

DEPARTMENT OF ATOMIC ENERGY — DEMANDS FOR GRANTS (1993-94)

FIRST REPORT



LOK SABHA SECRETARIAT NEW DELHI

April, 1993/Vaisakha, 1915 (Sakh),

FIRST REPORT

STANDING COMMITTEE ON ENERGY (1993-94)

(TENTH LOK SABHA)

DEPARTMENT OF ATOMIC ENERGY — DEMANDS FOR GRANTS (1993-94)



Presented to Lok Sabha on 29th April, 1993 Laid in Rajya Sabha on 29th April, 1993

> LOK SABHA SECRETARIAT NEW DELHI

April, 1993/Vaisakha, 1915 (Saka)

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	April, 1993	18

COMPOSITION OF THE STANDING COMMITTEE ON ENERGY (1993-94)

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Shri Jaswant Singh

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- 3. Shri Murli Deora
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- 1. Shri G.L. Batra
- 2. Shri K. M. Mittal
- 3. Shri R. K. Malik
- Additional Secretary
- Deputy Secretary
- Under Secretary

INTRODUCTION

- I, the Chairman of the Standing Committee on Energy (1993-94) having been authorised by the Committee to submit the Report on their behalf, present this First Report on the Demands for Grants (1993-94) of the Department of Atomic Energy.
- 2. The extension of Departmentally related Standing Committee System to all Ministries is yet another step in the evolution of Parliamentary control over the executive. Through this initiative the Hon'ble Speaker has opened the process of making the institution of Parliament as more purposeful.
- 3. Demands for Grants alongwith the Performance Budget of the Department of Atomic Energy for the current year i.e., 1993-94 have been examined by the Committee.
- 4. Considering the time constraint in which the Committee had to work, only a broad analysis of the budgetary trends in the Demands for Grants of the Department has been attempted.
- 5. The Report was considered and adopted by the Committee at their Sitting held on 26th April, 1993.

New Delhi;

April 28, 1993

Vaisakha 8, 1915 (Saka)

JASWANT SINGH Chairman, Standing Committee on Energy (1993-94).

CHAPTER I

INTRODUCTORY

The Department of Atomic Energy is of critical importance to the country. It is in direct charge, and has remained so eversince its inception, of the Prime Minister of the country. This department and its budget has never been examined in Parliament, though quite often there have been discussions on aspects of the functioning of the Department of Atomic Energy.

The Committee on Energy while addressing itself to an examination of this department is mindful of the sensitivity of it, as also of the fact that this is the first time ever that the budget of this critical department is being examined. Given the time constraint in which the Committee has worked, as the subsequent paragraphs will show representative projects and schemes have been scrutinised rather than an exhaustive analysis of the entire budget.

CHAPTER II

DEMANDS FOR GRANTS OF THE DEPARTMENT OF ATOMIC ENERGY

Detailed Demands for Grants of the Department of Atomic Energy may be seen as per Annexure-I.

- 2. A critical evaluation of Demands for Grants of the following representative projects/schemes is given in the subsequent paras:
 - (a) Research and Development
 - (b) Power Projects
 - (c) Nuclear Fuel Complex
 - (d) Heavy Water Board
 - (c) Fuel Reprocessing
- 2.1 (a) Research & Development—Demand No. 84, Major Heads 3401, 2852, 4861 and 5401.
- 2.1.1 Financial Requirement of R & D Sector may be seen as per Annexure-II. After examining the Actuals of the year 1990-91 and 1991-92, Budget Estimates 1991-92, 1992-93 and comparing the BE and RE of the subsequent years upto 1992-93, it is observed that in all cases either the Actuals or the RE is uniformly lower. Keeping that in view the Budget Estimates for 1993-94 have to be evaluated. If the past trend is applicable in respect of all the Projects/Schemes under R & D and if the past trend is a yardstick then, BE for the year 1993-94 must be examined in great detail. It would also be necessary to evaluate in detail the underspending in the years under consideration and reduce that to an annual percentage factor. That factor, as criteria, then needs to be applied in the evaluation of the Budget Estimates of 1993-94.
- 2.1.2 The Committee observe that as in the inter-relationship between BE, RE and Actuals so also in the Estimates and Actual Expenditure of specific projects. It is in this light that the expenditure on R & D in the Department of Atomic Energy has to be examined. In this Department R & D is a critical input. Despite this, the Committee is constrained to observe that uniformly all the Estimates of the Projects are significantly higher than the actual expenditure.
- 2.1.3 This is of particular importance, given the existing financial stringency as over-estimates lead to the locking up of utilisable funds, in turn depriving other deserving projects/schemes of budgetary allocations.

- 2.1.4 'Progress of Expenditure' in respect of major projects under construction may be seen as per Annexure-III. It will be observed from this Annexure that the progress of expenditure in various projects/schemes is unacceptably slow. In some of the projects the likely date of completion has been given as 1992-93 or say 1993-94, 1994-95 etc. The progress of expenditure till the end of March, 1991 however ranges from about 20% to 35% of the estimated cost. This trend is applicable in all the Projects/Schemes. The Committee is thus led to observe that such a trend in an important department like the Department of Atomic Energy has three adverse consequences: delay in completion of project and consequential loss of benefits to accrue; escalation in the cost of the project, which when assessed as time-cost factor has synergetic consequences; and as earlier stated, avoidable locking up of scarce resources.
- 2.1.5 'Revenue from Programmes' may be seen as per Annexure-IV. The Committee observe that the Revenue from Bhabha Atomic Research Centre under R&D, has been declining. The Ministry may be required to explain this.
- 2.2 (b.) Power Projects —Demand No. 85, Major Heads 4801, 6801 and 2801.
 - 2.2.1 At present power contribution by Atomic Power Projects is just about 2.6% of the total power generation of the country. The Department had adopted a target of 10% of the total power generation or 10,000 MWe by 2000 A.D. Nuclear Power capacity envisaged at the end of the 7th and the 8th Plan is 1465 MWe and 2170 MWe respectively. Against this the annual gross electricity generation in the calendar year 1992 was of 6328 MUs, increasing from 5443 MUs of 1991. There is thus a short fall in the net profit available for the year 1991-92, which is placed at Rs. 20.82 crores. The Committee is led to observe that seeing the targets fixed by the Ministry itself the growth of Nuclear Power in the country has been unsatisfactory. The Government must explain this failure in detail.
 - 2.2.2 Of equal concern is delay in compilation of figures. In April 1993, the last figures available to the Committee are of the year 1991-92. Either the Department and the Government also do not have access to upto date figures or the Committee have been denied them; on both counts it is an unsatisfactory situation. The Committee are of the view that a system of ensuring more upto date availability of figures can definitely be worked out. In the absence of this basic input the Committee are at a loss to appreciate how any realistic projections about the future can possibly be made.
 - 2.2.3 Financial Requirement of power projects may be seen at Annexure-V. It will be observed that there is no uniform pattern here of BE, RE or of Actuals; overspending and underspending alternate. That being the case, it is difficult to arrive at a criteria for the evaluation of the

Budget Estimates of 1993-94. The Committee, however, observe that unless the implementation of Power Projects is governed by more efficient financial planning the Budget Estimates of 1993-94, will suffer the same fate as the estimates of earlier years.

2.2.4 The Financial Results of different-Power Projects in operation

The evaluation of the financial results of different power projects can be seen as per Annexure-VI. An examination of the trend in Tarapur Atomic Power Station (TAPS), Rajasthan Atomic Power Station (RAPS), Narora Atomic Power Station (NAPS), shows that the anticipated results of 1992-93, in the units generated and sold are lower than the budgeted figures for the year. The Committee wish to observe that, firstly, it is unable to understand why the Department is not able to give actual figures of units generated and sold, and continues to classify them as "anticipated". The second observation is that we find that invariably the actual performance is lower than the targeted figure. As an evaluation can only be made against the yardstick of established targets, therefore, financial allocations sought must be examined afresh against these observations of the Committee. The Department may, in the meantime, explain.

2.3 (c) Nuclear Fuel Complex—Demand No. 84, Major Heads 4861 and 2852.

2.3.1 The financial requirement under Nuclear Fuel Complex is given as under:

(Rupees in lakhs)

Actuals 1990-91	Budget Estimates 1991-92	Actuals 1991-92	Diff. of Cols. 2&3 (-)under spent (+)Over- spent	Budget Estimates 1992-93	Revised Estimates 1992-93	Diff. bet. Cols. 5&6	Budget Estimates 1993-94
15707.00	20067.00	18033.79	-2033.21	22475.00	21532.00	-943.00	26794.00

2.3.2 It will be seen from the above that the Actuals are again lower than the Budget Estimates, as indeed are the Revised Estimates. This applies to all the years under consideration, that is 1990-91 to 1992-93. If this trend is to be taken into account than the current year's Budget Estimates must be re-examined.

2.3.3 Financial Results of Fuel Fabrication Facility (Nuclear Fuel Complex-Hyderabad)

Financial Results of Fuel Fabrication Facility (Nuclear Fuel Complex, Hyderabad) are as given below:

(Rs. in crores)

Partic	ulars	RE 1992-93	BE 1993-94
a.	Net Production and Sales	153.38	190.81
b.	Cost of Sales	100.74	136.67
c.	Gross profit before depreciation and interest	52.64	54.14
d.	Depreciation and Interest on capital	30.15	29.05
c.	Net Profit (+)	22.49	25.09

- 2.3.4 It would be seen from the above that net profits are declining, obviously because net production and sales are also declining. Simultaneously, the cost of sales is increasing. The Committee take serious note of this trend. It would be necessary for the Department to explain this fully. In the meantime the Department would be well advised to remedy this unsatisfactory situation at the earliest.
- 2.3.5 The targets fixed for Fuel Plants as stated in the Performance Budget 1992-93 are 210 tons from PHWR* Fuel and 12.80 tons for BWR* Fuel, for the year 1992-93. For the subsequent year, that is 1993-94, targets have been fixed at the level of 250 tons for PHWR Fuels and 16 tons for BWR Fuels. The Performance Budget while giving the financial results is, however, silent on the actual production achieved. This needs to be explained. The Committee also desire that the Department clarify how the targets are fixed when shortfalls in production remain.
- 2.4 (d) Heavy Water Board —Demand No. 84, Major Heads 4861 and 2852
- 2.4.1 Financial Requirement in different programmes may be seen as per Annexure-VII. It would be seen that there is no consistent trend in the Estimates and Actuals. In some of the programmes there is underspending, when Budget Estimates are compared to Actual Estimates of 1991-92, and in certain heads there is excess spending. Similar situation exists in respect of the Budget Estimates of 1992-93 and the Revised Estimates 1992-93. Further, when compared to the Actuals of 1991-92 the Budget Estimates of 1993-94 appear inflated. The proposals, therefore, need to be re-examined.
- 2.4.2 The Committee note that the Performance Budget 1993-94 is silent over the targets of different projects and recommend that performance budget must clearly mention the targets fixed and the achievements of the previous year.

- 2.5 (e) Fuel Reprocessing-Demand No. 84, Major Heads 2852 and 4861
- 2.5.1 Financial requirement in different programmes may be seen as per Annexure-VIII. It would be seen that there is no consistent trend in the Estimates. In some of the programmes there is considerable excess and in some unexplained underspending (Please compare that Budget Estimates of 1991-92 with the Actuals of 1991-92). Further, the Revised Estimates of 1992-93 are more than the Budget Estimates of 1992-93 in some of the programmes and in others less. The Department is expected to explain these fully.

 JASWANT SINGH, Chairman, Standing Committee on Energy (1993-94).

DEMANDS FOR GRANTS OF THE DEPARTMENT OF ATOMIC ENERGY

-	Major Head	Actuals 1991-92		Budget Estimates 1992-93	stimates -93	Revised Estimates 1992-93	stimates 93	Budget Estimates 1993-94	stimates 94		Remarks	
ŀ	7	ָר ק		4		5		9			د	
		a.	Plan Non- Plan Plan Non-Plan	an Plan	Non-Plan	Plan	Plan Non-Plan	Plan	(Rs. in thousands) Plan Non-Plan	thousa	(spu	
oud Pu	. Demand No. 84 1. 3451	ı	3,25,83	l	4,11,00	ł	4,11,00	I	4,66,00		This head comprises of items like Salaries etc. of Secti. & Atomic Energy	es of etc. of Energy
	2852	I	- 189,46,37	1	- 217,31,00	I	205,22,00	1	233,75,00	This items Atomic Nucles Heavy Repro	This head comprises of items like R&D, Babbha Alomic Research Centre. Nuclear Fuel Complex, Heavy Water Board, Fuel Reprocessing Plants; Industry & Extension Programmers and Surroce Surrocessing Plants; Industry & Extension Programmers and Surrocessing Plants; Industry & Extension Programmers and Surrocessing Plants; Industry & Extension Programmers	ses of Shabha Centre, mplex, I, Fuel Indus-ogram-
	3401	37,25,04	37.25.04 218,08,97	47,80,00	47,80,00 244,73,00	46,12,00	46.12,00 244,53,00	49,91.00	49,91,00 271,00,00		This head comprises of This head comprises of items like R&D, Bhabha Atomic Research Centre, Aided Institutions, Nuclear Power Programme, Support Services, Contribution to International Atomic Energy Agency.	vecs. ses of Shabha Centre, Vuclear upport on to Ener-

				8			
7	This head comprises of item	tive Societies/Canteens. This head comprises of items like Electronics Cor-	poration of India Ltd.— Investment. This head comprises of items like Bhabha Atomic Research Centre, Nuclear	Power Programme, Nuclear Fuel Canteen, Heavy Water Board. Power Projects, Fuel Reprocessing, Industry & Extension Programme. This head comprises of items like Bhabha Atomic Research Centre, Nuclear Programme, Support Programme, Support		Management. This head comprises of item	like Power Projects. This head comprises of item like Loan for Power Pro- jects etc.
	7,00	1	364,00.00	l	441,61,00	1	441,61,00
9	ı	1,00,00	193,67,00	00'60'89	ı	179,33,00	179,33,00
	7,00	ı	298,15,00	1	366,46,00	1	366,46,00
5	ł	1,00,00	151,11,00	54,99,00	1	147,30,00	147,30,00
	7,00	ı	283,65,00	1	395,50,00	1	395,50,00
4	1	00'00'1	143,58,00	57,20,00 .	1	144,00,00	154,00,00
	ŧ	I	4861 133,05,55 236,86,66 143,58,00 283,65,00 151,11,00 298,15,00 193,67,00 364,00,00	ı	2,87,68,15	1	139,02,71 287,68,15 154,00,00 395,50,00 147,30,00 366,46,00 179,33,00 441,61,00
3	1	ı	133,05,55	45,08,19	1	4801 139,02,71	139.02,71
2	4425	4859	4861	5401	emand No. 85 8. 2801	4801	1089
_	ų.	wi.	vá.	~	eman 3.	a:	

FINANCIAL REQUIREMENT TABLE RESEARCH AND DEVELOPMENT IN DEPARTMENT OF ATOMIC ENERGY

Actuals 1990-91	Budget Estimates 1991-92	Actuals 1991-92	Difference between Cols. 2 & 3 + overspent - underspent	Budget Estinates 1992-93	Revised Estimates 1992-93	Difference between Cols. 5 & 6 + overspent - underspent	Budget Estimates 1993-94	
-	2	3	4	5	9	7	80	
			Resea	Research & Development	ment			(Rs. in lakhs)
Bhabha Atomic 12932.75	Bhabha Atomic Research Centre 12932.75 15156.00	13866.80	-1289.20	15946.00	15824.00	-122.00	18298.00	
Variable Energy 593.83	Variable Energy Cyclotron Centre 593.83 775.00	09.189	-93.40	924.00	893.00	-31.00	1044.00	84/3401/5401
Centre for Adva 1794.92	Centre for Advanced Technology 1794.92 2265.00	1952.39	-312.61	2300.00	2291.00	-09.00	2799.00	2799.00 84/3401/5401/4861
Ladira Gandhi C 3339.14	Indira Gandhi Centre for Atomic Research 3339.14 4170.00 2926.61	Research 2926.61	-1243.39	3528.00	3347.00	-181.00	3802.00	84/3461/5401
Added Institutions 6976.48	. 8036.00	7530.97	-505.03	8755.00	8699.00	- 56.00	9517.00	
Research Facilities 73.52	Research Facilities at Schagar/Gulmarg 73.52 110.00 6	inarg 68.27	-41.73	105.00	84 .00	-21.00	92.00	
Muscellaheous Ke 39.82	Macenancous Research Frogramme 39.82 82.00	# 4.4	-37.59	102.00	87.00	-15.00	102.00	84/3401
Total R & D 25750.51	30594.00	27071.05	3522.95	31660.00	31225.00	-435.00	35654.00	

9

PROGRESS OF EXPENDITURE IN RESPECT OF MAJOR PROJECTS UNDER CONSTRUCTION

	Project	Esti- mated Cost	Esti- Expendimated ture to end Cost of 3/92	Ac- tuals 1991-92	VIII Five Year Plan (Final)	Anti- cipa- ted 1992-93	Out- lay 1993-94	Likely dt. of comp- ktion
-	2	3	+	~	9	7	00	6
Z	. RESEARCH AND DEVELOPMENT PROGRAMME	ROGRAMME					(Rs.	(Rs. in Lakhs)
0.1	Bhabha Atonuc Research Centre	;	:	;	;	;	. ;	
2 :	Superconducting Linac Booster	350.00	81.42	3.5 8.5	192:00 22 00	8.53	8 8 8 8	1004.05
12	Modernisation of Reactor Control	330.00	284.51	99.99	46.00	30.00	10.08	1994-95
	Instrumentation							
:	National Centre for Compositional Characterisation of High Purity Materials	00.767	205.01	115.26	00.009	138.00	334.00	3 61
1.5	Failure Assessment & Repair	\$40.00	196.70	13.13	343.00	90.00	80.00	1994-95
1.6	BARC Hospital in Patient Facility (Ph. 1 & II)	607.51	114.03	24.52	437.00	55.00	90.00	1994-95
1.7	Waste Immobilisation Plant Trombay	4	2087.80	410.11	2812.00	00.009	770.00	1995
0	nuclear Physics Instrumentation for Accelerator Utilisation	320:00	31.25	31.23	220.00	23.08	30.06	1994-95
6:1	Advanced Computation Facility	00.006	0.00	0.00	200.00	170.00	126.00	1997
1.10	Development of Optical Component System & Thin Fine Devices	450.00	0.62	0.61	370.00	15.00	40.00	1997
Ξ	Development Studies Relevant to Reprocessing and Waste Management	450.00	000	0.00	262.00	4.00	43.00	1997

1.12 Compo Conditi 1.13 Materia Zirconi	Component Decontamination and	650.00	0.00	0.0	400.00	9.1	8	1995-96	
	The Handley								
Zirconi	Conditioning received Materials Development & Process for	300.00	0.0	0.00	159.00	2.00	20.00	1994-95	
•	Zirconium Alloys, Super Alloys and								
Snape 1 14 Modern	Snape Memory Alloys Modern Dolling Mill for Engl	240 00	20	20	30 00	217 00	8	760	
	ion	3	8	}	3	•	3		
1.15 Powder	Powder Metallurgy Programme	300.00	000	0.00	239.00	11.00	48.00	1995-96	
-	Centre for Advanced Technology								
	Infrastructure Facilities Stage A & B	1532.10	886.57	47.92	620.00	8.0	250.00	1996-97	
•	Advanced Laser Technology	2180.00	2031.28	465.91	147.00	120.00	27.00	1992-93	
-	Laser Expansion	2311.00	0.0	0.0	2010.00	425.00	450.00	1996-97	
	Accelerator Expansion	5119.00	69. 4 0	69.40	2630.00	550.00	260.00	2002	
	National Laser Programme	1900.00	0.0	0.0	1000.00	228.00	300.00	1996-97	
_	Indira Gandhi Centre for Atomic								
Research									
3.1 Engg.	Engg. Research in Support of	2500.00	1423.50	316.16	409.00	211.01	147.23	1995	11
PFBR-	PFBR—Stage 'A'								
3.2 Augme	Augmentation of Facility in BARC &	121	11.36	11.36	710.00	45.48	123.30	1993-94	
ICCA	IGCAR for Development of Facilities								
	*								
	Radiometallurgy Lab, Stage B	330.00	207.85	4 .68	122.00	8.8	16.65	1993	
3.4 Fuel R	Fuel Reprocessing of FBTR	3500.00	873.70	166.35	1500.00	440.00	700.00	1993	
	Prototype Fast Breeder Reactor-Stage	3300.00	1982.68	609.13	5199.00	520.00	744.00	1997	
A&B									
4.0 Tata L	Tata Institute of Fundamental Research								
4.1 Giant	Giant Meter Radio Wave Length	ı	ı	717.90	1800.00	963.00	890.00	1991	
Telescope	2								
	NUCLEAR POWER PROGRAMME								
	Nuclear Fuel Complex								
1.1 Augme	Augmentation of PHWR Fuel	1987.00	1506.99	840.35	479.00	200.00	220.00	3 6	

													12	2	
6	1994	1861	1981	1995-96	<u>36</u>	1995	1991		1993	1996		1997-98			1993
80	400.00	3310.00	2000.00	1000.00	400.00	2200.00	200.00		2000.00	22000.00		27000.00			1365.00
7	626.00	00.009	20.00	200.00	626.00	2500.00	\$00.00		12500.00	18000.00		26000.00		;	1480.00
9	1045.00	9000.00	8057.00	1500.00	1045.00	900000	1550.00		13400.00	100000.00		100000.00		:	4532.00
\$	490.06	733.24	10.13	121.87	490.06	341.09	75.00		11127.00	10634.00		16776.00			2054.73
•	753.44	762.13	1612.99	429.86	753.44	654.52	75.00		91405.00	39472.00		46466.00			30719.00
3	1790.00	26520.00	21475.00	1624.99	1790.00	23631.00	9065.00		108400.00	21000.00		205000.00			37144.00
2	Expansion of Zircaloy Fabrication Plant (50-80 tonnes)	New UO FP2-Hyderabad	NUO FP Amembly Plant Hyderabad	New Zirconium Sponge Plant	Expansion of Zircaloy Fabrication Plant	New Zircaloy Fabrication Plant	Titanium Sponge Project	Power Projects	Kakrapar Atomic Power Project II	Rajasthan Atomic Power	Station III & IV	Kaiga Atomic Power Station	Unit I & II	rues Keprocessing	PREFRE Kalpakkam

22.25.1.25.22.22

3.0

ANNEXURE IV

REVENUE FROM PROGRAMME IN R&D

Actuals 1990-91	Budget Estimates 1991-92	Actuals 1991-92	Budget Estimates 1992-93	Revised Estimates 1992-93	Budget Estimates 1993-94
	and Developm		ıme	(R	s. in lakhs)
Bhabha A	tomic Resear	ch Centre			
1055.75	905.97	944.65	921.55	1068.60	1129.60

FINANCIAL REQUIREMENT TABLE—POWER PROJECTS DEMAND NOS. 85/4801, 6801

Programme	Actuals 1990-91	Budget Estimates 1991-92	Actuals 1991-92	Difference between Col. 3 & 4 - underspent + overspent	Budget Estimates 1992-93	Revised Estimates 1992-93	Difference between Col. 6 & 7 - underspent + overspent	Budget Estimates 1993-94
-	2	3	+	\$	9	7	•	6
								(Rs. in Lakhs)
Investment	18500.00	13057.00	13057.00	1	12805.00	13800.00	+995.00	16294.00
Long	90.0	0.0	0.00	i	1000.00	1	-1000.00	0.00
Heavy Water	\$428.36	7540.00	7114.00	-426.00	8573.00	9914.00	+1341.00	11390.00
Pool Manage-								
		30	200	9			;	
Operational	Z. Z.	8000	3.66	¥.91	973.00	6506.00	-467.00	7473.00
Expenses of								
Rajaethan								
Atomic								
Power Station								
T iiin								
Fuel Inventory	12419.33	20600.00	15327.56	-5272.44	22184.00	18564.00	-3620.00	23530.00
Feed Stock	3309.35	9000.00	545.17	-8454.83	2000.00	1500.00	-3500.00	3500.00
Material								
Others (Nuc-	12.59	10.00	13.05	+3.05	1200.00	1200.00	İ	1200.00
kar								
Power Board)								•
Prototype Fact	90.16	400.00	609.13	+209.13	1000.00	520.00	-480.00	744.00
Breeder Test								
Reactor								
Total	ACBCD 70	00 20773	20070	10000	00 30003	00000		
	4007.10	W./W	40074.91	-13982.03	36/35.UD	SZAWA.UU	-6731.00	64131.00

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ANNEXURE VI
FINANCIAL RESULTS OF DIFFERENT POWER PROJECTS IN OPERATION

	Financial Results Budgeted 1992-93	Anticipated 1992-93	Forecast 1993-94
Tarapur Atomic Power Station			
a. Units generated MUs	2072	1649	1770
b. Units sold MUs	1865	1490	1598
c. Capacity factor(%)	74	59	63
Rajasthan Atomic Power Station Unit-I			
a. Units generated MUs	0	271	402
(with energy equivalent of steam)			
b. Units sold (MUs)	0	183	281
(with energy equivalent of steam)			
c. Capacity factor(%)	0	21	46
Rajasthan Atomic Power Station Unit-II			
a. Units generated (MUs)	1061	977	1000
b. Units sold (MUs)	934	862	880
c. Capacity factor (%)	58	55	56
Madras Atomic Power Station			
a. Units generated (MUs)	1770	1794	1945
b. Units sold (MUs)	1558	1576	1712
c. Capacity Factor (MUs)	43	47	50
Narora Atomic Power Station			
a. Units generated (MUs)	1941	1556	2420
b. Units sold (MUs)	1630	1290	2105
c. Capacity Factor(%)	50	40	63
Kakrapar Atomic Power Station			
a. Units generated (MUs)	_	_	965
b. Units sold (MUs)	_	_	838
c. Capacity factor(%)	_		50

FINANCIAL REQUIREMENT TABLE HEAVY WATER BOARD

EAVY WATER BOARD Demand No. 84, Major Heads 4861, 2852

Programme	Actuals	Budget	Actuals	Diff. of	Budget	Revised	Diff.of	Budget
	1990-91	Estimates 1991-92	26-1661 26-1661	Cots 3 & 4 + Overspent - Underspent	Est. 1992-93	Estimates 1992-93	Cols. b & 7 +Overspent -Underspent	1993-94
							8	(Rs. in Lakhs)
Heavy Water Board Central Office	90.42	115.00	121.71	+6.71	125.00	135.00	+10.00	160.00
Heavy Water Plant Manuguru (in-								
Coloning 1 cm Facilities)	4216.74	1345.00	674.61	-670.39	310.00	622.00	+312.00	524.00
Improving performance of Heavy								
Water Plants	621.72	147.72	260.63	+112.91	285.00	246.00	-39.00	468.00
Heavy Water Project Hazira	2341.84	290.00	65.47	-224.53	80.00	300.00	+220.00	10.00
New Heavy Water Projects	13.70	0.00	0.00	1	20 .00	20.00	ı	9.0
Housing Colony for Heavy Water								
Mants	488.79	417.28	343.64	-73.64	275.00	271.00	-4.00	230.00
Operational Exp. on Heavy Water Plants	-13940.32	23415.00	24110.12	+695.12	23240.00	28180.00	+4940.00	32740.00
Estate Management for Housing Colonies	12.21	135.00	124.71	-10.23	225.00	203.00	-22.00	219.00
Total	21799.24	21799.24 25865.00	25700.95	+164.05	+164.05 24590.00	30007.00	+5417.00	34351.00

FINANCIAL REQUIREMENT TABLE FUEL REPROCESSING

INT TABLE

		Ž	roet nernocessing		Dem	and No. 84	Demand No. 84, Major Heads 2852, 4861	2852, 4861
Name of the Programme	Actuals 1990-91	Budget Estimates 1991-92	Actuals 1991-92	Diff. of Cols. 3&4 -Underspent +Overspent	Budget Estimates 1992-93	Revised Estimates 1992-93	Revised Difference stimates of Col. 6&7 1992-93 – Underspent +Overspent	Budget Estimates 1993-94
	2	3	*	8	9	7	80	6
							(Rs	(Rs. in lakhs)
Operational Expenses of Power Reactor Fuel Reprocessing	435.96	539.00	503.80	-35.20	850.00	\$45.00	-5.00	286.00
Operational Expenses of Power Reactor Fuel Reprocessing Expansion Plant, Tarapur	Not mentioned	Not mentioned	368.03	1	396.00	354.00	-42.00	382.00
Power Reactor Fuel Reprocessing Plant at Kapaakkan								
Capital Exp.	2999.24	2800.00	2054.73	-745.27	1480.00	1480.00	1 8	1365.00
Cxp.	9.3	1040.00	8.790	¥C:7C*-	99.90	699.UD	+159.00	1000.00
Revamping of PREFRE	0.00	0.00	0.0	1 :	20.00	2.00	•	10.00
General Services Organisation at Tarapur	195.40	217.00	269.92	+52.92	263.00	262.00	-1 :8	338.00
Housing Colony at Tarapur	16.26	10.00	104.28	+94.28	85.00	67.00		45.00
Fuel Reprocessing of Fast Breeder Test Reactor (IGCAR)	148.84 26.	200:00	166.35	-333.65	300.00	440.00	+140.00	700.00
Total	4419.57	\$357.00	4054.77	-1302.23	3794.00	4049.00	+255.00	4432.00

MINUTES OF FIRST SITTING OF STANDING COMMITTEE ON ENERGY HELD ON MONDAY, THE 26TH APRIL, 1993

The Committee sat from 1500 to 1700 hrs.

PRESENT

Shri Jaswant Singh-Chairman

MEMBERS

Lok Sabha

- 2. Shri Bhawani Lal Verma
- 3. Shri Murli Deora
- 4. Shri Motilal Singh
- 5. Shri Khelan Ram Jangde
- 6. Shri K.P. Reddaiah Yadav
- 7. Shri Shiv Charan Mathur
- 8. Shri Dalbir Singh
- 9. Shri Virender Singh
- 10. Shri Laxminarain Tripathi
- 11. Prof. Rita Verma
- 12. Shri Raicsh Kumar
- 13. Shri Haradhan Roy
- 14. Shri Chitta Basu
- 15. Shri Mohan Singh (Ferozpur)
- 16. Shrimati Dil Kumari Bhandari

Rajya Sabha

- 17. Shri Sunil Basu Ray
- 18. Shrimati Ila Panda
- 19. Shri J.S. Raju
- 20. Shri Dayanand Sahay
- 21. Shri Rajni Ranjan Sahu
- 22. Shri Viren J. Shah
- 23. Shri Matang Singh

SECRETARIAT

- 1. Shri K.M. Mittal—Deputy Secretary
- 2. Shri R.K. Malik-Under Secretary

The Committee took up for consideration the working paper cum draft Report on Demands for Grants of the Department of Atomic Energy. The representatives of the Department of Atomic Energy were present at the sitting. The Chairman/Members raised several points relating to the Demands for Grants, particularly in the context of observations/comments on various demands as contained in the working paper cum draft Report. The Chairman, then directed the representatives of the Ministry to furnish notes clarifying the issues raised by Members to the Secretariat, for consideration of the Committee.

Similar procedure was adopted by the Committee to deal with the working paper cum draft Report on the Demands for Grants of the Ministry of Non-Conventional Energy Sources. The representatives of the Ministry were also present.

The draft Reports on the Demands for Grants of the Department of Atomic Energy and the Ministry of Non-Conventional Energy Sources were then adopted by the Committee. The Chairman was authorised by the Committee to finalise the Reports and to present them to the House.

It was decided to hold the next meeting on 11 May, 1993 at 1530 hrs. to consider the future programme of the Committee.

The Committee then adjourned.