2 CAPACITY CALCULATION

2-1 Grit Chamber and Screen (Hourly Maximum)

ITEM	SIGN	UNIT	CALCULATION	RESULT
Туре			Paralici Flow Type	
Design Flow	Q1	m3/day		23,100
	Q2	m3/sec	-	0.267
Water Surface Load	WSL	m3/m2/day	-	1,800
Required Surface Area	RSA	m2	Q1/WSL	12.833
Basin Number (Total)	BN	basin	-	3
Basin Number (Stand-By)	BNS	basin	=	1
Average Velocity	V	m/sec	• ·	0.30
Depth	Н	m		0.70
Width	W1	m	Q2/(V*H)	1.273
Therefore	W2	m	- : : : : : : : : : : : : : : : : : : :	1.20
Length	L1	m	RSA/W2/(BN-BNS)	5.347
Therefore	L2	m	-	5.50
Dimension (W)	W	m	W2	1.20
(L)	L	m.	1.2	5.50
(Basin)	-	basin	BN	2
(Stand-By)	-	stand-by	BNS	1
Screen Type	-	-	Fine Bar Screen	
Screen Set Number	SSN	set	BN	3
Check		UNIT	APPLICATION	RESULT
Water Surface Load	· · · · · · · · · · · · · · · · · · ·	m3/m2/day	> 1800	1,750
Average Velocity	,	m/sec	> 0.3	0.16

2-2 Complete Mixing Aerated Lagoon (Daily Maximum)

ITEM	SIGN	UNIT	CALCULATION	RESULT
Гуре		-	Rectangular Type	
Design Flow	Q1	m3/day	-	17,000
	Q2	m3/lu	-	708.33
Retention Time	T1	day		1.50
Inlet BOD Quality	So	mg/L	-	240
Required Volume	V 1	m3/basin	Q1*T	25,500
Basin Number	BN	basin	-	4
Required Volume per Basin	VBN	m3/basin	Q1*T/BN	6,375
Water Depth	H	m	-	3.00
Required Surface Area	A	m2	V/H	2,125
Width	W	m	-	60.00
Length	L1	m	A/W	35.417
Therefore	L2	m	-	36.00
Oxygen Demand Rate	PR1	kg/h	(4.16*10^-5)*r*Q1*So	255
-max. oxygen uptake	r	W/m3		1.3
Aeration Unit Power Rate	PRO	kg/h	1000*PR1/(N*Q1*T1)	5.25
Therefore	PRO	W/m3	_	5.6
-aeration performance	N	W/m3	-	1,9
Power Requirement	P1	kW		150.0
1) Oxygen Requirement	P10	kW	PR1/N	134.0
2) Mixing Power	P1M	kW	V1*P0*10^-3	153.0
Dimension (Width)	W	m	W	60.00
(Length)	L	m	L2	36,00
(Depth)	Н	m	H	3.00
(Basin)		basin	BN	
Aerator Type		-	Slanting Shaft Screw Acrator	
Check		UNIT	APPLICATION	RESULT
Retention Time		day	1.5 - 2.5	1.52

2-3 Partial Mixing Acrated Lagoon (Daily Maximum)

j

ITEM	SIGN	UNIT	CALCULATION	RESULT
Туре	_	_	Rectangular Type	
Design Flow	Q1	m3/day	-	17,000
_	Q2	m3/hr	-	708.33
Retention Time	T2	day		2.00
Required Volume	·V2	m3/basin	Q2*T	34,000
Basin Number	BN	basin	-	4
Cells Number	CN	cell/basin	-	3
Stand-by Cell Number	CNS	basin	-	
Sludge Accumulation	SA	m3/year	365*Q1*Xi/(x*10^6)	8,532
-inert solid concentration	Xi	mg/l	-	55
-weight fraction of solids	X	-	-	0.04
No. of Cells Cleaned per Year	CNC	basin	-	
Total Sludge Accumulation	TSA	m3	-	12,798
Required Volume	V	m3/cell	(Q1*T+TSA)/(BN*CN-CNS)	4,254
Water Depth	D	m		4.00
Required Surface Area	A	m2/cell	V/H	1,064
Width	W	m	_	60.00
Length	L1	m	A/W	17.726
Therefore	L1	m	-	18.00
Power Requirement	P2	kW	-	36.0
1) Mixing Power	P2M	kW	Q1*T2*CN*10^-3	34.0
Dimension (Width)	W	m	W	60.00
(Length)	L	m	L1	18.00
(Depth)	H	m ·	H	4.00
(Basin)		basin	BN	4
(Cell)		cell/basin	CN	3
(Stand-by Cell)	-	cell		1
Aerator Type	: -	-	Slanting Shaft Screw Aerator	
Check		UNIT	APPLICATION	RESULT
Surface Area		m2		12,960
Retention Time		day	2.0	2.04

2-4 Disinfection Tank (Daily Maximum)

ITEM		SIGN	UNIT	CALCULATION	RESULT
Chemical Type		-	44	Chlorination Type	
Design Flow		Q1	m3/day	-	17,000
U	F	Q2	m3/min	_	11.81
Retention Time		Т	min.	_	15.0
Basin Number		BN	basin	-	2
Required Volume		V	m3	Q2*T	89
Width		W	m	-	3.00
Water Depth		H	m		1.50
Length		L1	m	V/(W*H)	19.676
	therefore	L2	m		20.00
Dosage		D	mg/L	<u>-</u>	3.0
Required Chemical		RC1	kg/day	Q1*D*10^-3/C	51.00
	Therefore	RC2	kg/hr	RC1/24	2.13
Dimension	(Width)	W	m	W	3.00
	(Length)	L	m	I.2	20.00
	(Depth)	H	m	H	1.50
	(Depth)	BN	basin	-	2
Chlorine Feeder			unit	including 1 for stand-by	
Check	· · · · · · · · · · · · · · · · · · ·		UNIT	APPLICATION	RESULT
Retention Time			min.	> 15	15.2

Appendix 18.5 Summary of Construction Cost

Kandy - Gannoruwa

Exchange Rate =

18

Construction Cost - Master Plan : Alternatives

		Alternati	ve 1			Alternati	ve 2	
Pacilities	Specifications	Civil	M&E	Total	Specifications	Civil	M&E	Total
1. Sewer								
Sub-Total		777,683		777,683		747,251		747,251
2. Pumping Stati	on				L			
Kandy								
P/S 1	0.74*27*2	918	2,185		0.74*27*2	918	2,185	
P/S 2-1	1.74*48*2	1,383	4,211		1			
P/S 2-2	1.74*48*2	1,383	4,211					
STP-1	9.0 • 14 • 4	7,211	12,050		8.2*14*4	7,211	11,275	
STP-2	4.5*14*4	0	3,661		4,1*14*4	0	3,454	
Katugastota								
STP					1.74*24*2	1,210	2,438	
Sub-Total	1	10,895	26,317	37,212		9,339	19,351	28,690
3. Sewage Treat	ment Plant			L				
Kandy	18,000m3/day	358,896	666,558		17,000m3/day	344,809	636,899	
Katugastota					1,700m3/day		35,242	
Sub-Total	1	358,896	666,558	1,025,454		390,237	672,141	1,062,378
Total	† · · · · · · · · · · · · · · · · · · ·	1,147,474	692,875	1,840,349		1,146,827	691,492	1,838,319

Construction Cost - Feasibility Study (Original - Case A)

			M/P (Altern	ative 2)			F/S (Pha	ie 1)			Phase		
ŧ	Facilities	Specifications	Civil	M&E	Total	Specifications	Civil	M&E	Total	Specifications	Civil	M&E	Total
1, S	cwer										204040		284,060
	Sub-Total		747,251		747,251		463,191		463,191		284,060		264,000
2. P	umping Stati	on								 			
I	Kandy												
	L/S 1	0.74*27*2	918	2,185		0.74*27*2	918	2,185				4 4 7 77	
	STP-1	8.2*14*2	7,211	11,275		8.2*14*2	7,211	8,137		8.2*14*2	0	3,137	
	STP-2	4.1*14*2	0	3,454		4.1*14*2	0	1,727		4.1*14*2	0	1,727	
	Katugastota									.			
	STP	1.74*24*2	1,210	2,438			0	0		1.74*24*2	1,210	2,438	
	Suo-Total		9,339	19,351	28,690		8,129	12,049	20,178		1,210	7,302	8,512
	ewage Treati	ment Plant										l	
	Kandy	17,000m3/day	344,809	636,899	,	8,500m3/day	190,707	320,246		8,500m3/day	154,102	316,654	
$\overline{}$	Katugastota			35,242		1	0	0		1,700m3/day		35,242	
	Sub-Total	2,,	390,237	672,141	1,062,378	1	190,707	320,246	510,953		199,530	351,896	551,426
┝	Total		1,146,827	691,492	1,838,319	 	662,027	332,294	994,321		484,800	359,197	843,997

Construction Cost - Feasibility Study (Gannoruwa - Oxidation Ditch - Case B)

		M/P (Altern	ative 2)			F/S (Phas	c 1)			Phase	2	
Facilities	Specifications	Civil	M&B	Total	Specifications	Civil	M&E	Total	Specifications	Civil	M & E	Total
i. Sewer									<u> </u>	-0100		004 050
Sub-Total		821,723		821,723	L	537,663		537,663	L	284,060		284,060
2. Pumping Stati	on											
Kandy					<u> </u>							
P/S 1	0.74*27*2	918	2,185		0.74*27*2	918	2,185					
P/S 2	5.47*17*4	7,211	11,333		5.47*17*3	7,211	10,083		5.47*17*1	0	1,250	
STP	5.47*13*4	3,234	3,983		5.47*13*3	3,234	2,988		5.47*13*1	0	996	
Katugastota												
SIP	1.74*24*2	1,210	2,438		1	0	0		1.74*24*2	1,210	2,438	
Sub-Total		12,573	19,939	32,512		11,363	15,255	26,618		1,210	4,684	5,894
3. Sewage Treat	ment Plant											
Kandy	17,000m3/day	334,076	636,783		8,500m3/day	185,341	318,392		8,500m3/day		318,392	
Katugastota		45,428	35,242			0	0		1,700m3/day		35,242	
Sub-Total	2,1.551114,523	379,504	672,025	1,051,529		185,341	318,392	503,733	I	194,163	353,634	547,79
Total		1,213,800	691,964	1,905,764		734,367	333,647	1,068,014	Ι	479,433	358,317	837,750

Construction Cost - Feasibility Study (Gannoruwa - Aerated Lagoon - CaseC)

		M/P (Altern	ative 2)			F/S (Pha	se 1)			Phase	2	
Facilities	Specifications	Civil	M&B	Total	Specifications	Civil	M&B	Total	Specifications	Civil	M&E	Total
1. Sewer	- · · · · ·		1									
Sub-Tota		821,723		821,723		537,663		537,663		284,060		284,060
2. Pumping S	ation											
Kandy												
P/S 1	0.74*27*2	918	2,185		0.74*27*2	918	2,185					
P/S 2	5.47*17*4	7,211	11,333		5.47*17*3	7,211	10,083		5.47*17*1	0	1,250	
STP	5.47*13*4	3,234	3,983		5.47*13*3	3,234	2,988		5.47*13*1	0	996	
Katugast	ota						L					
ISTP	1.74*24*2	1,210	2,438			0	. 0		1.74*24*2	1,210	2,438	
Sub-Tota	1	12,573	19,939	32,512		11,363	15,255	26,618		1,210	4,684	5,894
3. Sewage Tr	eatment Plant											
Kandy	17.000m3/day	408,341	237,086		8,500m3/day	209,420	119,383		8,500m3/day		117,703	<u> </u>
Katugast			35,242			0	0		1,700m3/day	45,428	35,242	
Sub-Tota		453,769	272,328	726,097		209,420	119,383	328,803		244,349	152,945	397,294
Total		1,288,065		1,580,332		758,446	134,638	893,084		529,619	157,629	687,248

Appendix 18.6 Cost of Sewer (Gannoruwa)

				(Unit: Rs)	Master Plan	i	Feasibility S	Study
ITEM	DESCRIPTION	Depth	UNIT	RATE	QUANTITY	COST	QUANTITY	COST
HP Pipe Laying	825 mm	1.5	m	20,005	2,150	43,010,750	2,150	43,010,750
	825 mm	2.5	m	23,413	300	7,023,900	300	7,023,900
DI Pipe Laying	350 mm	1.5	m	12,932	150	1,939,800	150	1,939,800
	500 mm	1.5	m	19,883	900	17,894,700	900	17,894,700
Manhole	Type 2	2	Nr	93,941	49	4,603,109	49	4,603,109
TOTAL	Sewer Main + Later	ral		0	3,500	74,472,259		74,472,259
	Sewer Main				3,500			

Appendix 18.7 Storage Capacity of Sewer (Gannoruwa)



Phase 1 (2005)

1. Getambe Pumping Station

- (1) Sewage Flow $Q_{HM} = 12,200 \text{ m}^3/\text{day} = 508\text{m}^3/\text{hour}$ (Hourly Maximum Sewage Flow to STP)
- (2) Sewer to be used for Sewage
 Since Pumping Station is located at GL+468m, sewers with invert level of +467m is considered to use for sewer storage. Length and Pipe Nos. of these sewers are as follows;
 Φ825. L = 600m (Allowance 50%)

(Assumption)

(3) Manhole

Nos. of Manhole
$$\frac{600}{50} = 12$$
 (50m pitch)

Manhole Depth 2.5m (Assumption)

- (4) Calculation of Storage Capocity
 - a) Sewer

$$\frac{0.825^2 \times 3.14}{4} \times 600 \times (1 - \frac{1}{1.5}) = 106.9 \text{ m}^3$$

b) Manhole

$$\frac{1.2^2 \times 3.14}{4} \times (2.5 - 0.825) \times 12 = 22.7 \text{m}^3$$

Total 129.6m³

(5) Storage Time

$$\frac{129.6 \text{ m}^3}{508 \text{ m}^3/\text{hour}} = 0.26 \text{ hour} = 15.3 \text{ min}$$

Appendix 18:8 Annual Operation and Maintenance Cost
Kandy - Generativa
Kandy (Original) -- Care A
Mand Fin. Alternativ 3 (9th Applied)

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Kandy (Gannotuwa - Acrated Legoon) --- Case C

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		L	120				ľ			١.					
	Spare Parts	Lŧ	774,705					ě.	_		•	Man Poper		Spare Parts	
	306,600	ŀ	9.296.466					160.71	6,787,385			1,002,000		1,316,310	
		ı													

Mas Fower 1,836,000

Appendix 18.9 Financial Analysis for Case B

Appendix 18.9.1	Pro-forma Financial Statements - Kandy Sewerage Project (Master Plan, Case B-1)
Appendix 18.9.2	Calculation of FIRR - Kandy Sewerage Project (Master Plan, Case B-1)
Appendix 18.9.3	Pro-forma Financial Statements - Kandy Sewerage Project (Master Plan, Case B-2)
Appendix 18.9.4	Calculation of FIRR - Kandy Sewerage Project (Master Plan, Case B-2)
Appendix 18.9.5	Pro-forma Financial Statements - Kandy Sewerage Project (Feasibility Study, Case B-1)
Appendix 18.9.6	Calculation of FIRR - Kandy Sewerage Project (Feasibility Study, Case B-1)
Appendix 18.9.7	Pro-forma Financial Statements - Kandy Sewerage Project (Feasibility Study, Case B-2)
Appendix 18.9.8	Calculation of FIRR - Kandy Sewerage Project (Feasibility Study, Case B-2)

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	Pro R	verma F	Pro Forms Financial Statements (M Rs.)	State	ments	(MR	(3)			ase B-	1 100	Case B-1 100 % subsidy	idv											
	Kandy	Sewel	Kandy Sewerage Project (M/P)	oject (M/P)		ì			.0 % t	arriff in	crease	1.0 % tariff increase in real terms	terms										
Year	2027	2028	2029	2030	1697	2632	2033	2034	2635	2036	2037	2038	2039 2	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Fund Flow Table Annual Sales Subsidy from GSL Loan (10% Interest)	489.7 0.0 0.0	544.0 5,001.7 0.0	604.4 0.0 0.0	671.5 0.0 0.0	746.0 0.0 0.0	828.8 0.0 0.0	920.8 8.062.0 0.0	0.0	1,136.6 0.0 0.0	1,262.8 0.0 0.0	0.0	1,558.6 I 0.0 0.0	0.0 0.0	2,923.9 2 0.0 0.0	2.137.4 2 0.0 0.0	2,374.7 2 0.0 20 0.0	2,638.3 2 20,893.3 0.0	2,931.1 3 0.0 0.0	3,256.5 3 0.0 0.0	3,617.9 4 0.0 0.0	4,019.5 4 0.0 33	4,465.7 4 33,677.1 0.0	4,961.4 · 5 0.0 0.0	5,512.1 0.0 0.0
Capital Investment Interest Payment (10%) Annual Loan Repayment O & M Overhead (10 % of Sales)	0.0 0.0 0.0 0.0 413.0 0.94	5,001.7 0.0 0.0 454.3 54.4	0.0 0.0 0.0 499.7 60.4	0.0 0.0 0.0 549.7 67.1	0.0 0.0 0.0 604.6 74.6	0.0 0.0 0.0 665.1 82.9	8.062.0 0.0 0.0 731.6 92.1	0.0 0.0 0.0 804.8 102.3	0.0 0.0 0.0 885.3 113.7	0.0 0.0 973.8 126.3	0.0 0.0 0.0 1.071.2 140.3	0.0 0.0 0.0 1,178.3 1 155.9	0.0 0.0 0.0 1,296.1 173.2	0.0 0.0 0.0 1,425.7 1 192.4	0.0 0.0 0.0 1,568.3	0.0 20 0.0 0.0 1,725.1 1 237.5	20,893.3 0.0 0.0 1,897.6 2 263.8	0.0 0.0 0.0 2,087.4 2 293.1	0.0 0.0 0.0 2,296.1 2 325.6	0.0 0.0 0.0 2,525.7 2 361.8	0.0 33 0.0 0.0 2,778.3 3 402.0	35,677.1 0.0 3.056.2 446.6	0.0 0.0 0.0 3,361.8 3,96.1	0.0 0.0 0.0 3.697.9 551.2
Net Cash Inflow	7.72	35.3	44.3	54.7	8.99	80.8	97.1	116.0	137.7	162.7	191.5	224.5	262.4	305.8	355.4	412.1	476.8	550.6	634.7	730.4	839.3	963.0 1	1.103.5	1,262.9
Worlding Capital Barden Cumulative cash deficit 10% interst on above Cum. interst Payment	(140.1) (14.0) (257.3)	(104.7) (10.5) (267.7)	(60.5) (6.0) (273.8)	(5.8) (0.6) (274.4)	61.0 6.1 (268.3)	141.8 14.2 (254.1)	238.9 23.9 (230.2)	354.9 35.5 (194.7)	492.6 49.3 (145.5)	655.3 65.5 (79.9)	846.7 1 84.7 4.7	1,071.2 1 107.1 111.9	133.4 133.4 245.2	1,639.4 1, 163.9 409.2	1994.8 2 199.5 608.6	2,406.9 2 240.7 849.3 1	2,885.7 3 2,88.4 1,137.7 1	3,434,3 4 343.4 1,481.1 1	4,069.0 4, 406.9 1,888.0 2	4,799.4 S, 479.9 2,368.0 2.	5,638.6 6 563.9 2,931.8 3	6,601.6 7 660.2 3,592.0 4	7,705.1 8 770.5 4,362.5 5	8,968.0 896.8 5,259.3
Income Statement Annual Sales	489.7	544.0	604.4	671.5	746.0	828.8	920.8	1,023.0	1,136.6	1,262.8	1,402.9	1,558.6	1,731.7	1,923.9 2	2,137.4 2	2,374.7	2,638.3 2	2,931.1 3	3,256.5 3	3.617.9 4	4,019.5 4	4,465.7 4	4,961.4 5	5,512.1
O & M Overhead (10 % of Sales) Annual Depreciation Interest Payment (10%)	413.0 49.0 0.0	454.3 0.0 0.0	499.7 60.4 0.0 0.0	549.7 67.1 0.0 0.0	604.6 74.6 0.0 0.0	665.1 82.9 0.0 0.0	731.6 92.1 0.0 0.0	804.8 102.3 0.0 0.0	885.3 113.7 0.0	973.8 126.3 0.0	1,071.2 140.3 0.0 0.0	1,178.3 1 155.9 0.0 0.0	1,296.1 1, 173.2 0.0 0.0	1,425.7 1 192.4 0.0 0.0	1,568.3 1 213.7 0.0 0.0	1,725.1 237.5 0.0 0.0	1,897.6 2 263.8 0.0 0.0	2,087.4 2 293.1 0.0 0.0	2,296.1 2 325.6 0.0 0.0	2,525.7 2 361.8 0.0 0.0	2,778.3 3 402.0 0.0 0.0	3,056.2 446.6 0.0 0.0	3,361.8 3 496.1 0.0 0.0	3,697.9 551.2 0.0 0.0
Net Income	27.7	35.3	44.3	54.7	8.59	80.8	97.1	116.0	137.7	162.7	191.5	224.5	262.4	305.8	355.4	412.1	476.8	550.6	634.7	730.4	839.3	963.0	1,103,5 1	1,262.9
Ralance Sheet Cash Captal Investment Less Accum. Depreciation Land Total Assets	(140.1) 9,474.6 0.0 148.9 9,483.5	(104.7) (60.5) 14,476.3 14,476.3 0.0 0.0 148.9 148.9 14,520.5 14,564.8	(104.7) (60.5) (5.8) 61.0 14.76.5 14.476.3 14.476.3 0.0 0.0 0.0 148.9 148.9 148.9 148.9 14.520.5 14.564.8 14.619.4 14.686.2	(5.8) 61.0 14,476.3 14,476.3 0.0 0.0 148.9 148.9 14,619.4 14,686.2		141.8 14,476.3 2 0.0 148.9 14,767.1 2	238.9 22,538.4 2 0.0 148.9 22,926.2 2	354.9 22,538.4 2 0.0 148.9 23,042.2 2	492.6 22,538.4 2 0.0 148.9 23,179.8 2	655.3 22,538.4 Z 0.0 148.9 23,342.5 Z	846.7 1 22,538.4 2 0.0 148.9 23,534.0 23	1,071.2 1 22,538.4 22 0.0 148.9 23,758.5 24	1,333.6 1, 22,538.4 22 0.0 148.9 24,020.9 24	1,639.4 1 22,538.4 22 0.0 148.9 24,326.7 24	1,994.8 2 22,538.4 22 0.0 148.9 24,682.1 25	2,406,9 2 22,538,4 43 0.0 148,9 25,094,1 46	2,883.7 3 43,431.7 43 0.0 148.9 46,464.3 47	3,434,3 4 43,431,7 43 0.0 148,9 47,014,9 47	4,069.0 4 43,431.7 43 0.0 148.9 47,649.6 48	4,799.4 5, 43,431.7 43 0.0 148.9 48,380.0 49	5,638.6 6 43,431.7 77 0.0 148.9 49,219.2 83	6,601.6 7 77,108.8 77 0.0 148.9 83,859.3 84	7,705.1 8 77,108.8 77 0.0 148.9 84,962.8 86	8,968.0 77,108.8 0.0 148.9 86,225.7
Loan Balance Grant from GSL Reserved Fund Total Liab. & Capital	9,623.6 (140.1) 9,483.5	0.0 0.0 0.0 5,823.6 14,625.3 14,625.3 (140.1) (104.7) (60.5) 5,483.5 14,520.5 14,564.8	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 14,625.3 14,625.3 (5.8) 61.0 14,619.4 14,686.2	0.0 0.0 14,625.3 14,625.3 61.0 141.8 14,686.2 14,767.1		0.0 22,687.3 2 238.9 22,926.2 2	0.0 22,687.3 2 354.9 23,042.2 2	0.0 22,687.3 2 492.6 23,179.8 2	0.0 22,687.3 22 655.3 23,342.5 22	0.0 22,687.3 22 846.7 1 23,534.0 22	0.0 22,687.3 22 1,071.2 1 23,758.5 24	0.0 22,687.3 22 1,333.6 1, 24,020.9 24	0.0 22,687.3 22 1,639.4 1 24,326.7 24	0.0 22,687.3 22 1,994.8 2 24,682.1 25	0.0 22,687.3 43 2,406.9 2 25,094.1 46	0.0 43,580.6 43 2,883.7 3 46,464.3 47	0.0 43,580.6 43 3,434.3 4 47,014.9 47	0.0 43,580.6 43 4,069.0 4 47,649.6 48	0.0 43,580.6 43 4,799.4 5, 48,380.0 49	0.0 43,580.6 77 5,638.6 6 49,219.2 83	0.0 77,227.7 6,601.6 83,859.3	0.0 77,257.7 7,705.1 8	0.0 77,257.7 8,968.0 86,225.7

Calculation of FIRR Kandy Sewerage Project (M/P) Case B-1

Year	Vol	ume	Τa	riff	Revenue	Investment	O&M	ОН	Net Inflow	(1998 Pric
1 Cai	Dom	Non-Dom	Dom	Non-Dom	Total	президен	Occial	UII	Net tilllow	TIKK
	cum/d	cum/d	Rs./cum	Rs./cum	M Rs./Y	M Rs	M Rs	M Rs	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
4000	Cum/u	cuma	KS./Cuin	Rs./cum	WI KS./ I	IVI KS	IVI ICS	IVI KS	M Rs	
2000	ļ	ļ		ļ				·		
2001						147.0			0.00	
2002						552.0			0.00	
2003						986.0			0.00	
2004	404	1,102	2.0	6.0	2.7		6.65	0.27	(4.21)	
2005	829	2,259	2.0	6.1	5.6		8.81	0.56	(3.76)	
2006	1,273	3,469	2.0	6.1	8.7		10.98	0.87	(3.15)	
2007	1,737	4,736	2.1	6.2	12.0		13.14	1.20	(2.35)	
2008	1,779	4,850	2.1	6.2	12.4		13.14	1.24	(1.98)	
2009	1,822	4,966	2.1	6.3	12.8		13.14	1.28	(1.59)	
2010	1,866	5,086	2.1	6.4	13.3		13.14	1.33	(1.20)	
2011	1,907	5,198	2.1	6.4	13.7	83.0	13.14	1.37	(0.81)	
2012	1,949	5,312	2.2	6.5	14.1	377.0	13.14	1.41	(0.41)	
2013	1,991	5,429	2.2	6.6	14.6	810.0	13.14	1.46	(0.01)	
2014	2,941	6,204	2.2	6.6	17.4		19.68	1.74	(4.03)	
2015	3,828	6,770	2.2	6.7	19.7		21.80	1.97	(4.10)	
2016	4,679	7,326	2.3	6.8	21.9		23.91	2.19	(4.18)	
2017	5,549	7,871	2.3	6.8	24.2		26.03	2.42	(4.23)	
2018	5,660	8,028	2.3	6.9	25.0	286.9	26.03	2.50	(3.57)	
2019	5,774	8,189	2.3	7.0	25.7		26.03	2.57	(2.89)	
2020	5,889	8,352	2.3	7.0	26.5		26.03	2.65	(2.19)	
2021	6,007	8,619	2.4	7.1	27.5		26.03	2.75	(1.24)	
2022	6,127	8,690	2.4	7.2	28.1		26.03	2.81	(0.73)	
2023	6,250	8,864	2.4	7.2	29.0		26.03	2.90	0.03	
2024	6,375	9,041	2.4	7.3	29.8		26.03	2.98	0.82	
2025	6,401	9,078	2.5	7.4	30.3		26.03	3.03	1.20	
2026	6,401	9,078	2.5	7.5	30.6		26.03	3.06	1.47	
2027	6,401	9,078	2.5	7.5	30.9		26.03	3.09	1.75	
2028	6,401	9,078	2.5	7.6	31.2	286.6	26.03	3.12	2.02	
2029	6,401	9,078	2.6	7.7	31.5	200.0	26.03	3.15	2.31	
2030	6,401	9,078	2.6	7.8	31.8		26.03	3.18	2.59	
2031	6,401	9,078	2.6	7.8	32.1		26.03	3.21	2.88	
2032	6,401	9,078	2.6	7.9	32.4		26.03	3.24	3.16	
2033	6,401	9,078	2.7	8.0	32.8	286.9	26.03	3.28	3.46	
2034	6,401	9,078	2.7	8.1	33.1	200.9	26.03	3.31	3.75	
2035	6,401	9,078	2.7	8.2	33.4		26.03	3.34	4.05	
	6,401	9,078	2.7	8.2	33.8		26.03	3.38	4.05	
2036 2037	6,401	9,078	2.8	8.3	34.1		26.03	3.41	4.65	
	6,401	9,078							4.03	
2038		9,078	2.8	8.4	34.4	 	26.03	3.44		
2039	6,401	0.000		8.5	34.8		26.03	3.48	5.27	
2040	6,401	9,078	2.9	8.6	35.1		26.03	3.51	5.58	
2041	6,401	9,078		8.7	35.5		26.03	3.55	5.90	····································
2042	6,401	9,078	2.9	8.8	35.8	2000	26.03	3.58	6.22	
2043	6,401	9,078	2.9	8.8	36.2	286.6	26.03	3.62	6.54	
2044	6,401	9,078	3.0	8.9	36.6		26.03	3.66	6.87	
2045	6,401	9,078	3.0	9.0	36.9	ļ	26.03	3.69	7.20	
2046	6,401	9,078	3.0	9.1	37.3		26.03	3.73	7.53	
2047	6,401	9,078	3.1	9.2	37.7		26.03	3.77	7.86	
2048	6,401	9,078	3.1	9.3	38.0	286.9	26.03	3.80	8.20	
2049	6,401	9,078	3.1	9.4	38.4		26.03	3.84	8.55	
2050	6,401	9,078	3.2	9.5	38.8	(406.0)	26.03	3.88	8.89	3.67%

- 1. 1 % annual tariff increase in real terms.
- 2. Unit tariff of Non Domestic User is 3 times of Domestic User.
- 3. 100 % subsidy for capital investment.
- 4. Overhead is assumed to be 10% of Revenue.
- 5. Investment Cost in 2050 is assumed salvege value.

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	Pro Kar	Forn	aa Fin ewera;	Pro Forma Financial Statemen Kandy Sewerage Project (M/P	State ject (l	ments M/P)	Pro Forma Financial Statements (MRs.) Kandy Sewerage Project (M/P)	Rs.)	U A	Case B-2 1.0 % tari	ariffi	90 % subsidy ff increase in	Case B-2 90 % subsidy 1.0 % tariff increase in real terms	eal ter	SILL												
Year	2000	2000 2001	2002	2003	2004	2005	2006	2007	2008 2	2009 2	2010 2	2011 20	2012 2013		2014 20	2015 20	2016 20	2017 20	2018 20	2019 20.	2020 20	2021 20	2022 20	2023 20	2024 20	2028 2	9202
Fund Flow Table Annual Sales Subsidy from GSL Loan (10% Interest)	0.0	0.0 176.1 19.6	0.0 727.4 80.8	0.0 1,429.2 158.8	0.0	17.4 0.0 0.0	29.7 0.0 0.0	5.1 0.0 0.0	51.3 0.0 0.0	58.3 0.0 0.0	66.4 0.0 0.0	75.4 257.9 1,2 28.7 1	85.6 3,04 1,288.5 3,04 143.2 33	97.2 1 3,045.2 338.4	0.0 0.0	0.0 0.0 0.0	288.9 0.0 0.0	228.2 0.0 1,7 0.0	258.5 25 737.0 193.0	293.0 0.0 0.0	332.0 34 0.0 0.0	383.1 4 0.0 0.0	426.4 0.0 0.0	63.2 \$ 0.0 0.0	0.0 0.0	0.0	678.6 0.0 0.0
Capital Investment (10%) Interest Payment (10%) Annual Loan Repayment O & M Overhead (10 % of Sales)	000000	2.0 0.0 0.0 0.0	808.2 10.0 0.0 0.0	1.588.0 25.8 0.9 0.0	0.0 25.4 4.6 0.8 0.8	0.0 24.2 11.8 17.2 1.7	23.0 23.0 11.8 23.5 3.0	0.0 21.8 11.8 31.0 4.5	0.0 20.7 11.8 34.1 5.1	0.0 195 11.8 2.8 8.8	0.0 2 18.3 11.8 41.2 6.6	286.5 1.4 20.0 11.8 45.4	431.7 3,33 33.1 (11.8 49.9 (8.6	3,383.6 65.7 13.1 54.9 9.7	0.0 63.7 19.6 12.6	00 602 350 1102 153	0.0 56.7 35.0 133.0 1	0.0 1,9 53.2 35.0 159.2 1 22.8	930.0 69.0 35.0 175.1 25.9	0.0 65.5 35.0 192.7 29.3	61.1 43.7 21.19 33.2	25.8 43.7 233.1 2	256.4 23	0.0 48.0 43.7 282.1 3	0.0 43.6 43.7 310.3 54.8	39.4 42.9 341.3 61.1	0.0 35.4 39.2 375.4 67.9
Net Cash Inflow	0.0	(2.0)	(10.0)	(26.7)	(34.1)	(35.7)	(28.6)	(19.5)	(15.2)	(10.4)	(4.9)	(1.8)	(9.2)	(36.5)	;) (67.9)	(205)	(35.7)	(19.2)	(20.6)	(0.1)	15.2 4	46.5	73.8 10	109.4	149.9	187.3	228.6
Worlding Capital Burden Cumulative cash deficit 10% interst on above Curt. Interst Payment		(0.2) (0.2) 0.2	(12.0) (1.2) 1.0	(38.7) (3.9) 2.9	(72.8) (7.3) (4.4)	(108.5) (10.9) (15.3)	(137.1) (13.7) (29.0)	(156.6) ((15.7) (44.6)	(171.9) (17.2) (61.8)	(1823) (1 (182) (1 (80.0)	(187.2) (1 (18.7) (1 (98.8) (1	(189.0) (19 (18.9) (1 (117.7) (11	(1982) (19.8) (19.8) (137.5) (14	(234.6) (23.5) (160.9)	(2825) (3 (283) (4 (1892) (2	63.25 (63.35) (22.22)	(368.5) (3 (36.8) ((259.3) (2	(387.7) (4 (38.8) ((298.1) (3)	(408.3) (40 (40.8) (4 (338.9) (37	(408.4) (39 (40.8) (3 (379.8) (41	(393.2) (34 (39.3) (3 (419.1) (45	(346.7) (2. (34.7) (7. (453.7) (4.	(272.9) (16 (27.3) (1 (481.0) (49	(163.5) ((16.3) (497.4) (4:	(13.6) 1 (1.4) (498.7) (4	173.8 17.4 (481.4) (4	402.4 40.2 (441.1)
Income Statement Annual Sales	0.0	0.0	0.0	0.0	2.6	17.4	29.7	45.1	513	58.3	66.4	75.4	85.6	97.2 1	125.8	155.1	188.9	228.2	258.5 25	293.0 33	332.0 34	380.1 4:	426.4 40	483.2 \$	547.6	610.8	678.6
O& M Overhead (10 % of Sales) Annual Depreciation Interest Payment (10%)	000	2000	0.0	0.0 0.0 6.9 8.58	11.8 0.8 6.9 25.4	17.2 1.7 6.9 24.2	23.5 6.9 23.0	31.0 4.5 6.9 21.8	34.1 5.1 6.9 20.7	37.5 5.8 6.9 19.5	41.2 6.6 6.9 18.3	45.4 7.5 7.4 20.0	49.9 8.6 10.2 33.1	2.6. 7.9. 7.8. 7.8.	90.4 1 12.6 22.0 63.7	110.2 15.5 22.0 60.2	133.0 1 18.9 22.0 56.7	22.8 22.0 23.0	175.1 15 25.9 2 31.8 3 69.0 6	192.7 21 29.3 3 31.8 5	211.9 22 33.2 3 31.8 5	233.1 2 38.0 31.8 56.8	256.4 24 42.6 31.8 52.4	282.1 3 48.3 31.8 48.0	310.5 54.8 51.8 43.6	341.3 61.1 31.8 39.4	375.4 67.9 31.8 35.4
Net Income	0.0	(2.2)	(6.11)	(32.8)	(37.2)	(32.6)	(26.7)	(19.2)	(15.5)	(11.4)	(6.7)	(6.9)	(16.3) (3	(55.1) ((629)) (8.28)	(41.6)	(29.1)	(43.3). (2	(263)	(6.0)	20.4	43.1)1 0.67	107.1	137.3	168.1
Balance Sheet Cash Capital Investment Less Accum. Depreciation Land Total Assets		(2.0) -17.3 0.2 213.0 193.5	(12.0) 790.9 2 2.1 213.0 989.8 2	(38.7) 2,378.8 2 9,0 2,544.1 2	(72.8) (2,378.8 2 16.0 213.0 2,503.1 2	(108.5) (378.8 2 22.9 213.0 (460.4 2	(137.1) (2,378.8 2, 29.9 213.0 2,424.8 2,	(156.6) (2,378.8 2, 36.8 213.0 2,398.3 2,	(171.9) (1 2,378.8 2; 43.8 213.0 2 2,376.2 2;	(182.3) (1 2,378.8 2,3 50.7 213.0 2 2,358.8 2,2				•			and the second second	• • •		٠. 🏎			-	7	•	0, 5,	402.4 43.41.5 471.4 282.0 554.5
Loan Balance Grant from GSL Reserved Fund Total Liab. & Capital		19.6 176.1 (2.2) 193.5	100.4 903.5 2 (14.1) 989.8 2	258.3 253.7 2,332.6 2,332.6 (46.9) (83.3) 2,544.1 2,503.1	,, ,,	241.9 2,332.6 (114.2) 2,460.4	230.2 2,332.6 2, (138.0) (2,424.8 2,	218.4 2,332.6 2, (152.7) (2,398.3 2,	206.6 2,332.6 2,332.6 2,376.2 2,376.2 2,376.2	194.8 1 2,332.6 2,3 (168.6) (1 2,358.8 2,3	183.0 1 2,332.6 2,5 (168.7) (1 2,346.9 2,6	199.9 3, 2,590.5 3,8 (166.1) (1, 2,624.3 4,0	331.3 6: 3,879.0 6,93 (173.8) (21 4,036.5 7,30	656.6 6 6,924.2 6,9 (219.2) (20 7,361.6 7,2	637.0 6 6,924.2 6,9 (269.4) (3(602.0 s 6,924.2 6,9 (306.7) (3; 1,719.5 1,1	567.0 5 6,924.2 6.9 (329.5) (3 7,161.8 7,1	532.1 6 6.924.2 8,6 (335.7) (3 7,120.6 8,9	690.1 65 8,661.2 8,66 (353.1) (35 8,998.2 8,96	655.1 61 8,661.2 8,66 (350.1) (32 8,966.3 8,94	611.4 50 8,661.2 8,66 (322.9) (26 8,949.7 8,96	567.6 5. 8,661.2 8,6 (264.5) (1; 8,964.4 9,00	523.9 #8,661.2 8.64 (178.7) (5,006.4 9,00	480.2 8.661.2 8,6 (57.3) 16 9,084.0 9,0	436.4 3 8,661.2 8,6 104.5 3 9,202.1 9,3	393.6 : 8,661.2 8,6 : 302.9 : 9,357.7 9,2	354.4 8,661.2 538.9 9,554.5
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	Pro Fo Kandy	Sewer	Pro Forma Financial Statements (MRs.) Kandy Sewerage Project (MP)	al State oject (ments M/P)	(MR	(3)		<u> </u>	ase B. 0 % t	ariffin	Case B-2 90 % subsidy 1.0 % tariff increase in	Case B-2 90 % subsidy 1.0 % tariff increase in real terms	terms										
Year	2027	2028	2029	2030		2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042 2	2043 2	2044 2	2045 2	2046 2	2047	2048	2049	2050
Fund Flow Table Annual Sales Subsidy from GSL Loan (10% Interest)	0.0	837.7 4,501.5 500.2	930.6	1,033.9 0.0 0.0	1,148.7	1,276.2 0.0	1,417.9 7,255.8 806.2	0.0 0.0	1,750.1 0.0 0.0	1,944.4	2,160.2 0.0 0.0	2,400.0 2	2,666.4 2 0.0 0.0	2,962.4 3 0.0 0.0	3,291.2 0.0 0.0	3,656.5 4 0.0 18, 0.0 2,	4,062.4 4, 18,804.0 2,089.3	4,513.3 5,0 0.0 0.0	5,014.3 5, 0.0 0.0	\$,570.9 0.0 0.0	6,189.2 6, 0.0 30, 0.0 3	6,876.3 7 30,309.4 3,367.7	8 5.639.5 0.0 0.0	8,487.5 0.0 0.0
Capital Investment Interest Payment (10%) Annual Loan Repayment O & M Overhead (10 % of Sales)	32.0 32.0 413.0 75.4	5,001.7 79.1 32.0 454.3 83.8	0.0 75.9 32.0 499.7 93.1	0.0 70.4 54.7 549.7 103.4	0.0 64.9 54.7 604.6	0.0 59.5 54.7 665.1 127.6	8,062.0 134.6 54.7 731.6 141.8	0.0 129.1 54.7 804.8 157.5	0.0 120.1 90.0 885.3 175.0	0.0 111.8 83.5 973.8 194.4	0.0 105.0 68.2 1.071.2 216.0	0.0 98.1 68.2 1,178.3 1	0.0 91.3 68.2 296.1	0.0 84.5 68.2 1,425.7 1 296.2	0.0 77.7 68.2 1,568.3 1 329.1	0.0 20, 71.8 59.4 1,725.1 1, 365.7	20,893.3 274.8 59.4 1,897.6 2,	0.0 268.8 59.4 2,087.4 2, 451.3	0.0 253.4 154.4 2296.1 2, 501.4	0.0 238.0 154.4 2.525.7 2, 557.1	0.0 33 222.5 154.4 2,778.3 3 618.9	53,677.1 543.9 154.4 3,056.2 687.6	0.0 528.4 154.4 3,361.8 3 764.0	0.0 497.7 307.4 3,697.9 848.8
Net Cash Inflow	276.8	272.4	323.1	359.2	424.4	497.0	497.0	586.7	654.7	7753	87516	1,055.4	1,210.8	1,384.0	1,577.0	1,800.3 I,	1,830.6 2,	2,097.7 2,	2,310.4 2,	2,652.8 3,	3,034.1 3.	3,121.9 3	3,595.0 3	3,984.5
Working Capital Burden Cumulative cash deficit 10% interst on above Cum. Interst Payment	679.1 67.9 (373.2)	951.5 95.2 (278.1)	1,274.6 127.5 (150.6)	1,633.8 163.4 12.8	2,058.2 205.8 218.6	2,555.2 255.5 474.1	3,052.2 305.2 779.3	3,638.8 363.9 1,143.2	4,293.5 429.4 1,572.6	5,068.8 506.9 2,079.5	5,984.7 598.5 2,677.9	7,040.2 8 704.0 3,382.0 4	8,251.0 9 825.1 4,207.1 5	9,634.9 11 963.5 1 5,170.5 6	11,212.0 13 1,121.2 1 6,291.7 7	13,012.2 14, 1,301.2 1, 7,593.0 9,	14,842.9 16, 1,484.3 1, 9,077.3 10,	16,940,6 19, 1,694,1 1, 10,771,3 12,	19,251.0 21, 1,925.1 2, 12,696.4 14,	21,903.8 24, 2,190.4 2, 14,686.8 17,	24,937.9 28 2,493.8 2 17,380.6 20	28.059.8 31 2.806.0 3 20,186.6 23	31,654.8 35 3,165.5 3 23,352.0 26	35,639.2 3,563.9 26,916.0
Income Statement Annual Sales	754.0	837.7	930.6	1,033.9	1,148.7	1,276.2	1,417.9	1,575.3	1,750.1	1,944.4	2,160.2	2,400.0	2,666.4 2	2,962.4	3,291.2	3,656.5 4	4,062.4 4	4,513.3 5,	5,014,3 5.	5,570.9 6,	6,139.2 6	6.876.3 7	7,639.5	8,487.5
O& M Overhead (10 % of Sales) Annual Depreciation Interes: Payment (10%)	413.0 75.4 31.8 32.2	454.3 83.8 57.2 79.1	499.7 93.1 57.2 75.9	549.7 103.4 57.2 70.4	604.6 114.9 57.2 64.9	665.1 127.6 57.2 59.5	731.6 141.8 98.0 134.6	804.8 157.5 98.0 129.1	885.3 175.0 98.0 120.1	973.8 194.4 98.0 111.8	216.0 216.0 98.0 105.0	240.0 240.0 98.0 98.1	1,296.1 1 266.6 98.0 91.3	296.2 296.2 98.0 84.5	1,568.3 329.1 98.0 77.7	1,725.1 1 365.7 98.0 71.8	,897.6 2 406.2 204.0 274.8	2,087.4 2, 451.3 204.0 268.8	2,296.1 2 501.4 204.0 253.4	2,525.7 2 557.1 204.0 238.0	2,778.3 3 618.9 204.0 222.5	3,056.2 3 687.6 374.7 543.9	3,361.8 3 764.0 374.7 528.4	3,697.9 848.8 374.7 497.7
Net Income	201.6	163.4	204.9	253.3	307.1	366.9	311.8	385.8	471.7	566.4	0.079	785.5	914.3	1,057.9	1,218.0	1,395,9 1	1,279.8	1,501.8 1,	1,759.4 2.	2,046.1 2,	2,365.5 2	2,213.9 2	2,610.6 3	3,068.4
Rainace Sheet Cash Capital Investment Less Accum. Depreciation Land Total Assets	679.1 9,341.5 503.2 282.0 9,799.5	951.5 14,343.2 560.4 282.0 15,016.4	1,274.6 14,343.2 617.5 282.0 15,282.3	1,633.8 14,343.2 674.7 282.0 15,584.4	2,058.2 14,343.2 731.8 282.0 15,951.7	2,555.2 14,343.2 789.0 282.0 16,391.5	3,052.2 22,405.3 887.0 282.0 24,852.4	3,638.8 22,405.3 2 985.0 282.0 25,341.1 2	4,293.5 22,405.3 1,083.1 282.0 25,897.7	5,068.8 22,405.3 1,181.1 282.0 26,575.0	5,984.7 22,405.3 2 1,279.1 282.0 27,392.9 2	7,040.2 8 22,405.3 2: 1,377.2 3 282.0 28,350.3 23	8,251.0 9 22,405.3 22 1,475.2 1 282.0 29,463.0 30	9,634,9 11 22,405,3 2; 1,573,2 3 282,0 30,749,0 3;	11,212.0 13 22,405.3 23 1,671.3 282.0 33,228.0 33	13,012.2 14 22,405.3 43 1,769.3 1 282.0 33,930.2 56	14,842.9 16 43,298.6 43 1,973.3 2 282.0 56,450.2 58	16,940.6 19, 43,298.6 43, 2,177.3 2, 282.0 58,343.9 60	19,251.0 21, 43,298.6 45 2,381.2 2 282.0 60,450.4 62	21,905.8 24, 45,298.6 43, 2,585.2 2, 282.0 62,899.2 65	24,937.9 28 43,298.6 76 2,789.2 3 282.0 65,729.3 102	28.059.8 31 76,975.7 76 3.163.9 3 282.0 02.153.6 103	31,654.8 35 76,975.7 76 3,538.7 3 282.0 .05,373.8 108	35,639.2 76,975.7 3,913.4 282.0 08,983.5
Loan Balance Grani from GSL Reserved Fund Total Liab. & Capital	322.4 8,661.2 815.9 9,799.5	322.4 790.6 (661.2 13.162.7 815.9 1,063.0 7799.5 15.016.4	758.7 13,162.7 1,361.0 15,282.3	704.0 13.162.7 1,717.7 15,584.4	649.3 13,162.7 2,139.7 15,951.7	594.6 13,162.7 2,634.2 16,391.5	1,346.1 20,418.6 3,087.8 24,852.4	1,291.4 20,418.6 3,631.1 25,341.1	1,201.3 20,418.6 4,277.8 25,897.7	1,117.8 20,418.6 5,038.6 26,575.0	1,049.6 20,418.5 2 5,924.7 27,392.9 2	981.5 20,418.6 20 6,950.2 8 28,350.3 20	913.3 20,418.6 20 8,131.2 9 29,463.0 30	845.2 20,418.6 20 9,485.3 13 30,749.0 33	777.0 20,418.6 20,11,032.4 15 32,228.0 3:	717.7 2 20,418.6 39 12,794.0 14 33,930.2 56	2,747.6 2 39,222.5 39 14,480.0 16 56,450.2 58	2,688.2 2 39,222.5 39 16,433.2 18, 58,343.9 60	2,533,9 2 39,222,5 39 18,694,0 21 60,450,4 62	2,379.5 2 39,222.5 39 21,297.2 24,62,899.2 65	2,225.2 39,222.5 24,281.6 27,29.3 103	5,438.5 69,531.9 66 27,183.1 30 102,153.6 103	5,284.2 4 69,531.9 66 30,557.7 34 105,373.8 104	4,976.8 69,531.9 34,474.8 108,983.5

Calculation of FIRR Kandy Sewerage Project (M/P) Case B-2

(1998 Price)

Don cum/ 2000 2001 2002 2003 2004 4 2005 8		on-Dom cum/d	Ta Dom Rs./cum	riff Non-Dom Rs./cum	Revenue Total	Investment	10% of Inv.	O&M	ОН	Net Inflow	FIRR
cum/ 2000 2001 2002 2003 2004 4 2005					Total				1		
2000 2001 2002 2003 2004 4 2005 8	/d	cum/d	Rs./cum	Rs /cum						348	<u></u>
2001 2002 2003 2004 4 2005 8				1400,000111	M Rs./Y	M Rs	M Rs	M Rs	M Rs	M Rs	
2002 2003 2004 2005 8											
2003 2004 4 2005 8						147.0	14.7			(14.7)	
2004 4 2005 8						552.0	55.2			(55.2)	<u> </u>
2005 8	- 1					986.0	98.6			(98.6)	
	404	1,102	2.0	10.0	4.3		0.0	6.65	0.43	(2.8)	
2006 1.2	829	2,259	2.0	10.1	8.9		0.0	8.81	0.89	(0.8)	
	273	3,469	2.0	10.2	13.9		0.0	10.98	1.39	1.5	
2007 1,7	737	4,736	2.1	10.3	19.1		0.0	13.14	1.91	4.1	
	779	4,850	2.1	10.4	19.8		0.0	13.14	1.98	4.7	
	822	4,966	2.1	10.5	20.4		0.0	13.14	2.04	5.3	
	866	5,086	2.1	10.6	21.2		0.0	13,14	2.12	5.9	
	907	5,198	2.1	10.7	21.8	83.0	8.3	13.14	2.18	(1.8)	<u> </u>
	949	5,312	2.2	10.8	22.5	377.0	37.7	13.14	2.25	(30.6)	<u> </u>
	991	5,429	2.2	10.9	23.3	810.0	81.0	13.14	2.33	(73.2)	
	941	6,204	2.2	11.0	27.4		0.0	19.68	2.74	5.0	
	828	6,770	2.2	11.2	30.7		0.0	21.80	3.07	5.8	[
	679	7,326	2.3	11.3	34.0		0.0	23.91	3.40	6.7	
	549	7,871	2.3	11.4	37.3		0.0	26.03	3.73	7.5	[
	660	8,028	2.3	11.5	38.4	286.9	28.7	26.03	3.84	(20.1)	
	774	8,189	2.3	11.6	39.6	<u> </u>	0.0	26.03	3.96	9.6	
	889	8,352	2.3	11.7	40.8		0.0	26.03	4.08	10.7	1
	,007	8,619	2.4	11.8	42.5		0.0	26.03	4.25	12.2	
	127	8,690	2.4	12.0	43.3		0.0	26.03	4,33	12.9	
	250	8,864	2.4	12.1	44.6		0.0	26.03	4.46	14.1	1
	375	9,041	2.4	12.2	45.9		0.0	26.03	4.59	15.3	
	,401	9,078	2.5	12.3	46.6	<u> </u>	0.0	26.03	4.66	15.9	T
	,401	9,078	2.5	12.4	47.1		0.0	26.03	. 4.71	16.3	
	,401	9,078	2.5	12.6	47.5		0.0	26.03	4.75	16.7	f
	401	9,078	2.5	12.7	48.0	286.6	28.7	26.03	4.80	(11.5)	1
	,401	9,078	2.6		48.5	200.0	0.0	26.03	4.85	17.6	
	,401	9,078	2.6	13.0	49.0	<u> </u>	0.0	26.03	4.90	18.0	
	,401	9,078	2.6	13.1	49.5		0.0	26.03	4.95	18.5	
·	401	9,078	2.6	13.2	50.0	 	0.0	26.03	5.00	18,9	
	,401	9,078	2.7	13.3		286.9	28.7	26.03	5.05	(9.3)	1
	,401	9,078	2.7	13.5	51.0		0.0	26.03	5.10	19.8	1
	,401	9,078	2.7				0.0	26.03	5.15	20.3	 -
		9,078	2.7				0.0	26.03	5.20	20.8	
	,401 ,401	9,078	2.8				0.0	26.03	5.25	21.2	1
	,401	9,078	2.8				0.0	26.03	5.30	21.7	†
		9,078	2.8				0.0	26.03	5.36	22.2	
	,401	9,078	2.8				0.0	26.03	5.41	22.7	†
	5,401 5,401	9,078	2.9				0.0	26.03	5.46		1-
							0.0	26.03	5.52		
	6,401	9,078	2.9				28.7	26.03	5.57	(4.5	_
	5,401	9,078	2.9				0.0	26.03	5.63		
	5,401	9,078	3.0			·	0.0	26.03	5.69		
	5,401	9,078					0.0	26.03	5.74		
	5,401	9,078					0.0	26.03	5.80		
	5,401	9,078						26.03	5.86		
	5,401	9,078					28.7		5.92		
	5,401	9,078					0.0	26.03			
	6,401	9,078					(40.6)	26.03	5.98	68.3	2.

- 1. 1% annual tariff increase in real terms.
 2. Unit tariff of Non Domestic User is 5 times of Domestic User.
 3. 90 % subsidy for capital investment.
- 4. Overhead is assumed to be 10% of Revenue.
- 5. Investment Cost in 2050 is assumed salvege value.

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	Pro J Kanc	forma ly Sev	Pro Forma Financial Statemel Kandy Sewerage Project (F/S)	rcial Proj	Staten ect (E)	vents (S)	Pro Forma Financial Statements (MRs.) Kandy Sewerage Project (F/S)	(š.	∵ ≈	Case E	tariff	90 % (increa	Grant ise in	Case B-1 100 % Grant is assumed 1.0 % tariff increase in real term is assumed	rmed rrm is 8	unssum	ę										
Year	2000	2001	2062 2	2003	2004	2005	2006	2007	2003	2009	2010	2011	2102	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Fund Flow Table Annual Sales Subsidy from GSL Loan (10% Interest)	0.0	0.0 195.7 0.0	0.0 808.2 0.0	0.0 1,588.0 0.0	4.8 0.0 0.0	10.9 0.0 0.0	18.6 0.0 0.0	28.3 0.0 0.0	32.2 0.0 0.0	36.6	41.6	47.3 0.0 0.0	53.7 0.0 0.0	60.9 0.0 0.0	0.0	75.1 0.0 0.0	83.5 0.0 0.0	92.7 0.0 0.0	103.0 930.8 0.0	114.4 0.0 0.0	0.0 0.0	141.3 0.0 0.0	156.9 0.0 0.0	0.0	0.0 0.0 0.0	215.2 0.0 0.0	
Capital Investment Interest Payment (10%). Annual Loan Repayment O & M Overhead (10 % of Sales)	0.000	195.7 0.0 0.0 0.0	808 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 11.8 0.5	0.0 0.0 17.2 11.1	0.0 0.0 23.5 1.9	0.0 0.0 31.0 2.8	0.0 0.0 34.1 3.2	0.0 0.0 0.0 37.5	0.00	0.0 0.0 45.4 4.7	0.0 0.0 49.9 4.8	0.0 0.0 0.0 54.9 6.1	0.0 0.0 4.0 8.9	0.0 0.0 6.4 7.5	0.0 0.0 0.0 73.1 8.8	0.0 0.0 4.0 6.4	1,930.8 0.0 0.0 88.4 10.3	0.0 0.0 97.2 11.4	0.0 0.0 0.0 107.0	0.0 0.0 0.0 117.7 14.1	0.0 0.0 0.0 129.4 15.7	0.0 0.0 0.0 142.4 17.4	0.0 0.0 0.0 156.6 19.4	0.0 0.0 1723 21.5	
Net Cash Inflow	0.0	0.0	0.0	0.0	(7.5)	(7.3)	(6.7)	(5.5)	(5.1)	(4.5)	(3.8)	(5.8)	(0.1)	(0.1)	5.0	1.2	2.1	3.1	43	5.8	7.5	9.5	11.8	14.6	17.8	21.4	
Working Capital Burden Cumulative cash deficit 10% interst on above Cum, interst Payment		0.0	0.00	000	(7.9) (7.9) (7.9)	(14.8) (1.5) (2.2)	(21.5) (2.2) (4.4)	(27.1) (2.1) (2.1)	(322) (3.2) (10.3)	(36.7) (3.7) (14.0)	(40.5) (4.0) (18.0)	(43.3) (4.3) (22.4)	(44.9) (4.5) (26.8)	(45.0) (4.5) (31.3)	(45) (45) (35.8)	(43.3) (4.3) (40.1)	(41.2) (4.1) (44.2)	(38.2) (3.8) (48.1)	(33.8) (3.4) (51.4)	(28.1) (2.8) (54.3)	(20.6) (2.1) (56.3)	(11.1) (1.1) (57.4)	0.7 0.1 (57.3)	15.3 1.5 (55.8)	33.1 3.5 (52.5)	545 5.5 (47.1)	
Income Statement Annual Sales	0.0	0.0	0.0	0.0	8,	10.9	18.6	28.3	32.2	36.6	41.6	47.3	53.7	600	9.79	75.1	83.5	92.7	103.0	114.4	127.2	141.3	156.9	174.4	193.7	215.2	
O & M Overhead (10 % of Sales) Annual Depreciation Interest Payment (10%)	0.00	0.0	0000	0000	11.8 0.5 0.0	17.2 1.1 0.0 0.0	23.5 11.9 0.0 0.0	31.0 2.8 0.0	32 32 00 00	37.5 3.7 0.0	14 24 00 00	45.4 4.7 0.0 0.0	8, 8, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,	54.9 6.1 0.0 0.0	8 0 0 0 4 8 0 0	4.88 7.5 0.0 0.0	73.1 8.3 0.0 0.0	80.4 0.0 0.0	88.4 10.3 0.0	97.2 11.4 0.0 0.0	107.0 12.7 0.0 0.0	117.7 14.1 0.0	129.4 15.7 0.0 0.0	142.4 17.4 0.0 0.0	156.6 19.4 0.0 0.0	21.5 0.0 0.0	
Net Income	0.0	0.0	0.0	0.0	(7.5)	(7.3)	(6.7)	(5.5)	(5.1)	(4.5)	(3.8)	(2.8)	(1.6)	(0.1)	5.0	71	27	3.1	4. 6.	5.8	7.5	5,6	11.8	14.6	17.8	21.4	
Balance Sheet Cash Capital Investment Less Accum. Depreciation Land Total Assets	•	0.0 195.7 1 0.0 0.0 195.7 1	0.0 1,003.8 2, 0.0 0.0 1,003.8 2,	0.0 2.495.2 2 0.0 96.6 2.591.8 2	(7.5) 2,495.2 2 0.0 96.6 2,584.3 2	(14.8) 2,495.2 0.0 96.6 2,577.0	(21.5) 2,495.2 0.0 96.6 2,570.3	(27.1) 2,495.2 0.0 96.6 2,564.7	(32.2) 2,495.2 ; 0.0 96.6 2,559.6 ;	(36.7) 2,495.2 : 0.0 96.6 2,555.1 :	(40.5) 2,495.2 0.0 96.6 2,551.3	(43.3) 2,495.2 0.0 96.6 2,548.5	(44.9) 2,495.2 0.0 96.6 2,546.9	(45.0) 2,495.2 0.0 96.6 2,546.8	(44.5) 2,495.2 0.0 96.6 2,547.3	(43.3) 2,495.2 0.0 96.5 2,548.5	(41.2) 2,495.2 0.0 96.6 2,550.6	(38.2) 2,495.2 0.0 96.6 2,553.6	(33.8) 4,426.0 4 0.0 96.6 4,488.8 4	(28.1) 4,426.0 4 0.0 96.6 4,494.5 4	(20.6) 4,426.0 4 0.0 96.6 4,502.0 4	(11.1) 4,426.0 4 0.0 96.6 4,511.5 4	0.7 4,426.0 4 0.0 96.6 4,523.3 4	15.3 4,426.0 4 0.0 96.6 4,537.9 4	33.1 (426.0 4 0.0 96.6 (555.7 4	54.5 4.426.0 0.0 96.6 4.577.1	80.2 4.426.0 0.0 96.6 4,602.8
Loan Balance Grant from GSL Reserved Fund Total Liab. & Capital		0.0 195.7 1 0.0 1	0.0 1,003.8 2 0.0 1,003.8 2	0.0 2,591.8 2 0.0 2,591.8 2	0.0 2,591.8 2 (7.5) 2,584.3 2	0.0 2,591.8 2 (14.8) 2,577.0 2	0.0 2,591.8 (21.5) 2,570.3 (0.0 2,591.8 (27.1) 2,564.7	0.0 2,591.8 (32.2) 2,559.6	0.0 2,591.8 (36.7) 2,555.1	0.0 2,591.8 (40.5) 2,551.3	0.0 2,591.8 (43.3) 2,548.5	0.0 2,591.8 (44.9) 2,546.9	0.0 2,591.8 (45.0) 2,546.8	0.0 2.591.8 (44.5) 2.547.3	0.0 2,591.8 (43.3) 2,548.5	0.0 2,591.8 (41.2) 2,550.6	0.0 2,591.8 4 (38.2) 2,553.6 4	0.0 4,522.6 4 (33.8) 4,488.8 4	0.0 4,522.6 4 (28.1) 4,494.5 4	0.0 4,522.6 4 (20.6) 4,502.0 4	0.0 4,522.6 4 (11.1) 4,511.5 4	0.0 4,522.6 0.7 4,523.3	0.0 4.522.6 4 15.3 15.3 4,537.9 4	0.0 4,522.6 33.1 4,555.7	0.0 4.522.6 54.5 4.577.1	0.0 4,522.6 80.2 4,602.8

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	Pro F	orma 3 y Sewe	Pro Forma Financial Statements (M Rs.) Kandy Sewerage Project (F/S)	ial Str Project	atemen t (F/S)	nts ()	И Rs.)		•	Case B-1 1.0 % tari	tariff	Case B-1 100 % Grant is assumed 1.0 % tariff increase in real term is assumed	rant is in res	assum al term	ed ı is assı	umed								
Year	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Fund Flow Table Amnual Sales Subsidy from GSL Loan (10% Interest)	265.7 0.0 0.0	295.1 0.0 0.0	327.9 0.0 0.0	364.3 0.0 0.0	404.7 0.0 0.0	449.7 0.0 0.0	499.6 8,065.4 0.0	555.0 0.0 0.0	616.6 0.0 0.0	685.1 0.0 0.0	761.1 0.0 0.0	845.6 0.0 0.0	939.5 0.0 0.0	1,043.8	1,159.6 0.0 0.0	1,288.3 0.0 0.0	1,431.3 0.0 0.0	1,590.2 0.0 0.0	1,766.7 0.0 0.0	1,962.8 0.0 0.0	2,180.7	2,422.8 33,691.2 0.0	2,691.7 0.0 0.0	2,990.5 0.0 0.0
Captiai Investment Interest Payment (10%) Annual Loan Repayment O & M Overhead (10% of Sales)	0.0 0.0 0.0 208.4 26.6	0.0 0.0 229.3 29.5	0.0 0.0 252.2 32.8	0.0 0.0 277.4 36.4	0.0 0.0 305.2 40.5	0.0 0.0 0.0 335.7 45.0	8,065.4 0.0 0.0 369.2 50.0	0.0 0.0 0.0 406.2 55.5	0.0 0.0 446.8 61.7	0.0 0.0 491.5 68.5	0.0 0.0 540.6 76.1	0.0 0.0 0.0 594.7 84.6	0.0 0.0 0.0 654.1 93.9	0.0 0.0 0.0 719.5	0.0 0.0 0.0 791.5	0.0 0.0 0.0 870.6 128.8	0.0 0.0 0.0 957.7	0.0 0.0 0.0 1.053.5 159.0	0.0 0.0 0.0 1.158.8 176.7	0.0 0.0 0.0 1,274.7 196.3	0.0 0.0 0.0 1,402.2 218.1	33,691.2 0.0 0.0 1,542.4 242.3	0.0 0.0 0.0 1.696.6 269.2	0.0 0.0 0.0 1,866.3 299.0
Net Cash Inflow	30.7	36.4	42.9	50.5	59.1	0.69	80,4	93,4	108.2	125.1	144.4	166.4	191.4	219.8	222.2	288.9	330.5	377.7	431.2	491.8	560.5	638.1	725.9	825.1
Working Capital Burden Cumulative cash deficit 10% interst on above Cum. Interst Payment	110.9 11.1 (27.9)	147.3 14.7 (13.2)	190.2 19.0 5.8	240.6 24.1 29.9	299.7 30.0 59.8	368.8 36.9 96.7	449.2 44.9 141.6	542.5 54.3 195.9	650.7 65.1 261.0	775.8 77.6 338.5	920.3 92.0 430.6	1,086.6 108.7 539.2	1,278.0 127.8 667.0	1,497.9 149.8 816.8	1,750.0 175.0 991.8	2,038.9 203.9 1,195.7	2,369.4 236.9 1,432.7	2,747.1 274.7 1,707.4	3,178.4 317.8 2,025.2	3,670.2 367.0 2,392.2	4,230.7 423.1 2,815.3	4,868.8 486.9 3,302.2	5,594.6 559.5 3,861.6	6,419.8 642.0 4,503.6
Income Statement Annual Sales	265.7	295.1	327.9	364.3	404.7	449.7	499.6	555.0	616.6	685.1	761.1	845.6	939.5	1,043.8	1,159.6	1,288.3	1,431.3	1,590.2	1,766.7	1,962.8	2,180.7	2,422.8	2,691.7	2,990.5
O & M Overhead (10 % of Sales) Annual Depreciation Interest Payment (10%)	208.4 26.6 0.0	229.3 29.5 0.0 0.0	242.2 32.8 0.0 0.0	277.4 36.4 0.0 0.0	305.2 40.5 0.0	335.7 45.0 0.0 0.0	369.2 50.0 0.0	406.2 55.5 0.0 0.0	446.8 61.7 0.0 0.0	491.5 68.5 0.0 0.0	540.6 76.1 0.0	594.7 84.6 0.0	654.1 93.9 0.0 0.0	719.5 104.4 0.0 0.0	791.5 116.0 0.0	870.6 128.8 0.0 0.0	957.7 143.1 0.0 0.0	1,053.5 159.0 0.0 0.0	1,158.8 176.7 0.0 0.0	1,274.7 196.3 0.0 0.0	1,402.2 218.1 0.0 0.0	1,542.4 242.3 0.0 0.0	1,696.6 259.2 0.0 0.0	1,866.3 299.0 0.0 0.0
Net Income	30.7	36.4	42.9	50.5	59.1	0.69	4.08	93.4	108.2	125.1	14.4	166.4	191.4	219.8	252.2	288.9	330.5	377.7	431.2	491.8	560.5	638.1	725.9	825.1
Rainnee Sheet Can Capital Investment Lass Accum Depreciation Land Total Assets	110.9 4,426.0 0.0 96.6 4,633.5	147.3 4,426.0 0.0 96.6 4,669.9	190.2 4,426.0 0.0 96.6 4,712.8	240.6 4,426.0 0.0 96.6 4,763.2	299.7 4,426.0 4 0.0 96.6 4,822.3 4	368.8 4,426.0 1 0.0 96.6 4,891.4 1	449.2 12,491.4 1 0.0 96.6 13,037.1	542.5 12,491.4 0.0 96.6 13,130.5	650.7 12,491.4 0.0 96.6 13,238.7	775.8 12,491.4 0.0 96.6 13,363.8	920.3 12,491.4 0.0 96.6 13,508.2	1,086.6 12,491.4 0.0 96.6 13,674.6	1,278.0 12,491.4 0.0 96.6 13,866.0	1,497.9 12,491.4 0.0 96.6 14,085.9	1,750.0 12,491.4 0.0 96.6 14,338.0	2,038.9 12,491.4 0.0 96.6 14,626.9	2,369.4 12,491.4 0.0 96.6 14,957.4	2,747.1 12,491.4 0.0 96.6 15,335.1	3,178.4 12,491.4 0.0 96.6 15,766.3	3,670.2 12,491.4 0.0 96.6 16,258.2	4,230.7 12,491.4 0.0 96.6 16,818.7	4,868.8 46,182.5 0.0 96.6 51,147.9	5,594.6 46,182.5 4 0.0 96.6 51,873.8 5	6,419.8 46,182.5 0.0 96.5 52,698.9
Loan Balance Grant from GSL Reserved Fund Total Liab, & Capital	0.0 0.0 4,522.6 4,522.6 110.9 147.3 4,633.5 4,669.9	0.0 4,522.6 147.3 4,669.9	0.0 4,522.6 190.2 4,712.8	0.0 0.0 4,522.6 4,522.6 240.6 299.7 4,763.2 4,822.3		0.0 4,522.6 1 368.8 4,891.4 1	0.0 12,588.0 449.2 13,037.1	0.0 12,588.0 542.5 13,130.5	0.0 12,588.0 650.7 13,238.7	0.0 12,588.0 775.8 13,363.8	0.0 12,588.0 920.3 13,508.2	0.0 12,588.0 1,086.6 13,674.6	0.0 12,588.0 1,278.0 13,866.0	0.0 12,588.0 1,497.9 14,085.9	0.0 12,588.0 1,750.0 14,338.0	0.0 12,588.0 2,038.9 14,626.9	0.0 12.588.0 2,369.4 14,957.4	0.0 12,588.0 2,747.1 15,335.1	0.0 12,588.0 3,178.4 15,766.3	0.0 12,588.0 3,670.2 16,258.2	0.0 12,588.0 4,230.7 16,818.7	0.0 46.279.2 4,868.8 51,147.9	0.0 46,279.2 4 5,594.6 51,873.8 5	0.0 46,279.2 6,419.8 52,698.9

Calculation of FIRR Kandy Sewerage Project (F/S) Case B-1

(1998 price)

		ume	Tai	: <i>EE</i>	Davanua	Investment	O&M	ОН	Net Inflow	FIRR
Year	Dom	Non-Dom	Dom	Non-Dom	Total	mveament	OWIN		1101 11110	
	cum/d	cum/d	Rs./cum	Rs./cum	M Rs./Y	M Rs.	M Rs.	M Rs.	M Rs.	
2000	Cultifu	Cumo	Kancum	103,700111	172 2451/ 2					
2000						147.0			0.00	
2001						552.0			0.00	
2002						986.0			0.00	<u> </u>
2003	404	1102	2.0	6.0	2.7	200.0	6.65	0.27	(4.21)	
2004	404 829	2259	2.0	6.1	5.6		8.81	0.56	(3.76)	
2005	1273	3469	2.0	6.1	8.7		10.98	0.87	(3.15)	
2006	1737	4736	2.1	6.2	12.0		13.14	1.20	(2.35)	
2007		4850	2.1	6.2	12.4	 	13.14	1.24	(1.98)	
2008	1779 1822	4966	2.1	6.3	12.8		13.14	1.28	(1.59)	
2009		5086	2.1	6.4	13.3		13.14	1.33	(1.20)	
2010	1866		2.1	6.4	13.7	ļ	13.14	1.37	(0.81)	
2011	1907		2.1	6.5	14.1	ļ	13.14	1.41	(0.41)	
2012	1949		2.2	6.6	14.6		13.14	1.46	(0.03)	
2013	1988				14.7		13.14	1.47	0.10	
2014	1988		2.2	6.6	14.7	 	13.14	1.49	0.10	
2015	1988		2.2	6.7	15.0	<u> </u>	13.14	1.50	0.24	
2016	1988		2.3			ļ	13.14	1.52	0.57	ļ
2017	1988		2.3	6.8	15.2	287.0	13.14	1.53	0.64	
2018	1988		2.3	6.9	15.3 15.5	207.0	13.14	1.55	0.78	
2019	1988		2.3	7.0		 	13.14	1.56	0.70	╁┈┈┈
2020	1988		2.3	7.0	15.6	 -	13.14	1.58	1.06	
2021	1988		2.4	7.1	15.8	 	13.14	1.59	1.00	
2022	1988		2.4	7.2	15.9	 	13.14	1.61	1.34	
2023	1988		2.4	7.2	16.1	 	13.14	1.63	1.49	┼
2024	1988			7.3	<u> </u>	ļ	13.14	1.64	1.64	╆
2025	1988		2.5	7.4				1.66	1.78	
2026	1988		2.5	7.5		ļ <u> </u>	13.14 13.14	1.67	1.78	
2027	1988			7.5		 	13.14	1.69	2.08	-
2028	1988		2.5	7.6		ļ		1.71	2.24	
2029	1988					ļ	13.14 13.14	1.73	2.39	
2030	1988						13.14	1.74	2.55	
2031	1988			7.8			13.14	1.74	2.70	+
2032	1988						13.14	1.78	2.86	
2033	1988						13.14	1.80	3.02	
2034	1988							1.81	3.18	
2035	1988						13.14	1.83	3.35	
2036	1988						13.14 13.14	1.85	3.51	
2037	1988						13.14	1.87	3.68	+
2038	1988	1					13.14	1.89	3.84	
2039	1988						13.14			
2040	1988							1.91	4.01	
2041	1988						13.14 13.14			
2042	1988						13.14			
2043	1988					_				
2044	1988						13.14			
2045	198						13.14			
2046	198						13.14			
2047	198					_1	13.14			
2048	198	-								
2049	198						13.14			
2050	198	8 5420) 3.2	9.5	21.1	(253.0) 13.14	2.11	1 3.81	J./07

Note:

- 1: 1 % annual tariff increase in real terms.
- 2. Unit tariff of Non Domestic User is 3 times of Domestic User.
- 3. 100 % subsidy for capital investment.4. Overhead is assumed to be 10% of Revenue.
- 5. Investment Cost in 2050 is assumed salvege value.

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	Pro J Kang	Form: ly Sev	a Fina werag	Pro Forma Financial Statemer Kandy Sewerage Project (F/S)	State: ject (I	ments ?/S)	Pro Forma Financial Statements (MRs.) Kandy Sewerage Project (F/S)	Rs.)	∪	ase B .0 % 1	-2 90 tariff	Case B-2 90 % subsidy 1.0 % tariff increase in real terms	sidy se in r	eal te	rms												
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2005	2010	2011 2	2013 2	2013 2	2014 2	2015 24	2016 20	2017 20	2018 2019	9 2020	0 2021	2022	2023	2024	2025	2026	
Fund Flow Table Annual Sales Subsidy from GSL	000	0.0	0.0 727.4 1 80.8	0.0	7.6 0.0 0.0	17.4	0.0	45.1 0.0 0.0	513 0.0	58.0 0.0 0.0	66.4 0.0 0.0	75.4 0.0 0.0	85.6 0.0 0.0	97.0 0.0 0.0	0.0 0.0	0.0	133.0 14 0.0 0.0	147.8 16 0.0 1,73 0.0 15	1642 187 1,737.7 (0.0	262.7 225.2 0.0 0.0 0.0 0.0	250.2 0.0 0.0 0.0	277.9 0.0 0.0	308.8 0.0 0.0	343.1	381.2	
Capital Investment interest Payment (10%) Annual Loan Repayment O & M		2.0 2.0 0.0 0.0		1,588.0 25.8 0.9 0.0	0.0 25.4 4.6 11.8	0.0 24.2 11.8 17.2	0.0 23.0 8.11.8 2.55	0.0 21.18 31.0 4.5	0.0 20.7 11.8 34.1	0.0 19.5 11.8 37.5 8.8	0.0 18.3 11.8 41.2 6.6	0.0 17.1 11.8 45.4	0.0 15.9 11.8 49.9 8.6	0.0 14.8 11.8 54.9 7.9	0.0 13.6 11.8 60.4	0.0 12.4 11.8 66.4 12.0	0.0 11.2 11.8 13.3	0.0 1,93 10.1 2 11.8 2 80.4 8	28.2 2 11.8 1 88.4 99	0.0 27.0 11.8 2 97.2 18.2 2	0.0 0.0 25.0 22.9 20.6 20.6 107.0 117.7 20.3 22.5	20 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 8 16.7 6 20.5 4 156.6 8 30.9	0.0 14.8 19.7 17.1 24.3 34.3	13.2 15.0 1 189.5 3 38.1	
Overhead (10 % of Sales) Net Cash Inflow	0.0	(2.0)	(10.0)	(26.7)	(34.1)	(55.7)	(28.6)	(2.61)	(15.2)	(10.4)	(4.9)	11	8.0	15.6	22.0	29.1	37.0 .	45.6	35.8 44	46.4 5	50.2 64.1	.1 79.4	4.	2 114.9	136.4	162.5	
Workin Capital Burden Cumulative cash deficit 10% interst on above Cum. Interst Payment		0700	(12.0) (1.2) 1.0	(38.7) (3.9) 2.9	(72.8) (7.3) (4.4)	(108.5) (10.9) (15.3)	(137.1) (13.7) (29.0)	(156.6) (15.7) (44.6)	(2,171) (17.2) (6,18)	(1823) (1822) (80.0)	(187.2) ((18.7) (98.8) ((186.1) ((18.6) (117.4) ((178.1) (17.8) (135.2)	(162.6) (1 (16.3) (151.4) ((140.5) ((14.1) (165.5) ((211.4) (21.1) (276.6) (1	(74.4) (7.49) (7.49) (1.84.1) (1.84.1)	(28.8) (2.9) (187.0) (14	7.0 S. 0.7 (186.3) (18	53.4 10 5.3 1 (180.9) (17	103.6 167.7 10.4 16.8 (170.6) (153.8)	.7 247.1 .8 24.7 .8) (129.1)	1 343.3 7 34.3 1) (94.7)	3 458.2 3 45.8 7) (48.9)	2 594.6 3 59.5 9) 10.5	5 757.2 5 75.7 5 86.3	
Income Statement	0:0	0:0	0.0	0.0	7.6	17.4	29.7	45.1	51.3	583	66.4	75.4	. 9'5'8	97.0	107.8	119.7	133.0 1	147.8 1	164.2 18	182.4 20	202.7 225.2	.2 250.2	277.5	9.308.8			6)
O& M Overhead (10 % of Sales) Annual Depreciation	0 00	0000	0.0	0.00 % % 0.00 % %	0.8 7.0 7.0	17.2 1.7 7.0 24.2	23.5 3.0 7.0 23.0	31.0 4.5 7.0 21.8	34.1 5.1 7.0 20.7	37.5 8.2 7.0 7.0	41.2 6.6 7.0 18.3	45.4 7.5 7.0 17.1	49.9 8.6 7.0 15.9	54.9 9.7 7.0 14.8	60.4 10.8 7.0 13.6	66.4 12.0 7.0 12.4	73.1 13.3 7.0 11.2	80.4 14.8 7.0 10.1	88.4 9 16.4 1 16.8 1 28.2 2	97.2 10 18.2 2 16.8 1 27.0 2	107.0 20.3 20.3 16.8 19.2 25.0	22. 22. 22. 24. 16.8 16.8 16.8 16.8 16.8 16.8 16.8 16.	129.4 142.4 25.0 27.8 16.8 16.8 20.8 18.8	30.9 30.9 30.9 38 16.8 38 16.7	6 172.3 9 34.3 8 16.8 7 14.8	3 189.5 3 38.1 8 16.8 8 13.2	IO 00 61
meres raymen (10.%) Net income	0.0	(6.1)	(11.8)	(622)	(37.3)		(26.8)	(19.3)	(15.6)	(11.5)	(6.8)	(1.7)	4.1	10.6	16.0	21.9	28.4	35.6	14.4 2	25.1 3	33.7 4:	45.3 58	58.1 72.2	2 87.8	8 104.9	9 123.6	
Balmot Sheet Cash Capital Investment Less Accum. Depreciation Land		(2.0) 195.7 0.0 0.0 7.59	(12.0) 1,003.8 1.7 0.0	(38.7) 2,495.2 8.7 8.7 96.6	(72.8) 2,495.2 15.8 96.6 2,503.2	(108.5) 2,495.2 22.8 96.6 2,460.5	• • • • • • • • • • • • • • • • • • • •	(137.1) (156.6) 2,495.2 2,495.2 2 29.9 36.9 96.6 96.6 2,424.8 2,398.3 3	(171.9) 2,495.2 44.0 96.6 2,376.0	(1823) 2,495.2 51.0 96.6 2,358.5 2	(1872) 2,495.2 2 58.1 96.6 2,346.5 2	(186.1) (2,495.2 2 65.1 96.6 2,340.6 2	(178.1) (2,495.2 2 72.1 96.6 2,341.5 2	(162-6) (2,495.2 2, 79.2 96.6 2,350.0 2,	(140.5) (2,495.2 2, 86.2 96.6 2,365.0 2	(111.4) 2,495.2 2, 93.3 96.6 2,387.1 2,	(74.4) (2.495.2 2.4 100.3 1 96.6 2,417.1 2.4	(28.8) 2,495.2 4,4 107.4 1 96.6 2,455.6 4,4	7.0 8 4,426.0 4,42 124.2 14 96.6 5	53.4 10 (426.0 4.44) 141.0 11 96.6 9	103.6 167.7 4,426.0 4,426.0 157.9 174.7 96.6 96.6 4,468.4 4,515.6	167.7 247.1 1,426.0 4,426.0 174.7 191.5 96.6 96.6 1,515.6 4,578.1	7.1 343.3 5.0 4,426.0 1.5 208.4 5.6 96.6 3.1 4,657.6	4582 0 4,4260 (4 2252 (6 96.6 16 4,755.6	2 594.6 D 4,426.0 2 242.0 5 96.6 6 4,875.2	6 757.2 0 4,426.0 0 258.9 6 96.6 2 5,020.9	40000
Loan Balance Grant from GSL Reserved Fund. Total Liab, & Capital		19.6 176.1 (1.9) 193.7		258.3 2332.6 (46.6) 2,544.3	253.7 2,332.6 (83.1) 2,503.2	241.9 2,332.6 (114.1) 2,460.5	230.2 2,332.6 (138.0) 2,424.8	218.4 2,332.6 (152.8) 2,398.3	206.6 2,332.6 (163.3) 2,376.0	194.8 2,332.6 (168.9) 2,358.5	183.0 2,332.6 2 (169.1) 2,346.5 2	171.3 2,332.6 (163.3) 2,340.6 2	159.5 2,332.6 (150.6) 2,341.5	147.7 2,332.6 (130.3) (2,350.0 2	135.9 2,332.6 2 (103.5) 2,365.0 2	124.1 2,332.6 2, (69.6) 2,387.1 2,	112.4 1 2,332.6 22 (27.9) 2,417.1 2,4	100.6 2 2,532.6 4,0 22.4 2,455.6 4,4	281.9 2 4,070.3 4,07 53.2 9 4,405.4 4,45	270.1 2 4.070.3 4.0 94.6 12 4,435.0 4,4	249.5 229.0 4,070.3 4,070.3 148.5 216.3 4,468.4 4,515.6	9.0 208.4 0.3 4,070.3 6.3 299.4 5.6 4,578.1	8.4 187.9 0.3 4,070.3 0.4 399.4 8.1 4,657.6	19 167.3 13 4,070.3 14 518.0 1.6 4,755.6	3 4,0703 0 657.2 6 4,875.2	4,070.3 2 4,070.3 2 818.9 2 5,020.9	W M A B
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	Pro Fo Kandy	rma F.	Pro Forma Financial Statements (MRs.) Kandy Sewerage Project (F/S)	al State oject (ments F/S)	i (M1	Rs.)		-	Case B-2 90 % subsidy 1.0 % tariff increase in real terms	2 90 % ariff in	subsi crease	in rea	l terms										
Year	2027	2028	2029	2030	2031	2033	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Fund Flow Table Annual Sales Subsidy from GSL Loan (10% Interest)	0.0	470.5 0.0 0.0	522.7 0.0 0.0	580.7 0.0 0.0	645.2 0.0 0.0	716.8 0.0 0.0	796.3 7,258.9 806.5	884.7 0.0 0.0	982.9 0.0 0.0	1,092.1 0.0 0.0	0.0	0.0	1,497.6 0.0 0.0	0.0	0.0 0.0	2,053.7 2 0.0 0.0	2,281.6 2	2,534.9 2 0.0 0.0	2,816.2 0.0 0.0	3,128.8 3 0.0 0.0	3,476.1 0.0 30 0.0 3	3,862.0 4 30,322.1 3,369.1	4,290.7 0.0 0.0	4,766.9 0.0 0.0
Capital Investment Interest Payment (10%) Annual Loan Repayment O& M Overhead (10 % of Sales)	0.0 12.3 8.8 208.4 42.3	0.0 11.4 8.8 229.3 47.0	0.0 10.5 8.8 52.2 52.3	0.0 9.7 8.8 277.4 58.1	0.0 8.8 8.8 305.2 64.5	0.0 7.9 8.8 335.7 71.7	8,065.4 87.7 8.8 369.2 79.6	86.8 8.8 8.8 8.8 8.8 8.8 8.8	0.0 82.3 45.4 446.8 58.3	0.0 77.7 45.4 491.5 109.2	0.0 73.2 45.4 540.6 121.3	0.0 68.6 45.4 594.7 134.8	0.0 64.1 45.4 654.1 149.8	0.0 59.5 45.4 719.5 166.4	0.0 55.0 45.4 791.5 184.8	0.0 51.3 36.7 870.6 205.4	0.0 47.7 36.7 957.7 1 228.2	0.0 44.0 36.7 (,053.5 1	0.0 40.3 36.7 1,158.8 1	0.0 36.7 36.7 1.274.7 312.9	33.0 33.0 36.7 1,402.2 347.6	33,691.2 366.2 36.7 1,542.4 386.2	0.0 362.6 36.7 ,696.6 429.1	0.0 343.6 189.8 1,866.3 476.7
Net Cash Inflow	194.0	221.0	251.2	284.9	322.5	364.4	330.7	383.0	408.5	477.4	554.1	639.2	733.9	839.3	956.5	1,095.0	1,239.6	1,400.7	1,580.4	1,780.8 2	2,004.3	1,916.7	2,194.8	2,367.2
Worlda Capital Burden Cumulative cash deficit 10% interst on above Cum, Interst Payment	951.1 95.1 181.4	1,172.1 117.2 298.6	1,423.3	1,708.2 170.8 611.7	2,030.7 203.1 814.8	2,395.1 239.5 1,054.3	2,725.7 272.6 1,326.9	3,108.7 310.9 1,637.8	3,517.2 351.7 1,989.5	3,994.7 399.5 2,388.9	4,548.7 454.9 2,843.8	5,188.0 518.8 3,362.6	5,921.9 592.2 3,954.8	6,761.1 676.1 4,630.9	7,717,7 771.8 5,402.7	8,812.7 10 881.3 1 6,284.0 7	10,052.3 11 1,005.2 1 7,289.2 8	11,453.0 12 1,145.3 1 8,434.5 5	13,033.5 14 1,303.3 1 1,737.8	14,8143 16 1,481,4 1	16,818.6 18 1,681.9 12,901.1 14	18,735.3 20, 1,873.5 ; 14,774.6 14	20,930.1 2 2,093.0 :	23,297.3 2,329,7 19,197.4
Income Statement Armual Sales	423.5	470.5	522.7	580.7	645.2	716.8	796.3	7.488	982.9	1,092.1	1,213.3	1,347.9	1,497.6	1,663.8	1,848.5	2,053.7	2,281.6	2,534.9	2,816.2	3,128.8	3,476.1	3,862.0	4,290.7	4,766.9
O & M Overhead (10 % of Sales) Annual Depreciation Interest Parment (10%)	208.4 42.3 16.8 12.3	229.3 47.0 16.8 11.4	2522 523 16.8 10.5	277.4 58.1 16.8 9.7	305.2 64.5 16.8 8.8	335.7 71.7 16.8 7.9	369.2 79.6 57.7 87.7	406.2 88.5 57.7 86.8	446.8 98.3 57.7 82.3	491.5 109.2 57.7 77.7	540.6 121.3 57.7 73.2	594.7 134.8 57.7 68.6	654.1 149.8 57.7 64.1	719.5 166.4 57.7 59.5	791.5 184.8 57.7 55.0	870.6 205.4 57.7 51.3	957.7 228.2 57.7 47.7	253.5 57.7 44.0	1,158.8 281.6 57.7 40.3	312.9 312.9 57.7 36.7	1,402.2 347.6 57.7 33.0	1,542.4 386.2 228.6 366.2	1,696.6 429.1 228.6 362.6	1.866.3 476.7 228.6 343.6
Net income	143.6	165.9	190.9	218.7	249.9	284.7	202.1	245.6	297.9	355.9	420.4	492.1	571.9	9.099	759.4	868.6	990.3	1,126.2	1,277.7	1,446.9	1,635.6	1,338.6	1,573.8	1,851.8
Balance Sheet Cash Capital Investment Less Accum. Depreciation Land Total Assets	951.1 4,426.0 275.7 96.6 5,198.0	1,172.1 4,426.0 292.5 96.6 5,402.2	1,423.3 4,426.0 309.4 96.6 5,636.6	1,708.2 4,426.0 326.2 96.5 5,904.6	2,030.7 4,426.0 343.0 96.6 6,210.2	2,395,1 4,426,0 359,9 96.6 6,557,8	2,725.7 12,491.4 117.6 96.6 14,896.1	3,108.7 12,491.4 175.3 96.6 15,221.4	3,517.2 12,491.4 533.1 96.6 15,572.1	3,994.7 12,491.4 590.8 96.6 15,991.9	4,548.7 12,491.4 648.5 96.6 16,488.2	5,188.0 12,491.4 706.3 96.6 17,069.7	5,921.9 12,491.4 764.0 96.6 17,745.9	6,761.1 12,491.4 12,491.7 821.7 96.6 18,527.4	7,717.7 12,491.4 1 879.5 96.6 19,426.2 2	8,812.7 10 12,491.4 1 937.2 96.6 20,463.5 2	10,052.3 17 12,491.4 17 994.9 96.6 21,645.4 2	11,453.0 12,12,491.4 12,1052.7 96.6	13,033.5 1- 12,491.4 1 1,110.4 96.6 24,511.1 2	14,814.3 10 12,491.4 11 1.168.1 96.6 26,234.1 2	16,818.6 1 12,491.4 4 1,225.8 96,6 28,180.7 6	18,735.3 2 46,182.5 4 1,454.4 96,6 63,560.0 6	20,930.1 2 46,182.5 4 1,683.0 96.6 65,526.2 6	23,297.3 46,182.5 1,911.6 96.6 67,664.9
Loan Balance Grant from GSL Reserved Fund Total Liab. & Capital	122.9 4,070.3 1,004.8 5,198.0	114.1 4,070.3 1,217.8 5,402.2	105.3 4.070.3 1,460.9 5,636.6	96.5 4,070.3 1,737.7 5,904.6	87.8 4,070.3 2,052.1 6,210.2	79.0 4,070.3 2,408.5 6,557.8	876.8 11.329.2 2,690.2 14,896.1	868.0 11,329.2 3,024.2 15,221.4	822.5 11,329.2 3,420.4 15,572.1	777.1 11,329.2 3,885.6 15,991.9	731.7 11,329.2 4,427.3 16,488.2	686.2 11,329.2 5,054.3 17,069.7	640.8 11,329.2 5,775.9 17,745.9	595.4 11,329.2 6,602.9 18,527.4	549.9 11,329.2 7,547.1 19,426.2	513-3 11,329.2 1 8,621.1 20,463.5 2	476.6 11,329.2 9,839.6 21,645.4	439.9 11,329.2 11,219.3 22,988.4	403.3 11,329.2 12,778.6 24,511.1	366.6 11,329.2 1 14,538.3 1 26,234.1 2	329.9 11,329.2 4 16,521.6 1 28,180.7 6	3.662.4 41,651.3 4 18,246.4 2 63,560.0 6	3,625.7 41,651.3 4 20,249.2 2 65,526.2 6	3,435.9 41,651.3 22,577.7 67,664.9



Calculation of FIRR Kandy Sewerage Project (F/S) Case B-2

										(1998 Price)	
Year	Vol	ume	Та	riff .	Revenue	Investment	10% of Inv.	O&M	OH	Net Inflow	FIRR
	Dom	Non-Dom	Dom	Non-Dom	Total						
	cum/d	cun/d	Rs./cum	Rs./cum	M Rs./Y	M Rs.	M Rs.	M Rs.	M Rs.	M Rs.	
2000											
2001						147.0	14.7			(14.70)	
2002						552.0	55.2			(55.20)	
2003						986.0	98.6			(98.60)	
2004	404	1102	2.00	10.00	4.3		0.0	6.65		(2.33)	
2005	829	2259	2.02	10.10	8.9		0.0	8.81		0.13	
2006	1273	3469	2.04	10.20	13.9		0.0	10.98		2.89	
2007	1737	4736	2.06	10.30	19.1	 	0.0	13.14		5.98	
2008	1779	4850	2.08	10.41	19.8		0.0	13.14		6.63	
2009	1822	4966	2.10	10.51	20.4		0.0	13.14		7.31	
2010	1866	5086	2.12	10.62	21.2		0.0	13.14		8.01	
	1907	5198	2.12	10.02	21.8		0.0	13.14		8.69	
2011	1949	5312	2.14	10.83	22.5		0.0	13.14		9.40	
2012		5420	2.17	10.83	23.2		0.0	13.14	 	10.08	
2013	1988						0.0	13.14		10.08	
2014	1988	5420	2.21	11.05	23.5					10.55	.
2015	1988	5420	2.23	11.16	23.7		0.0	13.14			
2016	1988	5420	2.25	11.27	23.9	ļ	0.0	13.14		10.79	
2017	1988	5420	2.28	11.38	24.2	227.0	0.0	13.14	 	11.03	· .
2018	1988	5420	2.30	11.49	24.4	287.0	28.7	13.14		(17.43)	
2019	1988	5420	2.32	11.61	24.7	ļ	0.0	13.14		11.51	<u></u>
2020	1988		2.35	11.73	24.9		0.0	13.14		11,76	
2021	1988		2.37	11.84	25.1	<u> </u>	. 0.0	13.14	 	12.01	
2022	1988	5420	2.39	11.96	25.4		0.0	13.14	<u></u>	12.26	
2023	1988		2.42	12.08	25.7	<u> </u>	0.0	13.14		12.51	
2024	1988		2.44	12.20	25.9	<u></u>	0.0	13.14		12.77	
2025	1988		2.46	12.32	26.2	<u> </u>	0.0	13.14		13.03	' <u>.</u>
2026	1988		2.49	12.45	26.4		0.0	13.14		13.29	<u> </u>
2027	1988		2.51	12.57	26.7		0.0	13.14		13.56	
2028	1988		2.54	12.70	27.0		0.0	13.14	100	13.82	
2029	1988		2.56	12.82	27.2		0.0	13.14		14.09	
2030	1988		2.59	12.95	27.5		0.0	13.14		14.36	
2031	1988		2.62	13.08	27.8		0.0	13.14		14.64	
2032	1988	5420	2.64	13.21	28.1		0.0	13.14		14.92	
2033	1988	5420	2.67	13.35	28.3	287.0	28.7	13.14		(13.50)	
2034	1988		2.70	13.48	28.6		0.0	13.14		15.48	
2035	1988		2.72	13.61	28.9		0.0	13.14		15.77	
2036	1988	5420	2.75	13.75	29.2	Ι	0.0	13.14		16.06	
2037	1988		2.78	13.89	29.5	1	0.0	13.14		16.35	
2038	1988		2.81	14.03	29.8	Ī	0.0	13.14		16.64	
2039	1988		2.83	14.17	30.1		0.0	13.14		16.94	
2040	1988		2.86	14.31	30.4		0.0	13.14		17.24	
2041	1988		2.89	14.45	30.7		0.0	13.14		17.55	
2042	1988			14.60	31.0		0.0	13.14		17.85	
2043	1988			14.74	31.3		0.0	13.14		18.16	
2044	1988			14.89	31.6		0.0	13.14		18.48	.::
2045	1988			15.04	31.9		0.0	13.14		18.79	-
2046	1988			15.19	32.3		0.0	13.14		19.11	
2047	1988			15.34	32.6		0.0	13.14		19.43	
2048	1988			15.49	32.9		28.7	13.14	· · · · · ·	(8.94)	-
											
2049	1988	5420	3.13	15.65	33.2		0.0	13.14		20.09	

2050 Note:

- 1. 1 % annual tariff increase in real terms.
 2. Unit tariff of Non Domestic User is 5 times of Domestic User.
- 3. 90 % subsidy for capital investment.
- 4. Overhead is assumed to be 10% of Revenue.
- 5. Investment Cost in 2050 is assumed salvege value.

Appendix 18.10 Financial Analysis for Case C

Appendix 18.10.1	Pro-forma Financial Statements - Kandy Sewerage Project (Master Plan, Case C-1)
Appendix 18.10.2	Calculation of FIRR - Kandy Sewerage Project (Master Plan, Case C-1)
Appendix 18.10.3	Pro-forma Financial Statements - Kandy Sewerage Project (Master Plan, Case C-2)
Appendix 18.10.4	Calculation of FIRR - Kandy Sewerage Project (Master Plan, Case C-2)
Appendix 18.10.5	Pro-forma Financial Statements - Kandy Sewerage Project (Feasibility Study, Case C-1)
Appendix 18.10.6	Calculation of FIRR - Kandy Sewerage Project (Feasibility Study, Case C-1)
Appendix 18.10.7	Pro-forma Financial Statements - Kandy Sewerage Project (Feasibility Study, Case C-2)
Appendix 18.10.8	Calculation of FIRR - Kandy Sewerage Project (Feasibility Study, Case C-2)

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	Pro I Kand	orma Iy Sev	Fina verag	ncial e Pro	Pro Forma Financial Statemen Kandy Sewerage Project (M/P)	ments M/P)	Pro Forma Financial Statements (MRs.) Kandy Sewerage Project (M/P)	Rs.)	. 🕶 🗖	Case (3-1 10 tariff	0 % S incres	Case C-1 100 % Subsidy 1.0 % tariff increase in r	Case C-1 100 % Subsidy 1.0 % tariff increase in real terms	SIII.										•		
Year	2000	2001	2002	2003	2004	2005	2006	2007	2608	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	. 2020	2021	2022 2	2023 2	2024 2	2025 2	2026
Fund Flow Table Annual Sales Subsidy from GSL Tone (100 Person)	000	203.6	0.0 666.2 1,	0.0 1,364.1	8.0 0.0	10.9	18.6 0.0 0.0	28.3	32.2 0.0 0.0	36.6 0.0 0.0	41.6 0.0 0.0	47.3 241.7 1 0.0	53.7	61.0 2,197.2 0.0	9.97 0.0 0.0	9.0 0.0 0.0	0.0	148.2 0.0 0.0	167.9 861.1 0.0	190.3 0.0	215.6 0.0 0.0	246.7 0.0 0.0	276.9	313.8 0.0 0.0	355.6 2 0.0 0.0	396.7 4 0.0	0.0
Capital Investment Interest Payment (10%) Annual Loan Repayment O & M	and the second second	203.6 0.0 0.0 0.0		0.0	0.0	0.0 0.0 0.0 11.3	0.0 0.0 0.0 1.62	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.00 4.5	0.0 0.0 26.5	0.0 0.0 0.0 2.92 4.2	241.7 1 0.0 0.0 32.1 4.7	1,686.1 0.0 0.0 35.3 5.4	2,197.2 0.0 0.0 38.8 6.1	0.0 0.0 63.4 8.0	0.0 0.0 8.8 8.8	0.0 0.0 100.5 12.2	0.0 0.0 0.0 123.7 14.8	861.1 0.0 0.0 136.1 16.8	0.0 0.0 0.0 149.7 19.0	0.0 0.0 0.0 164.6 21.6	0.0 0.0 0.0 181.1 24.7	0.0 0.0 0.0 199.2 	0.0 0.0 0.0 219.1	0.0 0.0 0.0 241.0 35.6	0.0 0.0 0.0 265.1	0.0 0.0 0.0 8.1.4 1.4
Overment (10 % 01 parcs) Net Cash Inflow	0.0	0.0	00	8 8	(5.9)	(1.5)	0.6	3.5	8.4	6.4	8.3	10.5	13.0	16.0	8.4	8,8	9.5	9.7	15.1	21.6	29.4	40.9	50.0	63.3	79.0	1 676	105.0
Working Capital Burden Cumulaire cash deficit 10% interst on above Cum. Interst Payment		0.0	0.0	0.0	6.0 (6.0) (6.0)	(6.4) (0.7)	(6.9) (0.4) (1.1)	(6.3) (2.3)	4.5 0.5 (0.7)	1.1	19.2	3.0	42.7 4.3 9.6	58.8 5.9 15.4	67.2 6.7 22.2	76.0 7.6 29.8	35.2 8.5 38.3	94.9 9.5 47.8	110.0 11.0 58.8	131.6 13.2 71.9	161.0 16.1 88.0	201.9 20.2 108.2	252.0 25.2 133.4	315.3	394.3 394.3 204.4	486.2 ±	591.2 59.1 312.1
Income Statement Annual Sales	0.0	0.0	0.0	0.0	8.4	10.9	18.6	28.3	32.2	36.6	41.6	47.3	53.7	61.0	9.67	4.66	121.9	148.2	167.9	190.3	215.6	246.7	276.9	313.8	355.6	396.7	440.7
O & M Overhead (10 % of Sales) Annual Depreciation Interest Depreciation	0000	0.00	0.000	0.000	7.2 0.5 0.0	11.3 1.1 0.0	16.2 1.9 0.0	21.9 2.8 0.0	42 2.6 0.0 0.0	26.5 3.7 0.0	29.2 4.2 0.0 0.0	32.1 4.7 0.0 0.0	35.3 5.4 0.0	38.8 6.1 0.0 0.0	63.4 0.0 0.0	80.6 9.9 0.0	100.5 12.2 0.0 0.0	123.7 14.8 0.0 0.0	136.1 16.8 0.0 0.0	149.7 19.0 0.0 0.0	164.6 21.6 0.0 0.0	181.1 24.7 0.0 0.0	27.7 27.7 0.0 0.0	31.4 31.4 0.0 0.0	35.6 0.0 0.0	265.1 39.7 0.0 0.0	291.6 44.1 0.0 0.0
Net Income	0.0	0.0	0.0	0.0	(2.9)	(1.5)	9.0	3.5	4.8	6.4	8.3	10.5	13.0	16.0	8.4	8.8	9.2	7.6	15.1	21.6	29.4	40.9	20.0	63.3	0.67	91.9	105.0
Balance Sheet Cash Capital Investment Less Acoum. Depreciation Land Total Assets		0.0 97.2 0.0 106.5 203.6	0.0 763.3 0.0 106.5 869.8	0.0 2,127.4 0.0 106.5 2,233.9	2,127.4 0.0 106.5 2,231.0	(4.4) 2,127.4 0.0 106.5 2,229.5	(3.9) 2,127.4 0.0 106.5 2,230.1	(0.3) 2,127.4 0.0 106.5 2,233.6	4.5 2,127.4 0.0 106.5 2,238.4	10.9 2,127.4 0.0 106.5 2,244.8	19.2 2,127.4 0.0 106.5 2,253.2	2,300.0 0.0 175.5 2,505.3	42.7 3.986.1 0.0 175.5 4,204.4	58.8 5,183.4 0.0 175.5 6,417.7	6,183.4 0,0 175.5 6,426.1	76.0 6,183.4 0.0 175.5 6,434.9	85.2 6.183.4 0.0 175.5 6,444.1	94.9 6,183.4 0.0 175.5 6,453.8	110.0 7,044.5 0.0 175.5 7,330.0	131.6 7,044.5 7 0.0 175.5 7,351.6	161.0 7.044.5 7 0.0 175.5 7,381.0	201.9 7.044.5 7 0.0 175.5 7,421.9 7	252.0 7,044.5 7, 0.0 175.5 7,472.0 7,	315.3 7,044.5 7, 0.0 175.5 7,535.3 7,	394.3 7,044.5 0.0 175.5 7,614.3 7,	486.2 7.044.5 0.0 175.5 7.706.2	591.2 7,044.5 0.0 175.5 7,811.3
Loan Balance Grant from GSL Keserved Fund Total Liab, & Capital		0.0 203.6 0.0 203.6	0.0 8.69.8 0.0 8.69.8	0.0 2,233.9 0.0 2,233.9	0.0 2,233.9 (2.9) 2,231.0	0.0 2,233.9 (4.4) 2,229.5	0.0 2,233.9 (3.9) 2,230.1	0.0 2,233.9 (0.3) 2,233.6	0.0 2,233.9 4.5 2,238.4	0.0 2,233.9 10.9 2,244.8	0.0 2,233.9 19.2 2,253.2	0.0 2,475.6 29.7 2,505.3	0.0 4,161.7 42.7 4,204.4	0.0 6,358.9 58.8 6,417.7	0.0 6,358.9 67.2 6,426.1	0.0 6,358.9 76.0 6,434.9	0.0 6,358.9 85.2 6,444.1	0.0 6,358.9 94.9 6,453.8	0.0 7,220.0 110.0 7,330.0	0.0 7,220.0 131.6 7,351.6	0.0 7,220.0 161.0 7,381.0	0.0 7,220.0 7 201.9 7,421.9 7	0.0 7,220.0 7 252.0 7,472.0 7	0.0 7,220.0 315.3 7,535.3	0.0 7,220.0 7 394.3 7,614.3 7	0.0 7.220.0 7. 486.2 7.706.2 7.	0.0 7,220.0 591.2 7,811.3

Table A18.10.1

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	Pro Fo Kandy	rma F Sewer	inanci age Pr	Pro Forma Financial Statemen Kandy Sewerage Project (M/P)	ement (M/P)	Pro Forma Financial Statements (M Ks.) Kandy Sewerage Project (M/P)			•	Case C-1 100 % Subsidy 1.0 % tariff increase in real terms	-1 100 ariffi	% Sur	osidy e in rea	d term	50									
Year	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	204	29 S	2046	2047	2048	2049	2050
Fand Flow Table Annual Sales Subsidy from GSL Loan (10% Interest)	. 489.7 0.0 0.0	544.0 1,465.7 0.0	604.4 0.0 0.0	671.5 0.0 0.0	746.0 0.0	828.8 0.0 0.0	920.8 3,597.1 0.0	1,023.0 0.0 0.0	1,136.6 0.0 0.0	1,262.8 0.0 0.0	1,402.9 0.0 0.0	0.0	1,731.7 6.0 6.0	1,923.9 0.0 0.0	2,137.4 0.0 0.0	2,374.7 0.0 0.0	2,638.3 6,122.8 0.0	2,931.1 3 0.0 0.0	3,256.5 0.0 0.0	3,617,9 0.0 0.0	4,019.5 0.0 1 0.0	4,465.7 15,026.0 0.0	4,961.4 0.0 0.0	5,512.1 0.0 0.0
Capital Investment Interest Payment (10%) Annual Loan Repayment O & M Overhead (10 % of Sales)	0.0 0.0 320.8 49.0	1,465.7 0.0 0.0 352.9 54.4	0.0 0.0 388.2 60.4	0.0 0.0 0.0 427.0 67.1	0.0 0.0 0.0 469.7 74.6	0.0 0.0 0.0 516.7 82.9	3,597.1 0.0 0.0 568.3 92.1	0.0 0.0 0.0 625.1	0.0 0.0 0.0 687.7	0.0 0.0 0.0 756.4 126.3	0.0 0.0 0.0 832.1 140.3	0.0 0.0 0.0 915.3 155.9	0.0 0.0 0.0 1,006.8 173.2	0.0 0.0 0.0 1,107.5	0.0 0.0 0.0 1,218.2 213.7	0.0 0.0 0.0 1,340.1 237.5	6.122.8 0.0 0.0 1,474.1 263.8	0.0 0.0 0.0 1,621.5	0.0 0.0 0.0 1,783.6	0.0 0.0 0.0 1,962.0	0.0 0.0 0.0 2.158.2 402.0	15.026.0 0.0 0.0 2.374.0 446.6	0.0 0.0 0.0 2.611.4 496.1	0.0 0.0 0.0 0.0 2.872.5 551.2
Net Cash Inflow	119.9	136.7	155.8	177.4	201.7	229.3	260.4	295.6	335.3	380.1	430.6	487.5	551.7	624.0	705.4	797.2	900.4	1,016.5	1,147.2	1,294.2	1,459.4	1,645.1	1,853,9	2,088.4
Working Capital Burden Cumulaire cast deficit 10% interst en above Cum. Interst Payment	711.1 71.1 388.2	847.9 84.8 468.0	1,003.7 100.4 568.4	1,181.0 118.1 686.5	1,382.7 138.3 824.8	1.612.0 161.2 986.0	1,872.5 187.2 1,173.2	2,168.1 216.8 1,390.0	2,503.3 250.3 1,640.3	2,883.4 288.3 1,928.7	3,314.0 331.4 2,260.1	3,801.5 380.1 2,640.2	4,353.1 435.3 3,075.5	4,977.1 497.7 3,575.3	5,682.6 568.3 4,141.5	6,479.7 648.0 4,789.5	7,380.1 6 738.0 5,527.5	8.396.7 839.7 6.367.2	9,543.9 10 954.4 : 7,321.6 8	10,838.0 12 1,083.8 8,405.4	12,297,4 1 1,229,7 9,635.1 1	13,942.5 1 1,394.3 11,029.4 1	1,5796.4 1 1,579.6 12,609.0 1	17,884.8 1,788.5 14,397.5
Income Statement Annual Sales	489.7	544.0	604.4	511.5	746.0	828.8	920.8	1,023.0	1,136.6	1,262.8	1,402.9	1,558.6	1,731.7	1.923.9	2,137.4	2,374.7	2,638.3	2,931.1	3,256.5	3,617.9	4,019.5	4,465.7	4,961.4	5,512.1
O & M Overhead (10 % of Sales) Annual Depreciation Interest Payment (10%)	320.8 49.0 0.0	3529 54.4 0.0	388.2 60.4 0.0 0.0	427.0 67.1 0.0 0.0	469.7 74.6 0.0 0.0	516.7 82.9 0.0	568.3 92.1 0.0 0.0	625.1 102.3 0.0 0.0	687.7 113.7 0.0	756.4 126.3 0.0	832.1 140.3 0.0 0.0	915.3 155.9 0.0 0.0	1,006.8 173.2 0.0 0.0	1,107.5 192.4 0.0 0.0	1,218.2 213.7 0.0 0.0	1,340.1 237.5 0.0 0.0	1,474.1 263.8 0.0 0.0	293.1 293.1 0.0 0.0	325.6 0.0 0.0	1,962.0 361.8 0.0 0.0	2,158.2 402.0 0.0 0.0	2,374.0 446.6 0.0 0.0	2,611.4 496.1 0.0 0.0	2,872.5 551.2 0.0 0.0
Net Income	119.9	136.7	155.8	177.4	201.7	229.3	260.4	295.6	335,3	380.1	430.6	487.5	551.7	624.0	705.4	797.2	4.006	1,016.5	1,147.2	1,294.2	1,459.4	1,645.1	1,853.9	2,088.4
Balance Sheet Cash Capital Investment Less Accum. Depreciation Land Total Assets	711.1 7,044.5 0.0 175.5 7,931.2	847.9 8.510.2 0.0 175.5 9.533.6	1,003.7 8,510.2 0.0 175.5 9,689.4	1,181.0 8,510.2 0.0 175.5 9,866.8	1,382.7 8,510.2 0.0 175.5 10,068.5	1,612.0 8,510.2 0.0 175.5 10,297.8			2,503.3 12,107.3 0.0 175.5 14,786.2	2,883.4 12,107.3 0.0 175.5 15,166.3							14							17,884.8 33,256.2 0.0 175.5 51,316.5
Loan Balance Grant from GSL Reserved Fund Total Liab. & Capital	0.0 7,220.0 711.1 7,931.2	8,685.8 847.9 9,533.6	0.0 8,685.8 1,003.7 9,689.4	0.0 8,685.8 1,181.0 9,866.8	0.0 8,685.8 1,382.7 10,068.5	0.0 8,685.8 1,612.0 10,297.8	0.0 12,282.9 1,872.5 14,155.3	0.0 12,282.9 2,168.1 14,450.9	0.0 12,282.9 2,503.3 14,786.2	0.0 12,282.9 2,883.4 15,166.3	0.0 12,282.9 3,314.0 15,596.8	0.0 12,282.9 3,801.5 16,084.3	0.0 12,282.9 1 4,353.1 16,636.0 1	0.0 12,282.9 1 4,977.1 17,260.0 1	0.0 12,282.9 1 5,682.6 17,965.5 1	0.0 12,282.9 1 6,479.7 1	0.0 18,405.7 7,380.1 25,785.8	0.0 18,405.7 11 8,396.7 9 26,802.3 2	0.0 18,405.7 1: 9,545.9 1(27,949.5 2:	0.0 18,405.7 10,838.0 11,29,243.7	0.0 18,405.7 3 12,297.4 1 30,703.1 4	33,431.7 13,942.5 17,374.2	0.0 33,431.7 15,796.4 19,228.1 5	33,451.7 17,884.8 51,316.5

Table A18.10.2 Calculation of FIRR Kandy Sewerage Project (M/P) Case C-1

(1998 Price)

											(1998 P	
Year	Vo	lume		ariff		Revenue		Investment	O&M	OH	Net Inflow	FIRR
	Dom	Non-Dom	Dom	Non-Dom	Dom	Non-Dom	Total					
	cum/d	cum/d	Rs./cum	Rs./cum	M Rs./Y	M Rs./Y	M Rs./Y	M Rs	M Rs	M Rs	M Rs	
2000	V 0, 1	11										
2001								153.0			0.00	
2002								455.0			0.00	
2003								847.0			0.00	
2004	404	1,102	2.0	6.0	0.3	2.4	2.7	·	4.09	0.27	(1.65)	
2005	829	2,259	2.0	6.1	0.6	5.0	5.6		5.82	0.56	(0.77)	
2006	1,273	3,469	2.0	6.1	0.9	7.7	8.7		7.56	0.87	0.27	
2007	1,737	4,736	2.1	6.2	1.3	10.7	12.0		9.30	1.20	1.50	
2008	1,779	4,850	2.1	6.2	1.4	11.1	12.4		9.30	1.24	1.87	
2009	1,822	4,966	2.1	6.3	1.4	11.4	12.8		9.30	1.28	2.25	
2010	1,866	5,086	2.1	6.4	1.4	11.8	13.3		9.30	1.33	2.65	
2011	1,907	5,198	2.1	6.4	1.5	12.2	13.7	70.0	9.30	1.37	3.03	
2012	1,949	5,312	2,2	6.5	1.5	12.6	14.1	444.0	9.30	1.41	3.43	
2013	1,991	5,429	2.2	6.6	1.6	13.0	14.6	526.0	9.30	1.46	3.84	
2014	2,941	6,204	2.2	6.6	2.4	15.0	17.4		13.81	1.74	1.84	
2015	3,828	6,770	2.2	6.7	3.1	16.5	19.7	· · · · · · · · · · · · · · · · · · ·	15.95	1.97	1.75	
2016	4,679	7,326	2.3	6.8	3.8	18.1	21.9		18.08	2.19	1.65	
2017	5,549	7,871	2.3	6.8	4.6	. 19.6	24.2		20.22	2.42	1.58	
2018	5,660	8,028	2.3	6.9	4.7	20.2	25.0	128.0	20.22	2.50	2.24	
2019	5,774	8,189	2.3	7.0	4.9	20.8	25.7		20.22	2.57	2.92	
2020	5,889	8,352	2.3	7.0	5.0	21.4	26.5		20.22	2.65	3.62	
2021	6,007	8,619	2.4	7.1	5.2	22.4	27.5		20.22	2.75	4.57	
2022	6,127	8,690	2.4	7.2	5.4	22.8	28.1		20.22	2.81	5.08	
2023	6,250	8,864	2.4	7.2	5.5	23.5	29.0		20.22	2.90	5.84	
2024	6,375	9,041	2.4	7.3	5.7	24.2	29.8		20.22	2.98	6.63	
2025	6,401	9,078	2.5	7.4	5.8	24.5	30.3		20.22	3.03	7.01	
2026	6,401	9,078	2.5	7.5	5.8	24.7	30.6		20.22	3.06	7.28	
2027	6,401	9,078	2.5	7.5	5.9	25.0	30.9		20.22	3.09	7.56	
2028	6,401	9,078	2.5	7.6	5.9	25.2	31.2	84.0	20.22	3.12	7.84	
2029	6,401	9,078	2.6	7.7	6.0	25.5	31.5		20.22	3.15	8.12	
2030	6,401	9,078	2.6	7.8	6.1	25.8	31.8		20.22	3.18	8.40	
2031	6,401	9,078	2.6	7.8	6.1	26.0	32.1	T	20.22	3.21	8.69	
2032	6,401	9,078	2.6	7.9	6.2	26.3	32.4		20.22	3.24	8.98	
2033	6,401	9,078	2.7	8.0	6.2	26.5	32.8	128.0	20.22	3.28	9.27	
2034	6,401	9,078	2.7	8.1	6.3	26.8	33.1	1	20.22	3.31	9.56	
2035	6,401	9,078		8.2	6.4	27.1	33.4		20.22	3.34	9.86	
2036	6,401	9,078		8.2	6.4	27.3	33.8		20.22	3.38	10.16	
2037	6,401	9,078		8.3	6.5	27.6	34.1		20.22	3.41	10.46	
2038	6,401	9,078	2.8	8.4	6.6	27.9	34.4		20.22	3.44	10.77	
2039		9,078		8.5	6.6		34.8		20.22	3.48	11.08	
2040	6,401			8.6	6.7	28.4	35.1		20.22	3.51	11.39	
2041	6,401	9,078		8.7	6.8	28.7	35.5		20.22	3.55	11.71	
2042	6,401	9,078		8.8	6.8	29.0	35.8		20.22	3.58	12.03	
2043		9,078			4	29.3	36.2	84.0	20.22	3.62	12.35	
2044		9,078	3.0	8.9	7.0	29.6	36.6		20.22	3.66	12.68	
2045	6,401	9,078	3.0	9.0	7.0	29.9	36.9		20.22	3.69		
2046	6,401	9,078		9.1	7.1	30.2	37.3		20.22	3.73	13.34	
2047				9.2	7.2	30.5	37.7	<u> </u>	20.22	3.77	13.68	L
2048				9.3	+		38.0	128.0	20.22	3.80	14.01	
2049				9.4	7.3	31.1	38.4		20.22	3.84	14.36	
2050				9.5	7.4	31.4	38.8	(61.9)	20.22	3.88	14.70	47.45%
			+	in real term								

Note: 1.1 % annual tariff increase in real term.

- 2. Tariff rate of Non-Domestic User is 3 times of Domestic User.
- 3. 100 % Grant for capital investment is assumed.
- 4. Overhead is assumed to be 10% of Revenue.
- 5. Investment Cost in 2050 is assumed salvege value.

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	Pro Kar	For	Pro Forma Financial Statements (M Rs.) Kandy Sewerage Project (M/P)	ancial	State	ments M/P)	(M.)	Rs.)	• -	Case C-2 1.0 % tari	72 9K tariffi	% Si increa	90 % Subsidy If increase in r	Case C-2 90 % Subsidy 1.0 % tariff increase in real terms	SIDIS		÷										
Year	5000	2000 2001	2002	2003	2004	2005	2006	2007 - 2008		2002	2010	2011	2012 2	2013 24		2015. 2	2016 2	2017 2	2018 2/	2019 20	2020 20	2021 20	2022 20	2023	2024	2025	2026
Fund Flow Table Annual Sales Subsidy from GSL Loan (10% Interest)	0.0	0.0	0.0 599.5 56.6	0.0	7.6 0.0 0.0	17.4	29.7 0.0 0.0	45.1 0.0 0.0	51.3 0.0 0.0	58.3 0.0 0.0	66.4 0.0 0.0	75.4 217.5 1, 24.2	85.6 1,517.5 1, 168.6	97.2 977.5 219.7	0.0 0.0	0.0	6889 0.0 0.0	0.0	228.5 2 775.0 86.1	293.0 0.0 0.0	332.0 0.0 0.0	380.1 0.0 0.0	0.0 0.0	483.2 0.0 0.0	547.6 0.0 0.0	610.8 0.0 0.0	678.6 0.0 0.0
Capital Investment Interest Payment (10%) Annual Loan Repayment O.&. M Overhead (10 % of Sales)	00000	203.6	8.7 0.0 0.0 0.0	1,364.1 22.2 0.9 0.0	0.0 21.9 4.0 7.2 0.0	20.8 20.8 10.2 11.3	0.0 19.8 10.2 16.2 0.0	0.0 18.8 10.2 21.9 0.0	0.0 17.8 10.2 24.1 0.0	0.0 16.8 10.2 26.5 0.0	0.0 · 15.8 10.2 29.2 0.0	241.7 1, 17.2 10.2 32.1 0.0	,686.1 2, 33.0 10.2 35.3 0.0	2,197.2 53.9 11.3 38.8 0.0	0.0 52.0 18.9 0.0	0.0 49.1 28.9 0.0	28.9 28.9 0.0	28.9 28.9 0.0	861.1 49.0 28.9 136.1	0.0 46.1 28.9 149.7	0.0 42.8 32.8 164.6	32.6 32.8 181.1 1	0.0 32.8 32.8 0.0	0.0 33.0 32.8 219.1	0.0 29.7 32.8 241.0	0.0 26.5 31.9 265.1	23.6 23.6 28.9 291.5 0.0
Net Cash Inflow	0.0	(2.0)	(8.7)	(23.2)	(25.4)	(24.9)	(16.5)	(5.8)	(0.8)	6.4	11.3	16.0	7.1	(6.8)	(8.5)	(3.5)	13.3	32.3	4.6	683	1.7	126.7	158.1	198.3	244.0	287.3	334.5
Working Capital Burden Cumulative cash deficit 10% interst on above Cum. Interst Payment		0.60	(1.3)	(3.9) (4.7)	(593) (5.9) (10.6)	(84.2) (8.4) (19.0)	(100.7) (10.1) (29.1)	(106.5) (10.6) (39.7)	(107.2) (10.7) (50.5)	(102.4) (10.2) (60.7)	(91.1) (9.1) (69.8)	(35.1) (3.2) (3.3)	(68.0) (6.8) (84.1)	(74.7) (7.5) (91.6)	(5.83) (8.83) (1) (8.89)	(86.7) (8.7) (108.6) (1	(73.4) (7.3) (115.9) ((41.1) (4.1) (120.0) (3.5 0.3 (1.19.7)	71.8 1 7.2 (112.5) (163.6 2 16.4 (96.1) (290.2 4 29.0 (67.1) (448.3 44.8 (22.3)	646.6 64.7 42.4	890.6 1, 89.1 131.4	.1 9.77.9 117.8 249.2	1512.5 151.2 400.5
Jacome Statement Annual Sales	000	0.0	0.0	0.0	2.6	17.4	29.7	45.1	51.3	58.3	66.4	75.4	85.6	97.2	125.8	155.1	188.9	228.2	258.5	293.0	332.0	380.1	426.4	483.2	547.6	810.8	678.6
O & M Overhead (10 % of Sales) Annual Depreciation Interest Payment (10%)	0000	3323	00 00 27 %	0.0 0.0 5.1 2.22	7.2 0.8 5.1 21.9	11.3 1.7 5.1 20.8	16.2 3.0 5.1 19.8	21.9 4.5 5.1 18.8	24.1 5.1 5.1 17.8	26.5 5.8 5.1 16.8	29.2 6.6 5.1 15.8	32.1 7.5 5.5 17.2	35.3 8.8 33.0	38.8 9.7 14.7 53.9	63.4 12.6 14.7 52.0	80.6 15.5 14.7 49.1	18.9 18.9 14.7 46.2	123.7 22.8 14.7 43.3	136.1 25.9 19.1 49.0	29.3 29.3 19.1 46.1	164.6 33.2 19.1 42.8	181.1 38.0 19.1 39.6	199.2 2 42.6 19.1 36.3	219.1 48.3 19.1 33.0	241.0 54.8 19.1 29.7	265.1 61.1 19.1 26.5	291.6 67.9 19.1 23.6
Net Income	0.0	(2.2)	(10.2)	(27.4)	(27.3)	(21.6)	(14.4)	(5.3)	(60)	4.1	2.6	13.1	(0.1)	(6'61)	(16.8)	(4.8)	8.6	23.7	28.6	48.9	723	102.4	129.2	163.7	203.0	239.1	276.5
Balance Sheet Cash Capital Investment Less Accum. Depreciation Land Total Assets		(2.0) 97.2 0.2 106.5	(10.7) 763.3 1.7 106.5 857.4	(33.9) 2,127.4 6.8 106.5 2,193.2	(593) 2,127.4 11.9 106.5 2,162.7	(84.2) 2,127.4 17.1 106.5 2,132.6	(100.7) 2,127.4 2 22.2 106.5 2,111.1	(106.5) 2,127.4 2 27.3 106.5 2,100.1 2		(102.4) 2,127.4 2 37.5 106.5	(91.1) 2,127.4 2, 42.6 106.5 2,100.2 2,	(75.1) 2,300.0 3 48.1 175.5 2,352.4 4	(68.0) 3,986.1 6, 56.9 175.5 4,036.8 6,	(74.7) 6,183.4 6, 71.6 175.5 6,212.5 6,	(83.2) 6.183.4 6. 86.3 175.5 6,189.4 6.	(86.7) 6,183.4 6, 101.0 175.5 6,171.2 6,	(73.4) 5,183.4 6, 115.7 175.5 5,169.8 6,	(41.1) 5183.4 7, 130.4 175.5 5,187.4 7,	3.5 7,044.5 7.1 149.4 175.5 7,074.1 7,	71.8 1 7.044.5 7,(168.5 1 175.5 1,7,123.4 7,1	163.6 7,044.5 187.5 175.5 7,196.0	290.2 1044.5 7,0 206.6 2175.5 1303.6 7,7	448.3 6,044.5 7,(2044.5 7,(205.6 7,7,7,7,7,7,7,7,7,7,7,7,7,7,7,7,7,7,7,	646.6 1,044.5 7,1 244.7 1,175.5 1,621.9 7,1	890.6 1, 263.7 175.5 7,846.9 8,	7,044.5 7 282.8 175.5 8,115.2 8	1,512.5 7,044.5 301.8 175.5 8,430.6
Loan Balance Grant from GSL Reserved Fund Total Liab. & Capital		20.4 183.3 (2.2) 201.4	87.0 782.8 (12.5) 857.4	222.5 218.5 2,010.5 2,010.5 (39.8) (66.4) 2,193.2 2,162.7	222.5 218.5 2,010.5 2,010.5 2 (39.8) (66.4) 2,193.2 2,162.7 2	2084 1982 1880 2,010.5 2,010.5 2,010.5 (86.2) (97.7) (98.4) 2,132.6 2,111.1 2,100.1	198.2 2,010.5 (97.7) 2,111.1		177.9 2,010.5 (94.2) 2,094.3	167.7 2,010.5 2 (84.2) 2,094.0 2	157.6 2,010.5 2, (67.9) 2,100.2 2,	171.6 2,228.0 3 (47.2) 2,352.4 4	330.1 3,745.5 5, (38.8) 4,036.8 6,	538.5 5,723.0 5, (49.0) 6,212.5 6,	519.6 5,723.0 5; (53.2) 6,189.4 6;	490.7 5,723.0 5. (42.5) 6,171.2 6,	461.8 5.723.0 5. (15.0) 6,169.8 6.	432.9 5.723.0 6, 31.5 6,187.4 7.	490.1 6,498.0 86.0 7,074.1 7,	461.2 6,498.0 6,49.1 164.1 7,123.4 7,1	428.4 6,498.0 269.7 7,196.0 7,	395.6 5.498.0 6,4 410.1 5 7,303.6 7,4	362.7 6,498.0 581.9 7,442.7 7,642.7	329.9 6,498.0 794.0 1,4 7,621.9 7,7	297.1 6,498.0 6, 1,051.8 1, 7,846.9 8,	2652 6,498.0 6,351.9 1,351.9	236.4 6,498.0 1,696.3 8,430.6

Table A18.10.3

	Pro Fo Kandy	Pro Forma Financial Statements (MRs.) Kandy Sewerage Project (M/P)	inancis age Pr	l State oject (ments M/P)	(MR		Case C-2 90 % Subsidy 1.0 % tariff increase in real terms	.2 90 ariff in	% Sub	sidy in rea	terms												
Year	7202	2028 2029		2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	7041	2042 2	2043 2	2044 2	2045 2	2046 2	2047 2	2048 2	2049 2	2050
Fund Flow Table Amual Sales Subsidy from GSL Loan (10% Interest)	754.0 0.0 0.0	837.7 1,319.2 146.6	930.6 0.0 0.0	1,033.9 0.0 0.0	1,148.7 0.0 0.0	1,276.2 0.0 0.0	3,237.4 3,59.7	0.00	0.0	0.0	2,160.2 2	2,400.0 2 0.0 0.0	2,666.4 2	2,962.4 3 0.0 0.0	3,291.2 3 0.0 0.0	3,656.5 4 0.0 5	4,062.4 4;; 5,510.5 612.3	4,513.3 s. 0.0 0.0	5,014.3 5, 0.0 0.0	6,570.9 0.0 0.0	6,189.2 6, 0.0 13, 0.0 1.	6,876.3 7. 13,523.4 1,502.6	8. 2.639.7 0.0 0.0	8,487.5 0.0 0.0
Capital Investment Interest Payment (10%) Annual Loan Repayment O & M Overhead (10 % of Sales)	21.4 22.7 320.8 0.0	1,465.7 33.8 22.7 352.9 0.0	0.0 31.5 22.7 388.2 0.0	0.0 28.6 29.3 427.0	0.0 25.6 29.3 6.93 0.0	22.7 29.3 516.7 0.0	3,597.1 55.7 29.3 568.3 0.0	29.3 29.3 625.1 0.0	00 84 8.3 7.780 000	0.0 44.7 36.9 756.4 0.0	0.0 42.0 26.9 832.1 0.0	0.0 39.3 26.9 915.3 1	0.0 36.5 26.9 1,006.8	0.0 33.9 26.9 1,107.5 1	26.9 218.2 26.9 218.2 0.0	28.9 23.0 23.0 1,340.1	6,122.8 87.8 23.0 1,474.1 1,0	0.0 85.5 23.0 1,621.5 1,	0.0 80.4 50.8 1,783.6	50.8 50.8 562.0 50.0	0.0 15, 70.3 50.8 2,158.2 2, 0.0	15,026.0 215.4 50.8 2,374.0 2,	210.4 50.8 2.611.4 2,	0.0 198.4 119.1 2,872.5 0.0
Net Cash Inflow	389.1	428.4	488.3	549.1	624.1	707.6	764.5	868.0	969.5	1,106.4	1,259.3	1,418.5	1,596,1	1,794.1 2	2,014.8 2.	2,264.6 2,	2,477.5 2,	2,783.3 3,	3,099.4 3,	3,482.7 3,5	3,910.0 4,	4,236.0 4,	4,766.9 5,	5,297.4
Working Capital Barden Cumulative cash deficit 10% interst on above Cum, Interst Payment	1,901.6 1902. 590.6	2,330.0 233.0 823.6	2,818.3 281.8 1,105.5	3,367.4 336.7 1,442.2	3,991.4 399.1 1,841.3	4.699.0 469.9 2,311.2	5,463.5 t 546.3 2,857.6	6,331.5 7 633.1 3,490.7 4	7,301.0 E 730.1 4,220.8	8,407.4 840.7 5,061.6	9,666.7 11 966.7 1 6,028.3 7	11,085.2 12 1,108.5 1 7,136.8 8	12,681.3 14 1,268.1 1 8,404.9 9	14,475.4 16 1,447.5 1 9,852.4 11	16,490.2 18, 1,649.0 1, 11,501.5 13	18,754.8 21, 1,875.5 2, 13,376.9 15,	21,232.3 24,0 2,123.2 2, 15,500.2 17,9	24,015.6 27, 2,401.6 2, 17,901.7 20,	27,115.0 30, 2,711.5 3, 20,613.2 23,	30,597.7 34,2 3,059.8 3,4 23,673.0 27,3	34,507.7 38; 3,450.8 3, 27,123.8 30;	38,743.7 43.5 3,874.4 4,5 30,998.1 35,5	43,510.6 48, 4,251.1 4, 35,349.2 40,	48,808.0 4,880.8 40,230.0
Income Statement Annual Sales	754.0	837.7	930.6	1,033.9	1,148.7	1,276.2	1,417.9	575.3	1,750.1	1,944.4	2,160.2	2,400.0	2,666.4 2	2,962.4	3,291.2 3	3,656.5 4	4,062.4 4,	4,513.3 5,	5,014.3 5,	5,570.9 6,	6,189.2 6,	6,876.5 7,	7,639.5 8,	8,487.5
O&M Overhead (10 % of Sales) Annual Depreciation Interest Payment (10%)	320.8 75.4 19.1 21.4	352.9 83.8 26.5 33.8	388.2 93.1 26.5 31.5	427.0 103.4 26.5 28.6	469.7 114.9 26.5 25.6	516.7 127.6 26.5 22.7	568.3 141.8 44.7 55.7	625.1 157.5 44.7 52.8	687.7 175.0 44.7 48.3	756.4 194.4 44.7 44.7	832.1 216.0 44.7 42.0	915.3 240.0 44.7 39.3	1,006.8 1 266.6 44.7 36.6	1,107.5 1 296.2 44.7 33.9	329.1 329.1 44.7 31.2	1,340.1 1 365.7 44.7 28.9	1,474.1 1, 406.2 75.8 87.8	1,621.5 1, 451.3 75.8 85.5	1,783.6 1, 501.4 75.8 80.4	1,962.0 2, 557.1 75.8 75.3	2,158.2 2, 618.9 75.8 70.3	2,374.0 2, 687.6 152.0 215.4	2,611.4 2, 764.0 152.0 210.4	2,872.5 848.8 152.0 198.4
Net Income	317.4	340.8	391.4	448.5	512.0	582.8	5.708	695.1	794.4	904.1	1,025.4	1,160.7	1,311.7	1,480.0	1,667.9 1	1,877.2 2,	2,018.5 2,	2,279.2	2,573.0 2,	2,900.7 3,2	3,266.1 3,	3,447.2 3.	3,901.9 4,	4,415.8
Balance Sheet Cash Capital Investment Less Accum. Depreciation Land Total Assets	1,901.6 7,044.5 320.9 175.5 8,800.7	2,330.0 8,510.2 347.4 175.5	2,818.3 8,510.2 373.9 175.5 11,130.2	3,367.4 8,510.2 400.4 175.5 11,652.8	3,991.4 4,699.0 8,510.2 8,510.2 426.8 453.3 175.5 175.5 12,250.3 12,931.4	4,699.0 : 8,510.2 II 453.3 II 75.5 II 17.5 II 17.5 II 17.5 II 17.5 II 17.95 II 4 II	5,463.5 (12,107.3 11,498.1 17,248.3 11	6,331.5 12,107.3 13 542.8 175.5 18,071.6 14	7,301.0 8 12,107.3 13 587.5 175.5 18,996.4 20	8.407.4 12.107.3 11.632.2 175.5 20,058.1 2	9,666.7 11 12,107.3 12 677.0 175.5 21,272.6 22	11,085.2 12 12,107.3 13 721.7 175.5 22,646.4 24	12,681.3 14 12,107.3 12 766.4 175.5 24,197.8 23	14,475.4 16 12,107.3 13 811.1 175.5 25,947.1 27	16,490.2 18 12,107.3 12 855.9 175.5 27,917.2 30	18,754.8 21, 12,107.3 18 900.6 175.5 50,137.1 38	21,232,3 24,0 18,230,1 18, 976,4 1, 175,5 38,661,6 41,	24,015.6 27, 18,230.1 18, 1,052.1 1, 175.5 41,369.1 44,	27,115.0 30, 18,230.1 18, 1,127.9 1, 175.5 44,392.8 47,	30,597.7 34, 18,230.1 18, 1,203.7 1, 175.5 47,799.7 51,	34,507.7 38, 18,230.1 33, 1,279.5 1. 175.5 51,633.9 70,	38,743.7 43., 33,256.2 33, 1,431.4 1, 175.5 70,743.9 75,	43,510.6 48, 33,256.2 33, 1,583.4 1, 175.5	48,808.0 33,2256.2 1,735.4 175.5 80,504.3
Loan Balance Grant from GSL Reserved Fund Total Liab. & Capital	213.7 6,498.0 2,089.0 8,800.7	337.6 7,817.2 2,513.5 10.668.3	314.9 7,817.2 2,998.0 11,130.2	285.6 7,817.2 3,550.0 11,652.8	2563 7,817.2 4,176.9 12,250.3	227.0 7,817.2 1 4,887.3 :	557.3 11,054.6 5,636.4 17,248.3	528.0 11,054.6 6,489.0 18,071.6	483.4 11,054.6 1: 7,458.4 8 18,996.4 20	446.5 11,054.6 8,557.0 20,058.1	419.6 11,054.6 11,054.4 11,772.6 21,272.6	392.7 11,054.6 11,199.1 22,646.4	365.7 11,054.6 11 12,777.4 14 24,197.8 25	338.8 11,054.6 14,553.7 25,947.1 27	311.9 11,054.6 11 16,550.8 18 27,917.2 30	288.9 11,054.6 18,793.6 30,137.1	878.1 16,565.1 16, 21,218.3 23, 38,661.6 41,	855.1 16,565.1 16, 23,948.9 27, 41,369.1 44,	804.3 16,565.1 16, 27,023.4 30, 44,392.8 47,	753.4 16,565.1 16,30,481.2 34,3 47,799.7 51,1	702.6 2 16,565.1 30, 34,366.2 38, 51,633.9 70,	2,154.4 2, 30,088.5 30, 38,501.0 43, 70,743.9 75,	2,103.5 1, 30,088.5 30, 43,166.9 48, 75,358.9 80,	1,984.4 30,088.5 48,431.4 80,504.3

Table A18.10.4 Calculation of FIRR Kandy Sewerage Project (M/P) Case C-2

												(1998 Pr	íce)
Year	Vo	lune	Ť	ariff		Revenue		Investment	10% of Inv.	O&M	OH	Net Inflow	FIRR
1 cai	Dom	Non-Dom	Dom	Non-Dom	Dom	Non-Dom	Total						
	cum/d	cum/d	Rs./cum	Rs./cum	M Rs./Y	M Rs./Y	M Rs./Y	M Rs	M Rs	M Rs	M Rs	M Rs	
2000									· ········				
2001				 				153.0	15.3			(15.3)	
2002			ļ					455.0	45.5			(45.5)	
2003	<u></u>			<u> </u>				847.0	84.7			(84.7)	
2003	404	1,102	2.0	10.0	0.3	4.0	43		0.0	4.09	0.43	(0.2)	
2005	829	2,259	2.0	10.1	0.6	8.3	8.9		0.0	5.82	0.89	2.2	
	1,273	3,469	2.0	10.2	0.9	12.9	13.9		0.0	7.56	1.39	4.9	
2006	1,737	4,736	2.1	10.2	1.3	17.8	19,1		0.0	9.30	1.91	7.9	
2007	1,737	4,730	2.1	10.3	1.4	18.4	19.8		0.0	9.30	1.98	8.5	
2008			2.1	10.4	1.4	19.1	20.4		0.0	9.30	2.04	9.1	
2009	1,822	4,966			1.4	19.7	21,2		0.0	9.30	2.12	9.7	
2010	1,866	5,086	2.1	10.6	L	20.3	21.8	70.0	7.0	9.30	2.18	3.4	
2011	1,907	5,198	2.1	10.7	1.5		22.5	444.0	44.4	9.30	2.25	(33.4)	
2012	1,949	5,312	2.2	10.8	1.5	21.0 21.7			52.6	9.30	2.33	(41.0)	
2013	1,991	5,429	2.2	10.9	1.6		23.3	526.0	0.0		2.74	10.8	
2014	2,941	6,204	2.2	11.0	2.4	25.0	27.4	ļ <u> </u>		13.81 15.95	3.07	11.7	
2015	3,828	6,770	2.2	11.2	3.1	27.6	30.7		0.0			12.5	
2016	4,679	7,326	2.3	11.3	3.8	30.1	34.0	ļ	0.0	18.08	3.40		
2017	5,549	7,871	2.3	11.4	4.6	32.7	37.3		0.0	20.22	3.73	13.4	
2018	5,660	8,028	2.3	11.5	4.7	33.7	38.4	128.0	12.8	20.22	3.84	1.6	
2019	5,774	8,189	2.3	11.6	4.9	34.7	39.6	ļ	0.0	20.22	3.96	15.4	
2020	5,889	8,352	2.3	11.7	5.0	35.7	40.8	<u> </u>	0.0	20.22	4.08	16.5	
2021	6,007	8,619	2.4	11.8	5.2	37.3	42.5	<u> </u>	0.0	20.22	4.25	18.0	ļ
2022	6,127	8,690	2.4	12.0		37.9	43.3	<u> </u>	0.0	20.22	4.33	18.7	
2023	6,250		2.4	12.1	5.5	39.1	44.6		0.0	20.22	4.46	19.9	
2024	6,375	9,041	2.4	12.2		40.3	45.9	<u> </u>	0.0	20.22	4.59	21.1	ļ
2025	6,401	9,078	2.5	12.3		40.8			0.0	20.22	4.66	21.7	
2026	6,401	9,078		12.4				<u> </u>	0.0	20.22	4.71	22.1	
2027	6,401	9,078							0.0	20.22	4.75	22.6	
2028	6,401	9,078	2.5	12.7				84.0	8.4	20.22	4.80	14.6	ļ
2029	6,401	9,078	2.6	12.8	6.0				0.0	20.22	4.85	23.4	
2030	6,401	9,078	2.6	13.0	6.1	42.9			0.0	20.22	4.90	23.9	L
2031	6,401	9,078	2.6	13.1	6.1	43.3	49.5	Ι	0.0	20.22	4.95	24.3	<u> </u>
2032	6,401	9,078	2.6	13.2	6.2	43.8	50.0	I	0.0	20.22	5.00	24.7	
2033	6,401	9,078	2.7	13.3	6.2	44.2	50.5	128.0	12.8	20.22	5.05	12.4	L
2034	6,401	9,078	2.7	13.5	6.3	44.7	51.0		0.0	20.22	5.10	25.6	
2035	6,401	9,078	2.7	13.6	6.4	45.1	51.5		0.0	20.22	5.15	26.1	i
2036						45.6	52.0	1	0.0	20.22	5.20	26.6	
2037	6,401						52.5		0.0	20.22	5.25	27.0	[
2038							53.0	1	0.0	20.22	5.30	27.5	[_
2039									0.0	20.22	5.36		
2040									0.0	20.22	5,41	28,5	
2041									0.0	20.22	5.46	28.9	
2042									0.0				
2042												21.5	
2044									0.0				1
2044									0.0				
									0.0				
2046									0.0				1
2047													
2048									0.0				1
2049													5.88
2050	6,40	ւլ ઝ,0/Հ	3 [3.4	. 13.) <i>[.</i> 4	• 1 JZ.	סיילי ויד	, 1 (OT'S	איטן ול	71 20.25		37.7	7.00

Note: 1.1 % annual tariff increase in real terms.
2. Unit tariff of Non Domestic User is 5 times of Domestic User.
3.90 % subsidy for capital investment.

^{4.} Overhead is assumed to be 10% of Revenue.

^{5.} Investment Cost in 2050 is assumed salvege value.

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Year Year Fund Flow Table Annual Sales Subsidy from GSL Loan (10% Inurest)	Pro J Kanc 2006 200 0.0	Fro Forma Fi Kandy Sewer: 2000 2001 2002 0.0 0.0 0.0 0.0 0.0 0.0	aa Fin ewera 2002 2002 0.0 666.2 0.0	Randy Sewerage Project (F/S) 2000 2001 2002 2003 2004 2004 200 200 0.0 0.0 4.8 10 200 203 666.2 1364.1 0.0 0 200 200 0.0 0.0 0 0 0	1 State 2004 2004 2004 000 000	rments F/S) 2005 10.9 0.0 0.0	Pro Forma Financial Statements (M Rs.) Kandy Sewerage Project (F/S) 2000 2001 2002 2003 2004 2005 2006 2007 0.0 0.0 0.0 0.0 4.8 10.9 18.6 28. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	28.3 0.0 0.0 0.0		Case (1.0 % 1.0 % 2009 36.6 0.0 0.0 0.0	C-1 1 tariff 2010 2010 0.00 0.00	200 % increase 2011	Case C-1 100 % subsidy 1.0 % tariff increase in re 2009 2010 2011 2012 24 36.6 416 473 537 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	77 Z	2014 2014 67.6 0.0 0.0	2015 75.1 0.0 0.0	2016 83.5 0.0 0.0	2017 92.7 0.0 0.0					ъ ¬	N	2024 193.7 0.0 0.0	***	2025 215.2 0.0 0.0
Capital Investment Interest Payment (10%) Amual Loan Repayment O & M	00000	203.6	% 0.00000000000000000000000000000000000	1,364.1 0.0 0.0 0.0	0.0 0.0 5.7 2.7 2.0	0.0 0.0 11.3	0.0 0.0 16.2 1.9	0.0 0.0 21.9 2.8	0.0 0.0 0.6 3.2 3.2	0.0 0.0 26.5 3.7	88884	0.0 0.0 0.0 1.7.4	0.0 0.0 35.3 5.4	0.0 0.0 38.8 6.1	0.0 0.0 7.24 8.8	000 6 7	5.00 8.17 8.17	5.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 62.5 10.3	0.0 0.0 0.0 11.4	0.0 0.0 7.41	83.2 14.1		0.0 0.0 100.7	0052	0.0 0.0 110.8 19.4	₩.
Net Cash Inflow	000		0.0	0.0	(2.9)	(1.5)	0.6	3.5	8.4	4.0	89	10.5	13.0	15.9	18.1	20.6	13	36.6	30.2	34.2	38.8	43.9	49.7	56.2	8	93.6	
Working Capital Barden Cumulaire cash deficit 10% interst on above Cum. Interst Payment		0.0	0.0	0.0	(2.9) (0.3) (0.3)	(6.4) (0.4)	(3.9) (0.4) (1.1)	(0.3) (0.0) (1.2)	4.5 0.5 (0.7)	10.9 1.1 0.4	19.2 1.9 2.3	29.7 3.0 5.3	42.7 4.3 9.6	5.9 5.9 15.4	76.8	97.4 9.7 32.9	120.9 12.1 44.9	147.4 14.7 59.7	177.6 17.8 77.4	211.8 21.2 98.6	250.6 25.1 123.7	294.5 29.4 153.1	344.2	400.4 40.0 227.6	463.9 46.4 274.0	040	.9 535.8 .4 53.6 .0 327.6
Income Statement	Ö	00	0.0	0.0	4,	10.9	18.6	28.3	32.2	36.6	41.6	47.3	53.7	6.09	67.6	75.1	83.5	92.7	103.0	114.4	127.2	141.3	156.9	174.4	55	193.7	
O& M Overhead (10 % of Sales) Annual Depreciation	0.0				4 6 0 0	11.3	16.2 1.9 0.0	21.9	24.1 3.2 0.0 0.0	3.7 0.0 0.0	28.2 4.4 0.0 0.0	32.1 4.7 0.0 0.0	35.3 5.4 0.0	38.8 6.1 0.0 0.0	42.7 6.8 0.0 0.0	47.0 7.5 0.0	\$1.7 8.3 0.0 0.0	56.9 9.3 0.0	62.5 10.3 0.0 0.0	68.8 11.4 0.0 0.0	75.7 12.7 0.0	83.2 14.1 0.0 0.0	91.6 15.7 0.0 0.0	100.7 17.4 0.0 0.0	110.8 19.4 0.0	8 4 6 6	121.9 14 21.5 10 0.0
Interest Payment (10%) Net Income	9 9			22	_		0.6			6,4	8.3	10.5	13.0	15.9	18.1	20.6	23.4	26.6	30.2	34.2	38.8	43.9	49.7	20.5	63.6		
Balance Sheet Cash Capital Investment Less Accum. Depreciation Land Total Assets		0.0 203.6 0.0 0.0 203.6	969.8 0.0 0.0 0.0 869.8	0.0 2,105.1 0.0 128.8	(2.9) 2.105.1 0.0 128.8	(4.4) 2,105.1 0.0 128.8 2,229.5	(3.9) 2,105.1 0.0 1,28.8 1,28.8	(0.3) 2,105.1 0.0 128.8 2,233.6	2,105.1 0.0 128.8 2,238.4	2,105.1 0.0 128.8 2,244.8	19.2 2,105.1 0.0 128.8 2,253.2	29.7 2,105.1 0.0 128.8 2,263.6	42.7 2,105.1 0.0 128.8 2,276.6	58.7 2,105.1 0.0 128.8 2,292.6	76.8 2,105.1 0.0 128.8 2,310.7	97.4 2,105.1 0.0 128.8 2,331.3	2,105.1 2,105.1 0.0 128.8 2,354.8	147.4 2,105.1 0.0 128.8 2,381.4	177.6 2,966.2 0.0 128.8 3,272.7	211.8 2,966.2 0.0 128.8 3,306.9	250.6 2,966.2 0.0 128.8 3,345.6	2,966.2 2 0.0 128.8 3,389.5			463.9 2.966.2 0.0 128.8 3.559.0		88 18
Loan Balance Grant from GSL Reserved Fund Total Liab. & Capital	•	0.0 203.6 0.0 203.6	0.0 869.8 0.0 869.8	0.0	0.0 2,233.9 (2.9) 2,231.0		0.0 0.0 2,233.9 2,233.9 (4.4) (3.9) 2,229.5 2,230.1	0.0 0.2,233.9 0.3) 0.3)	0.0 2,233.9 4.5 2,238.4	2,233.9 10.9 2,244.8	0.0 2,233.9 19.2 2,253.2	0.0 2,233.9 29.7 2,263.6	0.0 2,233.9 42.7 2,276.6	0.0 2,233.9 58.7 2,292.6	0.0 2,233.9 76.8 2,310.7	0.0 2,233.9 97.4 2,331.3	0.0 2,233.9 120.9 2,354.8	0.0 2,233.9 147.4 2,381.4	0.0 3,095.0 177.6 3,272.7	0.0 3,095.0 211.8 3,306.9	0.0 3,095.0 250.6 3,345.6	0.0 3,095.0 294.5 3,389.5	0.0 3,095.0 3,44.2 3,439.2 3	0.0 3,095.0 460.4 3,495.4	0.0 3,095.0 463.9 3,559.0		0.0 0.0 0.0 3.095.0 0.9 535.8 0.0 3.630.8

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	2049 2850	2,691.7 2,990.5 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 1,200.4 1,320.4 269.2 299.0	1,222,1	10,980.4 12,351.4 1,098.0 1,235.1 9,456.2 10,691.3	2,691.7 2,990.5	1,200.4 1,320.4 269.2 299.0 0.0 0.0 0.0 0.0	1,222.1 1,371.0	10,980.4 12,351.4 21,589.3 21,589.3 0.0 0.0 128.8 128.8 32,698.6 34,069.6	0.0 0.0 21,718.2 21,718.2 10,980.4 12,351.4 32,698.6 34,069.6
	2048	2,422.8 15,026,0 0.0	15.026.0 0.0 0.0 1,091.3 242.3	1,089.2	9,758.3 975.8 8,358.1	2,422.8	1,091.3 242.3 0.0 0.0	1,089.2	9,758.3 21,589.3 0.0 128.8 31,476.5	0.0 21,718.2 9,758.3 31,476.5
	2047	3 2,180.7 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.218.1	9.076 7	\$ 8,669.1 \$ 866.9 1 7,382.3	8 2,180.7	992.1 3 218.1 0.0 0.0	970.6	\$ 8,669.1 \$ 6,563.3 0 0.0 8 128.8 6 15,361.2	0 0.0 1 6,692.1 5 8,669.1 6 15,361.2
	2046	6.7 1.962.8 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 19.9 901.9 76.7 196.3	2 864.7	8 7,698.5 4 769.8 6 6,515.4	.7 1,962.8	29.9 901.9 76.7 196.3 0.0 0.0 0.0 0.0	2 864.7	8 7,698.5 3 6,563.3 0 0.0 .8 128.8 .9 14,390.6	0.0 0.0 22.1 6,692.1 33.8 7,698.5 25.9 14,390.6
	2045	1,76	0.0 0.0 0.0 0.0 0.0 0.0 745.3 819.9 159.0 176.7	5.8 770.2	5.6 6.833.8 5.4 683.4 5.2 5.745.6	7.56.7	745.3 819.9 1.59.0 176.7 0.0 0.0 0.0 0.0	685.8 770.2	63.6 6,833.8 63.3 6,563.3 0.0 0.0 28.8 128.8 55.8 13,525.9	6,68 13,53
	2044	1,431.3 1,590.2 0.0 0.0 0.0 0.0	0.0 0.0 0.0 677.6 74:	610.6 685.8	5,377.8 6,063.6 537.8 606.4 4,455.8 5,062.2	1,431.3 1,590.2	677.6 74 143.1 151 0.0 (610.6 68:	5,377.8 6,063.6 6,563.3 6,563.3 0.0 0.0 128.8 128.8 12,069.9 12,755.8	0.0 0.0 6,692.1 6,692.1 5,377.8 6,063.6 12,069.9 12,755.8
	2042 2043	1,288.3 1,42 0.0 0.0	0.0 0.0 0.0 616.0 67	543.5 61	4.767.2 5,37 476.7 52 3,918.0 4,48	1,288.3 1,4	616.0 6 128.8 14 0.0 0.0	543.5 61	4,767.2 5,3; 6,563.3 6,5; 0,0 128.8 1; 11,459.3 12,0	0.0 6,692.1 6,6 4,767.2 5,3: 11,459.3 12,0
(4)	2041 2	1,159.6 1, 0.0 0.0	0.0 0.0 0.0 560.0	483.7	4,223.6 4, 422.4 3,441.3 3,	1,159.6 1,	560.0 116.0 0.0 0.0	483.7	4,223.6 4, 6,563.3 6, 0.0 128.8 10,915.8 11,	0.0 6,692.1 6, 4,223.6 4, 10,915.8 11,
Case C-1 100 % subsidy 1.0 % tariff increase in real terms	2040	1,043.8 0.0 0.0	0.0 0.0 509.1 104.4	430.3	3,740.0 374.0 3,019.0	1,043.8	509.1 104.4 0.0 0.0	430.3	3,740.0 6,563.3 0.0 128.8 10,432.1	0.0 6,692.1 3,740.0 10,432.1
absidy se in re	2039	939.5 0.0 0.0	0.0 0.0 0.0 462.8 93.9	382.7	3,309.7 331.0 2,645.0	5'686	462.8 93.9 0.0 0.0	382.7	3,309.7 6,563.3 0.0 128.8 10,001.8	0.0 6,692.1 3,309.7 10,001.8
Case C-1 100 % subsidy L.0 % tariff increase in re	2038	845.6 0.0 0.0	0.0 0.0 0.0 420.7 84.6	340.3	2,927.0 292.7 2,314.0	845.6	84.5 0.0 0.0	340.3	5 2,927.0 5 6,563.3 0.0 8 128.8 8 9,619.1	0.0 1 6,692.1 5 2,927.0 8 9,619.1
C-1 1 % tariff	2037	1 761.1 0 0.0 0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 17.7 382.5 38.5 76.1	9 302.5	1 2,586.6 4 258.7 6 2,021.3	.1 761.1	.7 382.5 5 76.1 0 0.0 0.0	9 302.5	.1 2,586.6 .3 6,563.3 .0 0.0 .8 128.8 .2 9,278.8	92.1 6,692.1 34.1 2,586.6 76.2 9,278.8
Case 1.0 %	3036	616.6 685.1 0.0 0.0 0.0 0.0		.9 268.9	.2 2,284.1 .5 228.4 .2 1,762.6	5.6 685.1	316.1 347.7 61.7 68.5 0.0 0.0 0.0 0.0	1.9 268.9	015.2 2,284.1 563.3 6,563.3 0.0 0.0 128.8 128.8 707.4 8,976.2	2,4%
	4 2035	555.0 616 0.0 0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 287.4 316.1 55.5 61.7	212.2 238.9	1,776.4 2,015.2 1,77.6 201.5 1,332.7 1,534.2	555.0 616.6	287.4 316 55.5 61 0.0 0	212.2 238.9	2.0 6.5 11.8	0.0 0.0 6,692.1 6,692.1 1,776.4 2,015.2 8,468.5 8,707.4
Rs.)	2033 2034	499.6 55 3,597.1 0.0	3,597.1 0.0 261.2 50.0	188.4 21	1,564.2 1,77 156.4 17 1,155.1 1,33	499.6 \$3	261.2 50.0 0.0 0.0	188.4 21	1,564.2 1,776.4 6,563.3 6,563.3 0,0 0.0 128.8 128.8 8,256.3 8,468.5	0.0 6,692.1 6,69 1,564.2 1,77 8,256.3 8,44
ıts (M	2032 20	0.0 3.5	0.0 3.5 0.0 0.0 237.5 2	167.2	1,375.8 1,5 1.37.6 1,1 998.6 1,1	449.7	237.5 2 45.0 0.0 0.0	167.2	2,375.8 1,5 2,966.2 6,5 0.0 128.8 1	
Pro Forma Financial Statements (M Rs.) Kandy Sewerage Project (F/S)	2031	404.7 0.0 0.0	0.0 0.0 0.0 215.9 40.5	148.4	1,208.6 1, 120.9 861.1	404.7	215.9 40.5 0.0 0.0	148.4	1,208.6 1, 2,966.2 2, 0.0 128.3 4,303.6 4,	0.0 0.0 3,095.0 3,095.0 1,208.6 1,375.8 4,303.6 4,470.8
ncial St Projec	2030	364.3 0.0 0.0	0.0 0.0 0.0 196.3 4.36	131.6	1,060.2 106.0 740.2	364.3	36.4 36.4 0.0 0.0	131.6	1,060.2 2,966.2 0.0 128.8 4,155.3	3,095.0 1,060.2 4,155.3
a Finar werage	2029	327.9	0.0 0.0 0.0 0.0 32.8 4	116.7	928.6	327.9	32.8 32.8 0.0 0.0	116.7	928.6 2.966.2 0.0 128.8 4,023.7	0.0 3,095.0 928.6 4,023.7
Pro Forma Financial Stateme Kandy Sewerage Project (F/S)	7 2028	5.7 295.1 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 47.5 162.2 26.6 29.5	.6 103.4	1.5 812.0 1.9 81.2 1.1 541.3	5.7 295.1	26.6 29.5 0.0 0.0 0.0 0.0	91.6 103.4	08.5 812.0 66.2 2.966.2 0.0 0.0 28.8 128.8 03.6 3,907.0	0.0 0.0 95.0 3,095.0 08.5 812.0 03.6 3,907.0
Pro Kar	Year 2027	ř	10%) yment 1-	Inflow 91.6	Wording Capital Burden Comulative cash deficit 708.5 10% interst on above 70.9 Cum. Interst Payment 460.1	Income Statement Annual Sales 265.7	% of Sales) ciation ent (10%)		7, 2,9 ciation 1,8	2,0 7. 3,84
		Fund Flow Table Annual Sales Subsidy from GSL Loan (10% Interes	Capital Investment Interest Payment (C Annual Loan Repa O & M Overhead (10 % of	Net Cash Inflow	Worldag Cumulativ 10% inters Cum. Inter	Income State Annual Sales	O & M Overhead (10 Annual Depre Interest Paym	Net Income	Balance Sheet Cash Capital Investment Less Accum. Depri Land Total Assets	Loun Balance Grant from GSL Reserved Fund Total Liab. & Ca

Table A18.10.6 Calculation of FIRR Kandy Sewerage Project (F/S) Case C-1

												8 price)
Year	Vo	lume	T	ariff		Revenue		Investment	0&M	OH	Net Inflow	FIRR
	Dom	Non-Dom	Dom	Non-Dom	Dom	Non-Dom	Total					
	cum/d	cum/d	Rs./cum	Rs./cum	M Rs./Y	M Rs./Y	M Rs./Y	M Rs.	M Rs.	M Rs.	M Rs.	
2000												
2001						····		153.0			0.00	
2002								455.0			0.00	
2003							 	847.0		i	0.00	
2003	404	1102	2.0	6.0	0.3	2.4	2.7		4.09	0.27	(1.65)	
2005	829	2259	2.0	6.1	0.6	5.0	5.6		5.82	0.56	(0.77)	
2005	1273	3469	2.0	6.1	0.9	7.7	8.7	 	7.56	0.87	0.27	
2007	1737	4736	2.1	6.2	1.3	10.7	12.0		9.30	1.20	1.50	
2007	1779	4850		6.2	1.4	11.1	12.4		9.30	1.24	1,87	
2009	1822	4966	2.1	6.3	1.4	11.4	12.8	<u> </u>	9.30	1.28	2.25	
	1866	5086		6.4	1.4	11.8	13.3		9.30	1.33	2.65	
2010	1907	5198		6.4	1.5	12.2	13.7	 	9.30	1.37	3.03	
2011	1949	5312	2.2	6.5	1.5	12.6	14.1		9.30	1.41	3.43	
2012	1988	5420		6.6	1.6	13.0	14.6	 	9.30	1.46	3.82	
2013	1988	5420		6.6	1.6	13.1	14.7	 	9.30	1.47	3.95	1
2014	1988	5420		6.7	1.6	13.2	14.9	 	9.30	1.49	4.08	
2015	1988	5420		6.8	1.6	13.4	15.0	 	9.30	1.50	4.21	
2016	1988	5420		6.8	1.7	13.5	15.2	 	9.30	1.52	4.35	
2017				6.9	1.7	13.6		128.0	9.30	1.53	4.48	
2018	1988			7.0	1.7	13.8	15.5	120.0	9.30	1.55	4.62	
2019	1988			7.0	1.7	13.9	15.6	 	9.30	1.56	4.76	
2020	1988	5420			1.7	14.1	15.8	 	9.30	1.58	4.90	
2021	1988			7.1	1.7	14.2	15.9	 	9.30	1.59	5.04	
2022	1988				1.8	14.2			9.30	1,61	5.19	
2023	1988			7.2	1.8	14.5	16.3		9.30	1.63	5.33	
2024	1988			7.3		14.5			9.30	1.64	5.48	
2025	1988			7.4	1.8	14.8			9.30	1.66	5.63	
2026	1988			7.5					9.30	1.67	5.78	
2027	1988			7.5		14.9 15.1			9.30	1.69	5.93	
2028	1988			7.6		15.1			9.30	1.71	6.08	
2029	1988			7.7	1.9				9.30		6.23	
2030	1988								9.30		6.39	
2031	1988								9.30			
2032	1988									1.78	6.70	
2033	1988			8.0					9.30			
2034	1988								9.30		7.02	
2035									9.30			
2036									9,30			
2037									9.30			
2038									9.30			
2039		5420	0 2.8									
2040									9.30			
2041	4								9.30			
2042									9.30			
2043												
2044									9.30			
2045									9.30			
2046									9.30			ļ
2047									9,30			
2048												
2049									9.30			40.046
2050	198	8 542	0 3.2	9.5	2.3	3 [18.8	3 21.1	(110.9) 9.30	2.11	9,65	49.04%

Note: 1.1 % annual tariff increase in real terms.

- 2. Unit tariff of Non Domestic User is 3 times of Domestic User.
- 3. 100 % subsidy for capital investment.
- 4. Overhead is assumed to be 10% of Revenue.
- 5. Investment Cost in 2050 is assumed salvege value.

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	Pro Kan	Forma dy Sev	a Fina werag	incial e Pro	Pro Forma Financial Statements (M Rs.) Kandy Sewerage Project (F/S)	ments 3/S)	X		-	Case C-2 1.0 % tar	2-2 tariff	90 % increa	90 % sunsidy increase in re	Case C-2 90 % sunsidy 1.0 % tariff increase in real terms	rms		٠										
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 2	2014 2	2015 20	2016 20	2017 203	2018 2019	9 2020	2021	2022	2023	2024	2025	2026	
Fund Flow Table Annual Sales Subsidy from GSL Loan (10% Interest)	900	0.0	0.0 599.5 1 66.6	0.0 1,227.7 136.4	8.4.8 0.0 0.0	0.0	18.6 0.0 0.0	283	32.2 0.0 0.0	36.6 0.0 0.0	41.6 0.0 0.0	0.0	53.7 0.0 0.0	6.00 0.0 0.0	67.6 0.0 0.0	0.0	83.5 0.0 0.0	92.7 10 0.0 77 0.0 8	103.0 114.4 775.0 0.0 86.1 0.0	.4 127.2 .0 0.0 .0 0.0	12 141.3 10 0.0 10 0.0	156.9	174.4 0:0 0:0	193.7 0.0 0.0	23 5.2 0.0 0.0	239.1 0.0 0.0	
Capital Investment Interest Payment (10%) Annual Loan Repayment O.&. M Overhead (10 % of Sales)	0.0000	203.6 2.0 0.0 0.0	866.2 1 8.7 0.0 0.0 0.0	1,364.1 22.2 0.9 0.0	21.9 4.0 7.2 0.5	0.0 20.8 10.2 11.3	0.0 19.8 10.2 16.2 1.9	0.0 18.8 16.2 21.9 2.8	0.0 17.8 10.2 24.1 3.2	0.0 16.8 10.2 26.5 3.7	0.0 15.8 10.2 29.2 4.2	0.0 14.7 10.2 32.1 4.7	0.0 13.7 10.2 35.3 5.4	0.0 12.7 10.2 38.8 6.1	0.0 11.7 10.2 42.7 6.8	0.0 10.7 10.2 10.2 17.0 S	0.0 9.7 10.2 11.7 51.7 8.3	0.0 86 8.7 1 10.2 1 56.9 6	861.1 0.0 16.2 15.2 10.2 10.2 62.5 68.8 10.3 11.4	10 0.0 12 13.8 12 14.1 18 75.7 14 12.7	10 0.0 18 12.4 11 14.1 17 83.2 17 14.1	0.0 1 11.0 14.1 91.6	0.0 9.6 14.1 100.7 17.4	0.0 8.2 14.1 110.8 19.4	0.0 6.9 13.1 121.9 21.5	0.0 8.9 10.1 134.1 8.62	
Net Cash Inflow	0.0	(2.0)	(8.7)	(23.2)	(28.2)	(31.4)	(27.5)	(22.6)	(19.9)	(16.9)	(13.4)	(9.7)	(5.5)	(\$'0)	3.0	7.3	12.0 1	17.1	14.1 20.3	3 23.6	5 31.5	40.3	50.0	60.7	73.3	89.1	
Working Capital Burden Cumulative cash deficit 10% interst on above Cum. Interst Payment		(0.2)	(6.7) (1.1) (6.1)	(3.9) (4.7) (4.7)	(62.2) (6.2) (10.9)	(93.6) (20.2)	(121.1) (12.1) (12.1) (32.3)	(143.7) (14.4) (46.7)	(163.6) (16.4) (63.1)	(180.4) (18.0) (81.1)	(193.9) ((19.4) (100.5) ((203.6) (20.4) (120.9) ((209.1) ((20.9) ((141.8) ((205.9) (2 (21.0) (162.8) (1	(206.9) (1 (20.7) ((183.4) (2	(199.6) (18 (20.0) (1 (203.4) (22	(187.6) (17 (18.8) (1 (222.2) (23	(170.5) (15 (17.1) (1 (239.2) (25	(156.5) (136.2) (15.6) (13.6) (254.9) (268.5)	(2) (112.6) (3) (113.9) (4) (279.7)	(81.1) (8.1) (8.1) (7) (287.9)	(40.8) (4.1) (291.9)	9.2 (0.19.1)	69.9 7.0 7.0 (0.284.0)	143.2 14.3 (269.7)	2323 23.2 (246.5)	
Income Statement Annual Sales	0.0	0.0	00	0.0	8.	10.9	18.6	283	32.2	36.6	41.5	47.3	53.7	6.09	67.6	75.1 8	83.5	92.7 10	103.0 114.4	.4 127.2	12 141.3	156.9	174.4	193.7	215.2	239.1	
O&M	0.0	0.0	0.0	0.0	7.2	11.3	16.2	21.9	24.1	26.5	29.2	32.1	35.3	38.8	42.7										121.9	134.1	
Overnead (10 % of Sales) Annual Depreciation Interest Payment (10%)	0.0	20	1.7	5.5	21.9	5.5	5.5	5.5 18.8	5.5 17.8	5.5	5.5 15.8	5.5	5.5	5.5 12.7	211	5.5	5.5 9.7	8.7	9.9 16.2 15.	9.9 9.13.13.13.	9.9 9.9 13.8 12.4	9.9	5.6	8 2	6.8	9.9	
Net Income	0.0	(2,3)	(10.4)	(27.7)	(29.8)	(26.7)	(6.25)	(17.9)	(15.2)	(12.2)	(8.8)	(2:0)	(0.8)	3.8	7.7	12.0 1	16.6 2	1.7.12	14.4 20.	20.6 27.8	35.8	5.44.5	54.2	64.9	76.6	89.3	
Balmer Shert Cash Capital Investment Loss Acoun. Depreciation Land Total Assets		(2.0) 203.6 0.2 0.0 201.4	(10.7) 869.8 2 1.9 0.0 887.2 2	(33.9) 2,105.1 2 7.4 128.8 2,192.6 2	(62.2) 2,105.1 2 12.9 128.8 2,158.9 2	(93.6) 2,105.1 2 18.4 128.8 2,122.0 2	(121.1) (143.7) 2,105.1 2,105.1 23.8 29.3 128.8 128.8 2,089.0 2,060.9	(143.7) 2,105.1 29.3 128.8 2,060.9) (163.6) 2,105.1 34.8 1 128.8 1 2,035.5	(180.4) 2,105.1 2,05.1 128.8 2,013.2	(193.9) (2,105.1 2 45.8 128.8 1,994.2 1	(203.6) 2,105.1 2 51.3 128.8 1,979.1 1	(209.1) (2,105.1 2, 56.8 128.8 1,968.1 1,	(209.9) (2 2,105.1 2,1 62.3 128.8 1	(206.9) (1 2,105.1 2.1 67.7 128.8 1 1,959.9 1,5	(199.6) (18 2,105.1 2,10 73.2 7 128.8 12 1,961.1 1,96	(187.6) (17 2,105.1 2,10 78.7 8 128.8 12 1,967.6 1,97	(170.5) (15 2,105.1 2,96 84.2 9 128.8 12 1,979.2 2,84	(156.5) (136.2) 2,966.2 2,966.2 94.1 103.9 128.8 128.8 2,844.5 2,854.9	(2) (112.6) 5.2 2,966.2 6.9 113.8 8.8 128.8 6.9 2,868.6	.6) (81.1) 52 2,9662 1.8 123.6 1.8 128.8 1.6 2,890.3	(40.8) 2.966.2 5.133.5 8.128.8 3.2.920.8	2966.2 143.3 128.8 2,960.9	69.9 2,966.2 153.2 128.8 3,011.7	145.2 2.966.2 163.0 128.8 3,075.2	2323 2,966.2 172.9 128.8 3,154.4	
Loan Balance Grant from GSL Reserved Pund Total Liab. & Capital		20.4 (2.3) 201.4	87.0 782.8 2 (12.6) 857.2 2	222.5 2,010.5 2,010.5 2,192.6	218.5 2,010.5 (70.1) 2.158.9	208.4 2,010.5 (96.9) 2,122.0	198.2 2,010.5 2 (119.7) 2,089.0 2	188.0 2,010.5 (137.7) 2,060.9	177.9 2,010.5 1 (152.9) 2,035.5	167.7 2,010.5 2 (165.1) 2,013.2 1	157.6 2.010.5 2.010.5 (173.9) 1,994.2	147.4 2,010.5 2 (178.9) (1,979.1 1	137.3 2,010.5 2, (179.7) (1,968.1 1,	127.1 2,010.5 24 (175.9) (1 1,961.7 1.5	117.0 1 2,010.5 2,0 (168.2) (1 1,959.3 1,5	106.8 2,010.5 2,010.5 1,961.1 1,961.1	96.7 2,010.5 2,010.5 1,967.6 1,967.6	86.5 16 2,010.5 2,78 (117.9) (10 1,979.2 2,84	1625 1523- 2,785.5 2,785.5 (103.5) (82.9) 2,844.5 2,854.9	23 138.2 5.5 2,785.5 5.9 (55.1) 5.9 2,868.6	1242 15 27855 11) (194) 16 28903	2 110.1 5 2.785.5 6) 25.1 3 2,920.8	2,86.5 2,985.5 2,985.5 2,980.9	82.0 2,785.5 144.2 3,011.7	68.8 2,785.5 220.8 3,075.2	28.7 2,785.5 310.2 3,154.4	

Table A18.10.7

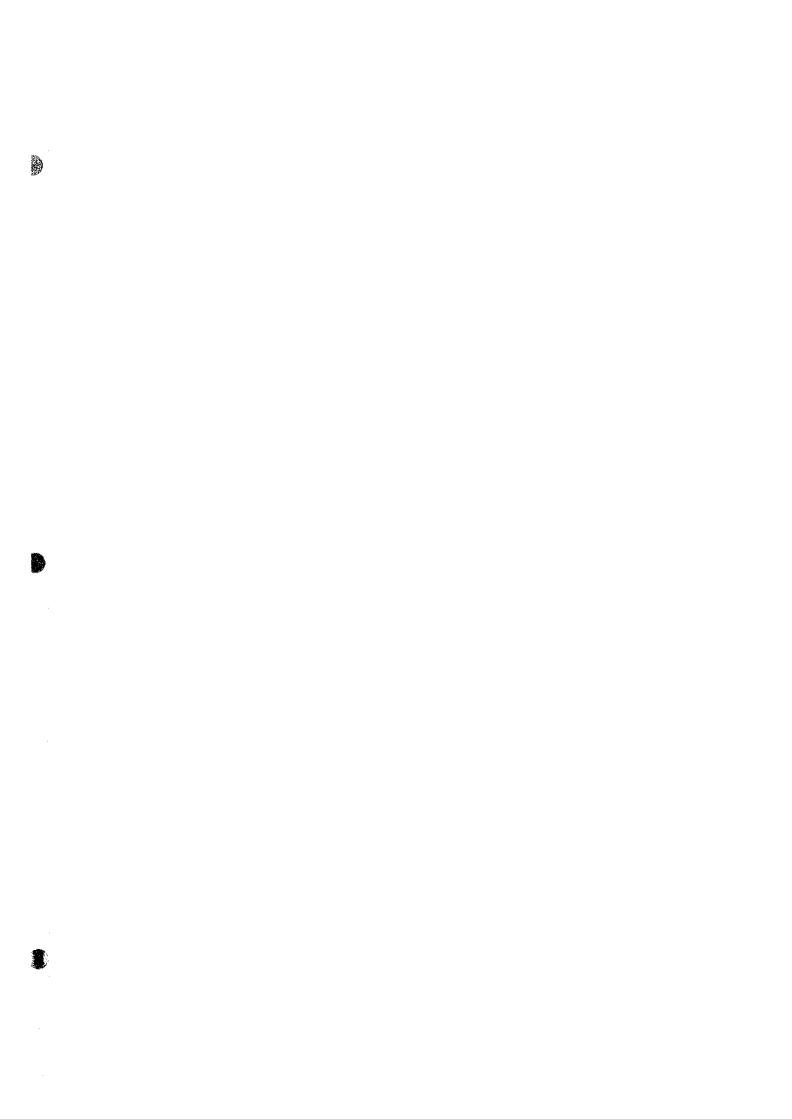
	Pro Fe Kandy	Sewel	Pro Forma Financial Statements (M Rs.) Kandy Sewerage Project (F/S)	al Stati roject	ements (Æ/S)	, (M)	(S)		U .1	Case C-2 1.0 % tar	if	90 % sunsidy increase in re	sidy in real	terms										
Year	2027	2028	2029	7030	2031	2032	2033	2034	2035	2036	2037 2	2038 2	2039 2	2040 20	2041 24	2042 2	2043 2	2044 2	2045 2	2046 2	2047	2048	2049	2059
Fund Flow Table Annual Sales Subsidy from GSL Loan (10% Interest)	265.7 0.0 0.0	295.1 0.0 0.0	327.9 0.0 0.0	364.3 0.0 0.0	404.7 0.0 0.0	449.7 0.0 0.0	499.6 3,237.4 359.7	0.0 0.0 0.0	616.6 0.0 0.0	685.1 0.0 0.0	761.1 0.0 0.0	845.6 0.0 0.0	939.5 1; 0.0 0.0	1,043.8 1,1	0.0	0.0	431.3 1, 0.0 0.0	0.0 0.0 0.0	0.0	1,962.8 2, 0.0 0.0	2,180.7 2 0.0 13 0.0 1	2,422.8 13,523.4 1,502.6	2,691.7 0.0 0.0	2,990.5 0.0 0.0
Capital Investment Inserest Payment (10%) Annual Loan Repayment O & M Overhead (10 % of Sales)	0.0 5.5 3.9 147.5 26.6	0.0 5.1 3.9 162.2 29.5	0.0 4.7 3.9 178.4 32.8	0.0 4.3 3.9 196.3 36.4	0.0 3.9 3.9 215.9 40.5	0.0 3.5 3.9 237.5 45.0	3,597.1 39.1 3.9 261.2 50.0	0.0 38.7 3.9 287.4 55.5	0.0 36.7 20.3 316.1 61.7	0.0 34.7 20.3 347.7 68.5	0.0 32.6 20.3 382.5 76.1	0.0 30.6 20.3 420.7 84.6	0.0 28.6 20.3 462.8 93.9	0.0 26.6 20.3 509.1	0.0 24.5 20.3 560.0	0.0 22.9 16.4 616.0	0.0 21.3 16.4 677.6 143.1	0.0 19.6 16.4 745.3 159.0	0.0 18.0 16.4 819.9	0.0 16.4 16.4 901.9	0.0 15 14.7 16.4 992.1 1	15,026.0 163.3 16.4 1,091.3 1 242.3	0.0 161.7 16.4 200.4 269.2	0.0 153.2 84.7 1,320.4 299.0
Net Cash Inflow	108.8	123.9	140.9	159.8	181.0	204.7	195.3	225.0	243.6	282.5	325.8	374.0	427.8	87.9	554.8	633.1	716.1	6.808	912.5 1,	1,028.3 1,	1,157.6	1,151.8 1	1,313.3	1,432.2
Worlding Cepital Burden Cumulative cash deficit 10% intenst on above Cum, intenst Payment	341.1 34.1 (212.4)	465.0 46.5 (165.9)	605.8 60.6 (105.3)	765.7 76.6 (28.7)	7.54. 7.7.8. 6.39	1,151.4 115.1 181.1	1,346.7 134.7 315.8	1,571.8 1 157.2 472.9	1,815.3 2 181.5 654.5	2,097.8 2 209.8 864.2 1	2,423.5 2, 242.4 1,106.6 1,	2,797.6 3, 279.8 1,386.4 1,	322.5.4 3. 322.5 1,708.9 2.	3,713.3 4,2 371.3 4 2,080.2 2,5	4,268.1 4,5 426.8 2,507.0 2,5	4,901.2 5,4901.1 5,2997.1 3,3	5,617.3 6, 561.7 3,558.9 4,	6,426.2 7, 642.6 4,201.5 4,	7,338.7 8, 733.9 4,935.4 5,	8367.0 9, 836.7 5,772.1 6,	9,524.6 10 952.5 1 6,724.5 7	10,676.4 11 1,067.6 1 7,792.2 8	11,989.7 11,199.0 1	13,421.8 1,342.2 10,333.3
Income Statement Annual Sales	265.7	295.1	327.9	364.3	404.7	449.7	499.6	555.0	616.6	685.1	761.1	845.6	939.5 1,	1,043.8 1,1	1,159.6	1,288.3 1,	1,431.3 1,	1,590.2 1.	1,766.7	1,962.8 2	2,180.7	2,422.8	2.691.7	2,990.5
O & M Overhead (10 % of Sales) Annual Depreciation Interest Payment (10%)	147.5 0.0 9.9 5.5	162.2 0.0 9.9 5.1	178.4 0.0 9.9 4.7	1963 0.0 9.9 4.3	215.9 0.0 9.9 3.9	237.5 0.0 9.9 3.5	261.2 0.0 28.1 39.1	287.4 0.0 28.1 38.7	316.1 0.0 28.1 36.7	347.7 0.0 28.1 34.7	382.5 0.0 28.1 32.6	420.7 0.0 28.1 30.6	462.8 0.0 28.1 28.6	509.1 0.0 28.1 26.6	28.1 28.1 24.5	616.0 0.0 28.1 22.9	677.6 0.0 28.1 21.3	745.3 0.0 28.1 19.6	819.9 0.0 28.1 18.0	901.9 0.0 28.1 16.4	992.1 1 0.0 28.1 14.7	1,091.3 0.0 104.3 163.3	0.0 104.3 164.3	1320.4 0.0 104.3 153.2
Net Income	102.9	118.0	134.9	153.9	175.1	198.8	171.1	200.9	235.8	274.6	317.9	366.2	420.0	480.0	547.0	621.4	704.4	797.2	1 8.009	1,016.5 1.	1,145.8	1,063.9	1,225.3	1,412.5
Balance Sheet Cash Capital Investment Less Accum. Depreciation Land Total Assets	341.1 2.966.2 1.82.8 1.28.8 3,253.3	465.0 2,966.2 192.6 128.8 3,367.4	605.8 2,966.2 202.5 128.8 3,498.4	765.7 2,966.2 212.3 128.8 3,648.4	946.7 2,966.2 222.2 128.8 3,819.5	1,151.4 2,966.2 232.0 128.8 4,014.4	1,346.7 6,563.3 260.1 128.8 7,778.7	1,571.8 6,563.3 288.2 128.8 7,975.7	1,8153 6,563.3 316.3 128.8 8,191.2	2,097.8 2 6,563.3 6 344.4 128.8 8,445.5 8	2,423.5 2 6,563.3 6 372.5 128.8 8,743.2 9	2,797.6 3, 6,563.3 6 400.6 128.8 9,089.1 9	3,225.4 3, 6,563.3 6, 428.7 128.8 9,488.9 9,	3,713.3 4,5 6,563.3 6,4 456.8 128.8 9,948.6 10,	4,268.1 4, 6,563.3 6, 484.9 128.8 10,475.4 11,	4,901.2 S. 6,563.3 G. 513.0 128.8 11,080.4 11,	5,617.3 6, 6,563.3 6, 541.1 128.8 11,768.4 12	6,426.2 7, 6,563.3 6 569.2 128.8 12,549.2 13	7,338.7 8 6,563.3 6 597.2 128.8 13,433.6 14	8,367,0 9, 6,563,3 6 625,3 128,8 14,433,8 15	9,524.6 10 6,563.3 21 653.4 128.8 15,563.3 31	10,676.4 11 21,589.3 2 757.7 128.8 31,636.9 33	11,989.7 II 21,589.3 2 862.0 128.8 32,845.8 3	13,421.8 21,589.3 966.3 128.8 34,173.7
Loan Balance Grant from GSL Reserved Fund Total Liab. & Capital	54.8 2,785.5 413.0 3,253.3	50.9 2,785.5 531.0 3,367.4	47.0 2,785.5 665.9 3,498.4	43.1 2,785.5 819.8 3,648.4	39.1 2,785.5 994.9 3,819.5	35.2 2,785.5 1,193.7 4,014.4	391.0 6,022.9 1,364.8 7,778.7	387.1 6,022.9 1,565.7 7,975.7	366.8 6,022.9 1,801.4 8,191.2	346.6 6,022.9 2,076.0 8,445.5	326.3 6,022.9 6 2,394.0 2 8,743.2 9	306.1 6.022.9 6 2,760.1 3 9,089.1 9	285.8 6,022.9 6 3,180.1 3, 9,488.9 9	265.5 6,022.9 6,0 3,660.2 4,0 9,948.6 10,0	245.3 6,022.9 6, 4,207.2 4, 10,475.4 11,	228.9 6,022.9 6, 4,828.5 5, 11,080.4 11,	212.6 6,022.9 6, 5,532.9 6, 11,768.4 12,	196.2 6,022.9 6,330.1 7,	179.9 6,022.9 7,230.9 13,433.6	163.5 6,022.9 8,247.4 9,14,433.8	147.2 6.022.9 9.599.2 15,563.3	1,633,4 19,546,4 10,457,1 31,636,9 33	1,617,1 19,546,4 11,682,4 32,845.8	1,532.4 19,546.4 13,094.9 34,173.7

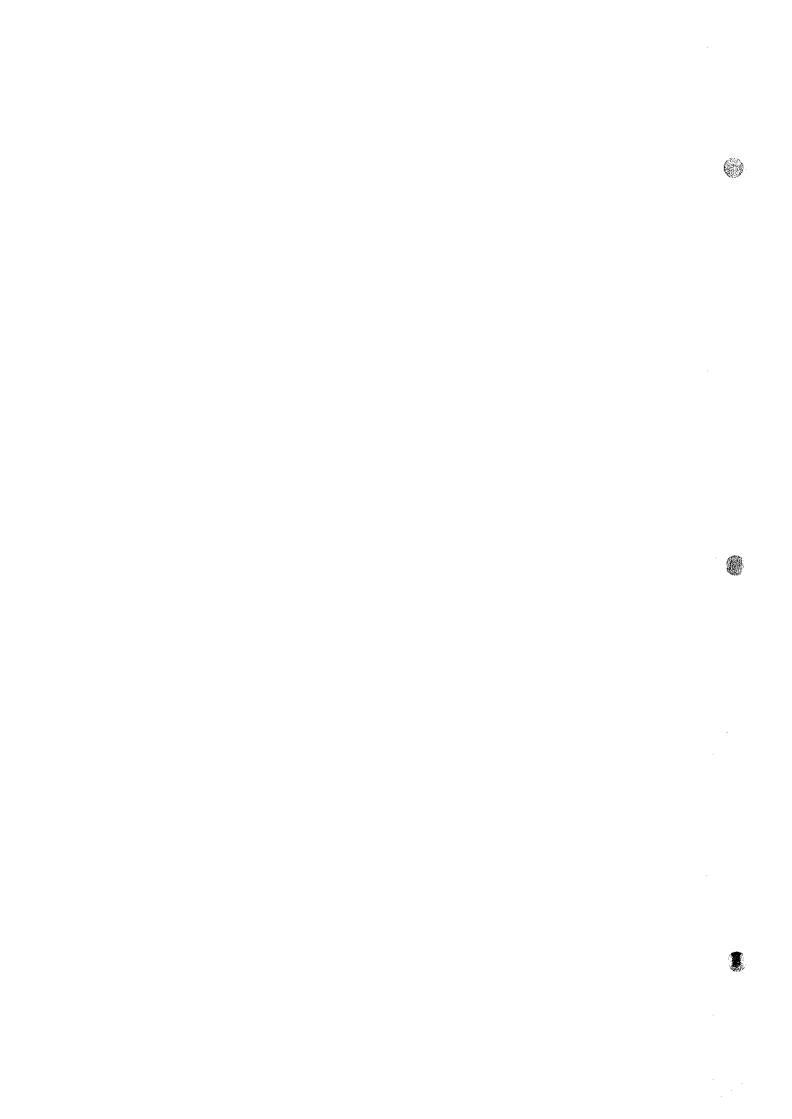
Table A18.10.10 Calculation of FIRR Kandy Sewerage Project (F/S) Case C-2

- [٧'n	lame	71	ariff	Ι	Revenue	<u> </u>	Investment	10% of Inv.	O&M	ОН	(1998 Price) Net Inflow	FIRR
	Dom	Non-Dom	Dom	Non-Dom	Dom	Non-Dom	Total	mvesiment	10/0 01 1114.	COCIVI	<u> </u>	1101 IIIIOW	111(1)
_	cum/d	cum/d	Rs./cum	Rs./cum	M Rs./Y	M Rs./Y	M Rs./Y	M Rs.	M Rs.	M Rs.	M Rs.	M Rs.	
)													
								153.0	15.3			(15.30)	
1								455.0	45.5			(45.50)	
1		.,						847.0	84.7			(84.70)	
十	404	1102	2.00	10.00	0.3	4.0	4.3		0.0	4.09	0.43	0.23	
5	829	2259	2.02	10.10	0.6	8.3	8.9		0.0	5.82	0.89	3.12	
5 -	1273	3469	2.04	10.20	0.9	12.9	13.9		0.0	7.56	1.39	6.30	
7	1737	4736	2.06	10.30	1.3	17.8	19.1		0.0	9.30	1.91	9.82	
3	1779	4850	2.08	10.41	1.4	18.4	19.8		0.0	9.30	1.98	10.48	
	1822	4966	2.10	10.51	1.4	19.1	20.4	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.0	9.30	2.04	11.15	
	1866	5086	2.12	10.62	1.4	19.7	21.2		0.0	9.30	2.12	11.86	
L	1907	5198	2.14	10.72	1.5	20.3	21.8		0.0	9.30	2.18	12.54	
2	1949	5312	2.17	10.83	1.5	21.0	22.5		0.0	9.30	2.25	13.24	
4	1988	5420	2.19	10.94	1.6	21.6	23.2	· · · · · · · · · · · · · · · · · · ·	0.0	9.30	2.32	13.93	
1	1988	5420	2.21	11.05	1.6	21.9	23.5		0.0	9.30	2.35	14.16	
5	1988	5420		11.16	1.6	22.1	23.7		0.0	9.30	2.37	14.39	
5	1988	5420	2.25	11.27	1.6	22.3	23.9		0.0	9,30	2.39	14.63	· · · · · · · · · · · · · · · · · · ·
<u>7</u>	1988	5420	2.28	11.38	1.7	22.5	24.2	120.0	0.0	9.30	2.42	14.87	
3	1988	5420		11.49	1.7	22.7	24.4	128.0	12.8 0.0	9.30	2.44	2.31 15.36	
9	1988 1988	5420 5420		11.61 11.73	1.7	23.0 23.2	24.7		0.0	9.30	2.47	15.60	
	1988	5420 5420		11.73	1.7	23.4	25.1	·	0.0	9.30	2.49	15.85	
1 2	1988	5420	<u> </u>	11.96	1.7	23.7	25.4		0.0	9.30	2.54	16.10	
2 -	1988	5420	1	12.08	1.8	23.9	25.7		0.0	9.30	2.57	16.36	
4	1988	5420		12.20	1.8	24.1	25.9		0.0	9.30	2.59	16.61	
5	1988	5420		12.32	1.8	24.4	26.2		0.0	9.30	2.62	16.87	
6	1988	5420		12.45	1.8	24.6	26.4		0.0	9.30	2.64	17.13	
7	1988	5420	1	12.57	1.8	24.9	26.7		0.0	9.30	2.67	17.40	
8	1988	5420		12.70	1.8	25.1	27.0	 	0.0	9.30	2.70	17.67	
9	1988	5420		12.82	1.9	25.4	27.2		0.0	9.30	2.72	17.94	
0	1988	5420		12.95	1.9	25.6	27.5		0.0	9.30	2.75	18.21	
1	1988	5420		13.08	1.9	25.9	27.8		0.0	9.30	2.78	18.48	
2	1988	5420	2.64	13.21	1.9	26.1	28.1		0.0	9.30	2.81	18.76	
3	1988	5420	2.67	13.35	1.9	26.4	28.3	128.0	12.8	9.30	2.83	6.24	
4	1988	5420	2.70	13.48	2.0	26.7	28.6		0.0	9.30.	2,86	19.32	
5	1988	5420		13.61	2.0	26.9	28.9		0.0	9.30	2.89	19.61	
6	1988	5420		13.75	2.0	27.2	29.2		0.0	9.30	2.92	19.90	
7	1988	5420		13.89	2.0	27.5	29.5		0.0	9.30	2.95	20.19	
8	1988	5420		14.03	2.0	27.7	29.8	<u> </u>	0.0	9.30	2.98	20.49	
9	1988	5420		14.17	2.1	28.0	30.1		0.0	9.30	3.01	20.78	
<u>0</u>	1988	5420		14.31	2.1	28.3	30.4	ļ	0.0	9.30	3.04	21.09	
1	1988	5420	-1	14.45	2.1	28.6	30.7		0.0	9.30	3.07	21.39	
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2 3 4 5 6 7 8 9	1988 1988 1988 1988 1988 1988 1988 1988	5420 5420 5420 5420 5420 5420 5420 5420	2.92 2.95 0 2.98 0 3.01 0 3.04 0 3.07 3.10 0 3.13	14.60 14.74 14.89 15.04 15.19 15.34 15.49 15.65	2.1 2.1 2.2 2.2 2.2	28.9 29.2 29.5 29.7 30.0 30.3 30.7 31.0	31.0 31.3 31.6 31.9 32.3 32.6 32.9 33.2	128.0	0.0 0.0 0.0 0.0 0.0 0.0 12.8 0.0	9.30 9.30 9.30 9.30 9.30 9.30 9.30 9.30	3.10 3.13 3.16 3.19 3.23 3.26 3.29 3.32 3.36		21.39 21.70 22.01 22.32 22.64 22.95 23.28 10.80 23.93 49.56

- Note: 1.1 % annual tariff increase in real terms.

 2. Unit tariff of Non Domestic User is 5 times of Domestic User.
 - 3. 90 % subsidy for capital investment.
 - 4. Overhead is assumed to be 10% of Revenue.
 - 5. Investment Cost in 2050 is assumed salvege value.





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