

Annexure

I Impact of price escalation on the final project cost

Sheet 1 Price escalation @ 12%

Sheet 2 Price escalation @ 10%

Sheet 3 Price escalation @ 08%

II Impact of construction delays on the final project cost

Sheet 1 Delay of 2 years

Sheet 2 Delay of 4 years

Sheet 3 Delay of 6 years

Sheet 4 Delay of 8 years

Sheet 5 Delay of 10 years

III Impact of insufficient Ninth-Plan funding on the ongoing projects

IV Financial analysis of Sardar Sarovar Project – Power Component

Sheet 1 Tentative estimated cost and balance fund requirement

Sheet 2 Revenue generation scenario

Sheet 3 Tentative cast outflows for completion of project

Sheet 4 Net cash flows to project

V India's major and medium river basins

ANNEXURE - I

(Sheet 1/3)

IMPACT OF PRICE ESCALATION ON THE FINAL PROJECT COST (Without Delay in Project Completion)

Planned Duration= 10 years
Price Escalation = 12.00% per annum Original Estimate = Rs. 100 crore

year of const.	Physical progress (in %)		Financial progress(Rs Crore)		Escalation on balance cost		Revised Esstimate	
	Work done	Balance Work	Expenditure Incurred	Balance Expenditure	Price Escalation	Revised Balance cost	Cummulative Expenditure	Revised T Estimate
1	10.00%	90.00%	10.00	90.00	10.80	100.80	10.00	110.80
2	10.00%	80.00%	11.20	89.60	10.75	100.35	21.20	121.55
3	10.00%	70.00%	12.54	87.81	10.54	98.34	33.74	132.09
4	10.00%	60.00%	14.05	84.30	10.12	94.41	47.79	142.20
5	10.00%	50.00%	15.74	78.68	9.44	88.12	63.53	151.65
6	10.00%	40.00%	17.62	70.49	8.46	78.95	81.15	160.10
7	10.00%	30.00%	19.74	59.21	7.11	66.32	100.89	167.21
8	10.00%	20.00%	22.11	44.21	5.31	49.52	123.00	172.52
9	10.00%	10.00%	24.76	24.76	2.97	27.73	147.76	175.49
10	10.00%	0.00%	27.73	0.00	0.00	0.00	175.49	175.49
Total	100.00%		175.49		75.49			

Planned Duration= 15 years
Price Escalation = 12.00% per annum Original Estimate = Rs. 100 crore

year of const.	Physical progress (in %)		Financial progress(Rs.Crore)		Escalation on balance cost		Revised Esstimate	
	Work done	Balance Work	Expenditure Incurred	Balance Expenditure	Price Escalation	Revised Balance cost	Cummulative Expenditure	Revised T.Estimate
1	6.67%	93.33%	6.67	93.33	11.20	104.53	6.67	111.20
2	6.67%	86.67%	7.47	97.07	11.65	108.71	14.13	122.85
3	6.67%	80.00%	8.36	100.35	12.04	112.39	22.50	134.89
4	6.67%	73.33%	9.37	103.03	12.36	115.39	31.86	147.25
5	6.67%	66.67%	10.49	104.90	12.59	117.49	42.35	159.84
6	6.67%	60.00%	11.75	105.74	12.69	118.43	54.10	172.53
7	6.67%	53.33%	13.16	105.27	12.63	117.90	67.26	185.16
8	6.67%	46.67%	14.74	103.17	12.38	115.54	82.00	197.54
9	6.67%	40.00%	16.51	99.04	11.88	110.92	98.50	209.43
10	6.67%	33.33%	18.49	92.44	11.09	103.53	116.99	220.52
11	6.67%	26.67%	20.71	82.82	9.94	92.76	137.70	230.46
12	6.67%	20.00%	23.19	69.57	8.35	77.92	160.89	238.81
13	6.67%	13.33%	25.97	51.95	6.23	58.18	186.86	245.04
14	6.67%	6.67%	29.09	29.09	3.49	32.58	215.95	248.53
15	6.67%	0.00%	32.58	0.00	0.00	0.00	248.53	248.53
Total	100.00%		248.53		148.53			

Planned Duration= 20 years
Price Escalation = 12.00% per annum Original Estimate = Rs. 100 crore

year of const.	Physical progress (in %)		Financial progress(Rs Crore)		Escalation on balance cost		Revised Esstimate	
	Work done	Balance Work	Expenditure Incurred	Balance Expenditure	Price Escalation	Revised Balance cost	Cummulative Expenditure	Revised T.Estimate
1	5.00%	95.00%	5.00	95.00	11.40	106.40	5.00	111.40
2	5.00%	90.00%	5.60	100.80	12.10	112.90	10.60	123.50
3	5.00%	85.00%	6.27	106.62	12.79	119.42	16.87	136.29
4	5.00%	80.00%	7.02	112.39	13.49	125.88	23.90	149.78
5	5.00%	75.00%	7.87	118.01	14.16	132.18	31.76	163.94
6	5.00%	70.00%	8.81	123.36	14.80	138.17	40.58	178.74
7	5.00%	65.00%	9.87	128.30	15.40	143.69	50.45	194.14
8	5.00%	60.00%	11.05	132.64	15.92	148.56	61.50	210.06
9	5.00%	55.00%	12.38	136.18	16.34	152.52	73.88	226.40
10	5.00%	50.00%	13.87	138.65	16.64	155.29	87.74	243.04
11	5.00%	45.00%	15.53	139.76	16.77	156.53	103.27	259.81
12	5.00%	40.00%	17.39	139.14	16.70	155.84	120.67	276.50
13	5.00%	35.00%	19.48	136.36	16.36	152.72	140.15	292.87
14	5.00%	30.00%	21.82	130.90	15.71	146.61	161.96	308.58
15	5.00%	25.00%	24.44	122.18	14.66	136.84	186.40	323.24
16	5.00%	20.00%	27.37	109.47	13.14	122.61	213.77	336.37
17	5.00%	15.00%	30.65	91.96	11.03	102.99	244.42	347.41
18	5.00%	10.00%	34.33	68.66	8.24	76.90	278.75	355.65
19	5.00%	5.00%	38.45	38.45	4.61	43.06	317.20	360.26
20	5.00%	0.00%	43.06	0.00	0.00	0.00	360.26	360.26
Total	100.00%		360.26		260.26			

ANNEXURE - I

(Sheet 2/3)

IMPACT OF PRICE ESCALATION ON THE FINAL PROJECT COST (Without Delay in Project Completion)

Planned Duration= 10 years
Price Escalation = 10.00% per annum Original Estimate = Rs. 100 crore

year of const.	Physical progress (in %)		Financial progress(Rs.Crore)		Escalation on balance cost		Revised Esstimate	
	Work done	Balance Work	Expenditure Incurred	Balance Expenditure	Price Escalton	Revised Balance cost	Cummulative Expendiure	Revised T Estimate
1	10.00%	90.00%	10 00	90 00	9.00	99.00	10.00	109.00
2	10.00%	80.00%	11 00	88 00	8 80	96.80	21.00	117 80
3	10.00%	70 00%	12 10	84.70	8 47	93 17	33.10	126.27
4	10.00%	60 00%	13 31	79.86	7 99	87 85	46.41	134.26
5	10.00%	50 00%	14 64	73 21	7.32	80.53	61 05	141 58
6	10.00%	40 00%	16.11	64.42	6.44	70.86	77 16	148.02
7	10.00%	30.00%	17.72	53 15	5.31	58.46	94 87	153 33
8	10 00%	20.00%	19.49	38.97	3 90	42.87	114 36	157.23
9	10 00%	10.00%	21 44	21.44	2 14	23.58	135.79	159.37
10	10 00%	0 00%	23 58	0 00	0 00	0.00	159 37	159 37
Total	100 00%		159 37		59.37			

Planned Duration= 15 years
Price Escalation = 10.00% per annum Original Estimate = Rs. 100 crore

year of const.	Physical progress (in %)		Financial progress(Rs Crore)		Escalation on balance cost		Revised Esstimate	
	Work done	Balance Work	Expenditure Incurred	Balance Expenditure	Price Escalton	Revised Balance cost	Cummulative Expendiure	Revised T.Estimate
1	6.67%	93.33%	6 67	93.33	9 33	102.67	6 67	109 33
2	6 67%	86 67%	7 33	95 33	9.53	104 87	14.00	118.87
3	6 67%	80.00%	8 07	96 80	9.68	106.48	22 07	128 55
4	6 67%	73.33%	8.87	97 61	9.76	107 37	30 94	138 31
5	6.67%	66.67%	9 76	97.61	9 76	107.37	40 70	148.07
6	6.67%	60 00%	10 74	96.63	9 66	106.29	51 44	157 73
7	6 67%	53 33%	11 81	94.48	9.45	103.93	63.25	167.18
8	6.67%	46.67%	12.99	90 94	9.09	100.03	76 24	176.27
9	6.67%	40.00%	14.29	85.74	8.57	94 32	90 53	184 85
10	6.67%	33.33%	15.72	78.60	7 86	86.46	106.25	192 71
11	6 67%	26 67%	17 29	69 17	6.92	76.08	123.54	199 62
12	6.67%	20.00%	19.02	57.06	5.71	62.77	142.56	205 33
13	6.67%	13.33%	20.92	41.85	4 18	46 03	163 48	209.52
14	6 67%	6 67%	23 02	23.02	2.30	25.32	186 50	211.82
15	6.67%	0.00%	25 32	0.00	0.00	0.00	211.82	211 82
Total	100.00%		211 82		111.82			

Planned Duration= 20 years
Price Escalation = 10.00% per annum Original Estimate = Rs. 100 crore

year of const.	Physical progress (in %)		Financial progress(Rs.Crore)		Escalation on balance cost		Revised Esstimate	
	Work done	Balance Work	Expenditure Incurred	Balance Expenditure	Price Escalton	Revised Balance cost	Cummulative Expendiure	Revised T Estimate
1	5.00%	95.00%	5 00	95 00	9 50	104 50	5 00	109.50
2	5.00%	90.00%	5.50	99 00	9.90	108.90	10.50	119.40
3	5.00%	85 00%	6 05	102.85	10.29	113 14	16 55	129.69
4	5 00%	80 00%	6 66	106 48	10.65	117.13	23 21	140 33
5	5.00%	75.00%	7.32	109 81	10 98	120.79	30.53	151.31
6	5 00%	70 00%	8 05	112.74	11 27	124 01	38 58	162 59
7	5 00%	65.00%	8 86	115 15	11 52	126 67	47 44	174 10
8	5.00%	60.00%	9.74	116 92	11.69	128.62	57 18	185 79
9	5 00%	55 00%	10 72	117 90	11 79	129 69	67.90	197 58
10	5.00%	50.00%	11 79	117 90	11 79	129.69	79.69	209.37
11	5.00%	45 00%	12.97	116 72	11.67	128.39	92.66	221 05
12	5 00%	40.00%	14 27	114.12	11.41	125.54	106 92	232.46
13	5.00%	35.00%	15 69	109 84	10 98	120 83	122.61	243 44
14	5 00%	30.00%	17 26	103 57	10 36	113 92	139.87	253 80
15	5.00%	25.00%	18 99	94.94	9.49	104.43	158.86	263 29
16	5.00%	20 00%	20.89	83 54	8 35	91 90	179 75	271.65
17	5 00%	15 00%	22 97	68 92	6 89	75 82	202.72	278 54
18	5.00%	10.00%	25 27	50.54	5.05	55 60	228.00	283.60
19	5 00%	5 00%	27.80	27 80	2 78	30 58	255.80	286 37
20	5.00%	0.00%	30 58	0 00	0.00	0 00	286.37	286 37
Total	100.00%		286 37		186.37			

ANNEXURE - I
(Sheet 3/3)

IMPACT OF PRICE ESCALATION ON THE FINAL PROJECT COST (Without Delay in Project Completion)

Planned Duration= 10 years
Price Escalation = 8.00% per annum **Original Estimate = Rs. 100 crore**

year of const.	Physical progress (in %)		Financial progress(Rs.Crore)		Escalation on balance cost		Revised Estimate	
	Work done	Balance Work	Expenditure Incurred	Balance Expenditure	Price Escalation	Revised Balance cost	Cumulative Expenditure	Revised T. Estimate
1	10.00%	90.00%	10.00	90.00	7.20	97.20	10.00	107.20
2	10.00%	80.00%	10.80	86.40	6.91	93.31	20.80	114.11
3	10.00%	70.00%	11.66	81.65	6.53	88.18	32.46	120.64
4	10.00%	60.00%	12.60	75.58	6.05	81.63	45.06	126.69
5	10.00%	50.00%	13.60	68.02	5.44	73.47	58.67	132.13
6	10.00%	40.00%	14.69	58.77	4.70	63.47	73.36	136.83
7	10.00%	30.00%	15.87	47.61	3.81	51.41	89.23	140.64
8	10.00%	20.00%	17.14	34.28	2.74	37.02	106.37	143.38
9	10.00%	10.00%	18.51	18.51	1.48	19.99	124.88	144.87
10	10.00%	0.00%	19.99	0.00	0.00	0.00	144.87	144.87
Total	100.00%		144.87		44.87			

Planned Duration= 15 years
Price Escalation = 8.00% per annum **Original Estimate = Rs. 100 crore**

year of const.	Physical progress (in %)		Financial progress(Rs.Crore)		Escalation on balance cost		Revised Estimate	
	Work done	Balance Work	Expenditure Incurred	Balance Expenditure	Price Escalation	Revised Balance cost	Cumulative Expenditure	Revised T. Estimate
1	6.67%	93.33%	6.67	93.33	7.47	100.80	6.67	107.47
2	6.67%	86.67%	7.20	93.60	7.49	101.09	13.87	114.95
3	6.67%	80.00%	7.78	93.31	7.46	100.78	21.64	122.42
4	6.67%	73.33%	8.40	92.38	7.39	99.77	30.04	129.81
5	6.67%	66.67%	9.07	90.70	7.26	97.96	39.11	137.07
6	6.67%	60.00%	9.80	88.16	7.05	95.21	48.91	144.12
7	6.67%	53.33%	10.58	84.63	6.77	91.40	59.49	150.89
8	6.67%	46.67%	11.43	79.98	6.40	86.38	70.91	157.29
9	6.67%	40.00%	12.34	74.04	5.92	79.96	83.25	163.21
10	6.67%	33.33%	13.33	66.63	5.33	71.96	96.58	168.54
11	6.67%	26.67%	14.39	57.57	4.61	62.18	110.97	173.15
12	6.67%	20.00%	15.54	46.63	3.73	50.36	126.51	176.88
13	6.67%	13.33%	16.79	33.58	2.69	36.26	143.30	179.56
14	6.67%	6.67%	18.13	18.13	1.45	19.58	161.43	181.01
15	6.67%	0.00%	19.58	0.00	0.00	0.00	181.01	181.01
Total	100.00%		181.01		81.01			

Planned Duration= 20 years
Price Escalation = 8.00% per annum **Original Estimate = Rs. 100 crore**

year of const.	Physical progress (in %)		Financial progress(Rs.Crore)		Escalation on balance cost		Revised Estimate	
	Work done	Balance Work	Expenditure Incurred	Balance Expenditure	Price Escalation	Revised Balance cost	Cumulative Expenditure	Revised T. Estimate
1	5.00%	95.00%	5.00	95.00	7.60	102.60	5.00	107.60
2	5.00%	90.00%	5.40	97.20	7.78	104.98	10.40	115.38
3	5.00%	85.00%	5.83	99.14	7.93	107.08	16.23	123.31
4	5.00%	80.00%	6.30	100.78	8.06	108.84	22.53	131.37
5	5.00%	75.00%	6.80	102.04	8.16	110.20	29.33	139.53
6	5.00%	70.00%	7.35	102.85	8.23	111.08	36.68	147.76
7	5.00%	65.00%	7.93	103.15	8.25	111.40	44.61	156.01
8	5.00%	60.00%	8.57	102.83	8.23	111.06	53.18	164.24
9	5.00%	55.00%	9.25	101.80	8.14	109.95	62.44	172.38
10	5.00%	50.00%	10.00	99.95	8.00	107.95	72.43	180.38
11	5.00%	45.00%	10.79	97.15	7.77	104.92	83.23	188.15
12	5.00%	40.00%	11.66	93.27	7.46	100.73	94.89	195.61
13	5.00%	35.00%	12.59	88.14	7.05	95.19	107.48	202.66
14	5.00%	30.00%	13.60	81.59	6.53	88.12	121.07	209.19
15	5.00%	25.00%	14.69	73.43	5.87	79.30	135.76	215.06
16	5.00%	20.00%	15.86	63.44	5.08	68.52	151.62	220.14
17	5.00%	15.00%	17.13	51.39	4.11	55.50	168.75	224.25
18	5.00%	10.00%	18.50	37.00	2.96	39.96	187.25	227.21
19	5.00%	5.00%	19.98	19.98	1.60	21.58	207.23	228.81
20	5.00%	0.00%	21.58	0.00	0.00	0.00	228.81	228.81
Total	100.00%		228.81		128.81			