Capital Territory)

We have audited the accounts and Group accounts set out on pages 31 to 45 in accordance with Australian Auditing Standards.

In our opinion the accounts of Energy Resources of Australia Ltd and the Group accounts are properly drawn up:

- (a) so as to give a true and fair view of:
  - (i) the state of affairs of the Company and of the Group as at 30 June 1991 and of the results of the Company and of the Group for the year ended on that date so far as they concern members of the Holding Company; and
  - (ii) the other matters required by Division 4 of Part 3.6 of the Corporations Law to be dealt with in the accounts and in the Group accounts;
- (b) in accordance with the provisions of the Corporations Law; and

- (c) in accordance with Statements of Accounting Concepts and applicable Accounting Standards except that \$47 326 000 of the writeback of the previously contested income tax attributable to prior years has been shown as an extraordinary item in the profit and loss account. In our opinion, this is a departure from Approved Accounting Standard ASRB1018 'Profit and Loss Accounts', as that standard does not permit such treatment for an item of this nature. However, we believe that because of its nature, the period to which it related (1982 to 1989) and the fact that the corresponding initial charge to the profit and loss account was treated as an extraordinary item, the credit should not impact the operating profit after tax for the current year. We therefore concur with the departure.

COOPERS & LYBRAND  
Chartered Accountants

by M J Sharpe  
Sydney, 30 August 1991

## S T O C K   E X C H A N G E   I N F O R M A T I O N

## Twenty Largest Shareholders of A Class Ordinary Shares as at 15 August 1991

SHAREHOLDERS	SHARES HELD
Peko Wallsend Ltd	136 329 100
North Broken Hill Peko Limited	130 570 600
Pendal Nominees Pty Ltd	6 547 589
CTB Nominees Ltd	5 522 200
Government Insurance Office of New South Wales	2 320 611
State Authorities Superannuation Board	1 870 224
Perpetual Trustees Victoria Ltd	1 482 850
MLC Life Limited	1 244 067
Australian Mutual Provident Society (Account No. 1)	1 144 576
Australian Mutual Provident Society (Account No. 2)	940 900
ANZ Nominees Limited	767 186
Permanent Trustee Co Ltd	536 900
Perpetual Trustee Co Ltd	489 630
Barclays Australia Custodian Services Limited	474 600
BT Custodians Ltd	437 400
Clipper Investments Ltd	374 900
Bank of New South Wales Nominees Pty Ltd	297 060
Icianz Pension Fund Sec Pty Ltd	282 400
National Nominees Ltd	245 272
Eagle Star Trustees Ltd	207 600
<b>Total of top twenty holdings</b>	<b>292 085 665</b>

The proportion of A Class Ordinary Shares held by the twenty largest shareholders is 94.98%

## Register of Substantial Shareholders as at 15 August 1991

SHAREHOLDERS	SHARES HELD
A Class Ordinary Shareholders	
Peko Wallsend Ltd	136 329 100
North Broken Hill Peko Limited*	266 899 700
B Class Ordinary Shareholders	
Rheinbraun Australia Pty Ltd	25 625 000
UG Australia Developments Pty Ltd	16 400 000
Interuranium Australia Pty Ltd	10 250 000
C Class Ordinary Shareholders	
Japan Australia Uranium Resources Development Co Ltd	41 000 000

\* By a notice of change in interest of substantial shareholders dated 29 May 1986 received from North Broken Hill Holdings Limited, ERA was informed that North Broken Hill Holdings Limited has a relevant interest in all A Class ordinary shares held

by Peko Wallsend Ltd and all the B Class shares and C Class shares on issue. The relevant interest is said to have arisen under an agreement and a series of instruments entered into by ERA with its shareholders between September 1980 and December 1981.



## STOCK EXCHANGE INFORMATION

Information pursuant to Australian Associated Stock Exchanges Listing Requirement 3c.

### Entitlement to Votes (Article 85)

Subject to any rights or restrictions for the time being attached to any shares on a show of hands, every member present in person or by proxy or by attorney or by representative and entitled to vote shall have one vote.

On a poll, every member present in person or by proxy or by attorney or by representative shall have one vote for each share held by him/her.

### Stock Exchange Listing

ERA shares are listed on the exchanges of the Australian Associated Stock Exchanges. The home exchange is the Sydney Stock Exchange Ltd.



### Distribution of Shareholders as at 15 August 1991

#### (a) A Class Ordinary Shareholders Equal to 75.0% of the issued capital

	NUMBER OF SHAREHOLDERS	%	NUMBER OF SHARES	%
1-99	15	0.1	690	0.0
100-1 000	13 236	85.3	5 016 912	1.6
1 001-5 000	1 899	12.2	4 565 535	1.5
5 001-10 000	215	1.4	1 622 942	0.5
over 10 000	148	1.0	296 293 921	96.4
	15 513	100.0	307 500 000	100.0

There were 15 holders of less than a marketable parcel of ordinary shares.

#### (b) B Class Ordinary Shareholders Equal to 15.0% of the issued capital

Rheinbraun Australia Pty Ltd	25 625 000	41.6
UG Australia Developments Pty Ltd	16 400 000	26.7
Interuranium Australia Pty Ltd	10 250 000	16.7
Cogema Australia Pty Ltd	5 125 000	8.3
OKG Aktiebolag	4 100 000	6.7
	61 500 000	100.0

#### (c) C Class Ordinary Shareholders Equal to 10.0% of the issued capital

Japan Australia Uranium Resources Development Co Ltd	41 000 000	100.0
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<b>Total Issued Capital</b>	410 000 000	100.0
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### Share Registries

#### New South Wales

C/- Professional Share Registries (NSW) Pty Ltd  
Ground Floor, 414 Pitt Street  
Sydney NSW 2000  
Telephone: (02) 211 5299

#### Australian Capital Territory

C/- Professional Share Registries (NSW) Pty Ltd  
C/- Houston & Hanna  
Suite 15, George Turner House  
11 McKay Gardens, Turner  
Canberra City ACT 2061  
Telephone: (062) 49 8515

#### Victoria

C/- Professional Share Registries (NSW) Pty Ltd  
C/- Bishop Connelly & Duncan  
3rd Floor, 11 Bank Place  
Melbourne VIC 3000  
Telephone: (03) 670 0206

## FINANCIAL SUMMARY

(SINCE OPERATIONS BEGAN)

YEAR ENDED 30 JUNE	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Sales Revenue (\$000)	210 407	206 898	177 516	251 300	234 263	222 513	233 779	246 136	261 178	145 992
Profit Before Tax (\$000)	101 604	125 830	80 630	131 055	108 085	98 415	109 852	113 021	113 362	45 579
Income Tax Expense (\$000)	27 554	68 328	42 876	67 985	49 197	47 991	53 395	55 534	55 969	7 721
Profit After Tax (\$000)	74 050	57 502	37 754	63 070	58 888	50 424	56 457	57 487	57 393	37 858
Total Assets (\$000)	827 756	847 491	882 081	914 622	953 479	883 608	927 487	941 128	943 226	953 880
S'hlds' Equity (\$000)	545 169	464 793	448 291	546 939	500 164	489 469	480 045	464 588	458 351	434 458
Long-term Debt (\$000)	52 107	39 566	102 821	82 953	125 302	179 036	191 261	242 264	293 267	344 270
Current Ratio	2.24	0.98	1.10	1.41	1.43	1.68	1.33	1.48	1.53	1.13
Liquid Ratio	0.96	0.49	0.56	0.91	0.94	1.13	1.04	1.21	1.27	0.88
Gearing (%)	13.3	12.1	22.2	15.1	20.5	26.8	28.5	34.3	39.0	44.2
Interest Cover (times)	19.6	12.6	5.2	6.6	4.5	3.3	3.1	3.2	2.9	1.9
Return on S'hlds' Equity (%)	14.7	12.6	7.6	12.0	11.9	10.4	12.0	12.5	12.9	8.9
Earnings/Share (cents)	18.1	14.0	9.2	15.4	14.4	12.3	13.8	14.0	14.0	9.2
Dividends/Share (cents)	10.0	10.0	15.0	10.0	10.0	10.0	10.0	12.5	10.0	4.0
Payout Ratio (%)	55.4	71.3	162.9	65.0	69.6	81.3	72.6	89.2	58.4	35.4
Share Price (\$)	1.47	2.00	2.32	2.80	2.70	1.50	1.45	1.40	1.45	1.55
Price-Earnings Ratio	8.1	14.3	25.2	18.2	18.8	12.2	10.5	10.0	10.4	16.8
Dividend Yield (%)	6.8	5.0	6.5	3.6	3.7	6.7	6.9	8.9	6.9	2.6
Net Tangible Assets per share (\$)	1.33	1.13	1.09	1.33	1.22	1.19	1.17	1.13	1.12	1.06
No. of employees	339	340	354	374	414	409	421	429	404	414
Profit After Tax per empl (\$000)	218.4	169.1	106.6	168.6	142.2	123.3	134.1	134.0	142.1	91.4

### Definitions of Statistical Ratios:

Current Ratio	= current assets/current liabilities
Liquid Ratio	= (current assets – inventory – prepayments)/ (current liabilities – bank overdraft)
Interest Cover	= earnings before interest and tax/interest expense
Return on S'hlds' Equity	= profit after tax/average shareholders' equity
Earnings/Share	= profit after tax/number of shares issued
Dividends/Share	= dividend paid/number of shares issued
Payout Ratio	= dividends paid/profit after tax
Price-Earning Ratio	= share price/earnings per share
Dividend Yield	= dividend per share/share price
Net Tangible Assets per share	= net assets/number shares issued

## DIRECTORS

AL Morokoff AO      Chairman  
PH Wade            Deputy Chairman  
RL Baillieu  
GW Forster  
R Knight              Chief Executive  
Dr E Miller  
Sir Rupert Myers  
M Shibata  
H Weise

## SECRETARIES

WF James  
RG Kemp

## MANAGEMENT

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R Knight	Chief Executive
RA Cleary	General Manager – Operations
JW Farthing	Manager – Darwin
PE McNally	Manager – Environment
SS Solomons	Manager – Operations

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DC Haigh	General Manager – Commercial
WF James	Controller

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KW Lonie	General Manager – Technical Services
PA Baily	Manager – Metallurgy

---

PJ Shirvington	General Manager – Marketing
WA Davies	Manager – Marketing

---

## AUDITORS

Coopers and Lybrand

## BANKERS

Commonwealth Bank of Australia  
Westpac Banking Corporation

R E G I S T E R E D   O F F I C E

C/- Mallesons Stephen Jaques

Advance Bank Centre

60 Marcus Clarke Street

Canberra City

ACT 2601

Telephone (062) 68 3900

P R I N C I P A L   O F F I C E

Level 18, Gateway

1 Macquarie Place

Sydney NSW 2000

Telephone (02) 256 8900

Facsimile (02) 251 1817

P O S T A L   A D D R E S S

GPO Box 4039

Sydney NSW 2001



#### BOARD OF DIRECTORS

*Mr A L Morokoff* AO, the Chairman since foundation in 1980, is an electrical engineer. He is Chairman of Australia Telecommunications Corp and the Parliament House Construction Authority and Deputy Chairman of Lend Lease Corporation Ltd. He is also Governor of the Wild Life Foundation, Deputy Chairman of Work Skill Australia and Director of IBM Australia Ltd.

*Mr R L Baillieu*, became a Director of ERA in December 1987. He is Deputy Chairman of North Broken Hill Peko Ltd and also a Director of the National Commercial Union Ltd.

*Mr G W Forster*, an accountant and Director of Corporate Affairs for North Broken Hill Peko Ltd became a Director of ERA in May 1988.

*Mr T Inoue*, nominated by holders of 'C' Class Shares, was appointed a Director of ERA in June 1987. He is President and a Director of Japan Australia Uranium Resources Development Co Ltd (JAURD).

*Mr R Knight*, a mining engineer, was appointed a Director of ERA in May 1989. He is Chief Executive of ERA and was formerly a Group Executive of Peko-Wallsend Ltd.

*Dr E Miller*, a mining engineer, was appointed a Director of ERA in July 1986. He was formerly a Group Executive of Peko-Wallsend Ltd and Executive Director of Robe River Mining Co Pty Ltd. At the beginning of 1989 he was appointed Director - Mining and Industrial of North Broken Hill Peko Ltd and is a Director of Pasminco Ltd.

*Sir Rupert Myers* KBE, a metallurgist, has been a Director since 1981. He is the Chairman of the New South Wales State Pollution Control Commission and a former Vice-Chancellor of the University of New South Wales. He is also Chairman of Mega Resources Limited, Technoproduct Holdings Ltd, Australian Pastoral Management Ltd and Unisearch Limited. Other directorships include CSR Ltd, IBM Australia Ltd, Winston Churchill Memorial Trust in Australia, James N Kirby Foundation, A W Tyree Foundation and Earthwatch Australia.

*Mr P H Wade*, an accountant, joined the Board of ERA in March 1987 and is Managing Director of North Broken Hill Peko Ltd. He is also a Commissioner of the Commonwealth Serum Laboratories, a Director of Pasminco Ltd and Gunns Kilndried Timber Industries Ltd.

*Mr H Weise*, a mining engineer, was nominated by holders of 'B' Class Shares, in December 1987. He is Managing Director of Rheinbraun Australia Pty Ltd.

#### DIRECTORS

AL Morokoff AO

*Chairman*

RL Baillieu

GW Forster

T Inoue

R Knight

*Chief Executive*

Dr E Miller

Sir Rupert Myers KBE

PH Wade

H Weise

#### SECRETARIES

WF James

RG Kemp

#### GENERAL MANAGERS

RA Cleary

*Operations*

DC Haigh

*Commercial*

PJ Shirvington

*Marketing*

#### MANAGERS

WA Davies

*Marketing*

JW Farthing

*Darwin*

AR Henderson

*Special Projects*

WF James

*Controller*

P McNally

*Environment*

#### REGISTERED OFFICE

c/- Mallesons Stephen Jaques

Advance Bank Centre

60 Marcus Clarke Street

Canberra City

ACT 2601

Telephone (062) 68 3900

#### PRINCIPAL OFFICE

20 Bond Street

Sydney NSW 2000

#### POSTAL ADDRESS

GPO Box 4039

Sydney NSW 2001

#### AUDITORS

Coopers & Lybrand

#### BANKERS

Commonwealth Bank of Australia

Westpac Banking Corporation

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#### NOTICE OF MEETING

This report is to be presented at the Annual General Meeting of members of Energy Resources of Australia Ltd (ERA) in the Fort Macquarie Room of the Inter-Continental Hotel, 117 Macquarie Street Sydney at 10:00 a.m. on Thursday, 19 October 1989.

A Notice of Meeting and Proxy Form is enclosed.



*Right:* Aerial view of Ranger mine.  
The township of Jabiru can be seen in the distance.

# NOTICE OF MEETING

Energy Resources of Australia Ltd

A.C.N. 008 550 865

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Notice is hereby given that the Annual General Meeting of the Members of Energy Resources of Australia Ltd (ERA) will be held in the Fort Macquarie Room, Inter-Continental Hotel, 117 Macquarie Street, Sydney on Thursday, 17 October 1991 at 10 a.m.

## Ordinary Business

1. To receive and consider the Profit and Loss Account of the Company for the year ended 30 June, 1991 and the Balance Sheet of the Company as at that date together with group accounts of the Company and its subsidiaries and the reports of the Directors and of the Auditors thereon.
2. To elect three directors:
  - i) Dr E Miller retires by rotation, in accordance with Article 111 of the Company's Articles of Association;
  - ii) Mr P H Wade retires by rotation, in accordance with Article 111 of the Company's Articles of Association;
  - iii) Mr R Knight retires by rotation, in accordance with Article 111 of the Company's Articles of Association.

The retiring directors, being eligible, offer themselves for re-election.

## Special Business

3. Flexible Accelerated Security Transfer System (FAST)  
To consider and, if thought fit, to pass the following resolution as a Special Resolution —  
"That the Articles of Association of the Company be altered by:
  - a) inserting the following sentence at the end of Article 16 —  
'Notwithstanding the foregoing, the Company will not be required to issue or deliver any certificate for the shares held by a member and may cancel a certificate without issuing a certificate in lieu thereof where the non issue or delivery of a certificate is permitted by law and is at the request of the person entitled to the certificate.'
  - b) deleting Article 41 and substituting the following Article 41 —  
'Every instrument of transfer shall be left at the Office or at the place where a share register is kept accompanied by such evidence as the Directors may require to prove the title of the transferor or his right to transfer the shares and such evidence shall include the certificate for the shares to be transferred where such a certificate has been issued and has not subsequently been cancelled provided that the Directors may waive the production of any certificate upon evidence satisfactory to them of its loss or destruction. No fee shall be charged for registration of a transfer.'

By Order of the Board

W F James

Secretary

13 September, 1991

# EXPLANATORY NOTE SPECIAL BUSINESS

## **Flexible Accelerated Security Transfer System (FAST)**

The Australian Stock Exchange is extending a pilot system known as the Flexible Accelerated Security Transfer System (FAST). By adopting this system, a faster and more efficient settlement of purchases and sales of the Company's securities will be possible.

Under FAST, shareholders may elect to maintain their holding in an uncertificated form provided that they are either an institutional participant or sponsored through a stockbroker. Shareholders who elect to participate will not receive share certificates but will receive from the company monthly statements listing purchases and sales since the previous statement was issued.

Share certificates will still be issued to shareholders other than those who elect to participate in FAST.

ERA has agreed to be included in the extension of the pilot system and expects to commence participating during October 1991.

Declarations made by the Australian Securities Commission pursuant to section 1113(6) of the Corporations Law —

- a) remove the requirement that the Company issue share certificates in respect of shares held as "uncertificated securities holdings"; and
- b) introduce new forms of transfer to allow for on-market transfers of shares without accompanying share certificates.

The amendments to the Articles of Association are required to accommodate the operation of an uncertificated securities holding under FAST.

Shareholders should not destroy any share certificate, as shares may only be held in an uncertificated form by either a member who is an institutional participant or is sponsored by a stockbroker and who has agreed that their shares be held in an uncertificated form.

**P R O X Y   F O R M**

Energy Resources of Australia Ltd

A.C.N: 008 550 865

Registered Office:

c/o Mallesons Stephen Jaques

Advance Bank Centre

60 Marcus Clarke Street

Canberra City, ACT, 2601

I, \_\_\_\_\_ of \_\_\_\_\_

being member no. \_\_\_\_\_ of Energy Resources of Australia Ltd

**Section A**

hereby appoint \_\_\_\_\_

of \_\_\_\_\_

or, failing him, the Chairman of the meeting as my proxy to vote for me and on my behalf at the Annual General Meeting of the Company to be held on the seventeenth day of October 1991 and at any adjournment thereof. The proxy so appointed shall represent all my voting rights except those (if any) specified in Section B below.

**Section B**

Do not complete Section B unless you wish to appoint two proxies and I further appoint \_\_\_\_\_

of \_\_\_\_\_ as my proxy to vote for me on my behalf at the said meeting and at any adjournment thereof. The proxy appointed by this Section B shall represent my voting rights in respect of \_\_\_\_\_ shares.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 1991

Usual Signature \_\_\_\_\_

Should you desire to direct your proxy how to vote please insert 'x' in the appropriate box against each item hereunder, otherwise your proxy will vote as he/she thinks fit or abstain from voting.

**Business**

- |                                      | for                      | against                  |
|--------------------------------------|--------------------------|--------------------------|
| 1. To adopt the reports and accounts | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. To elect as Director:             |                          |                          |
| (i) Dr E Miller                      | <input type="checkbox"/> | <input type="checkbox"/> |
| (ii) Mr P H Wade                     | <input type="checkbox"/> | <input type="checkbox"/> |
| (iii) Mr R Knight                    | <input type="checkbox"/> | <input type="checkbox"/> |

**Special Business**

- |                                                             |                          |                          |
|-------------------------------------------------------------|--------------------------|--------------------------|
| 3. To amend the Articles of Association to accommodate FAST | <input type="checkbox"/> | <input type="checkbox"/> |
|-------------------------------------------------------------|--------------------------|--------------------------|

see overleaf

**Notes**

- (i) A member entitled to attend and vote is entitled to appoint not more than two proxies to attend and vote instead of the member.
- (ii) Where more than one proxy is appointed, each proxy must be appointed to represent a specified proportion of the member's voting rights.
- (iii) A proxy need not be a member.
- (iv) The instrument appointing a proxy shall be in writing under the hand of the appointor or his/her attorney duly authorised in writing or if such appointor is a corporation under its common seal or the hand of its attorney.
- (v) To be effective, the instrument appointing a proxy and the power of attorney (if any) under which it is signed or an office copy or notarially certified copy thereof shall be deposited at the registered office not less than 48 hours before the time for the holding of the meeting or adjourned meeting (as the case may be).