

Appendix 6 Amount of Investment & Expense of Each Cases

**Annual Investment** (Case 2 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	86.3	608.5	165.4	52.0	912.2	912.2
1983	62.0	742.4	279.4	57.8	1141.6	2053.8
1984	58.2	706.8	206.1	64.4	1035.5	3089.3
1985	102.0	719.9	190.2	71.7	1083.8	4173.1
1986	59.9	755.9	125.5	79.5	1020.8	5193.9
1987	25.9	850.5	169.9	88.6	1134.9	6328.8
1988	161.6	1051.3	396.5	98.6	1708.0	8036.8
1989	141.5	1085.7	257.9	109.7	1594.8	9631.6
1990	48.9	1101.2	179.6	121.9	1451.6	11083.2
1991	580.1	1304.9	368.1	135.8	2388.9	13472.1
1992	874.2	1647.9	751.4	151.0	3424.5	16896.6
1993	872.7	1809.2	728.5	168.2	3578.6	20475.2
1994	91.3	2068.5	486.3	186.7	2832.8	23308.0
1995	810.1	2212.7	730.0	208.2	3961.0	27269.0
1996	872.1	2484.0	824.5	231.3	4411.9	31680.9
1997	1215.0	3196.8	1219.2	257.2	5888.2	37569.1
1998	288.9	3184.0	711.6	286.4	4470.9	42040.0
1999	441.8	3872.6	1365.7	318.3	5998.4	48038.4
2000	348.2	4380.7	1077.2	353.6	6159.7	54198.1
2001	469.8	5141.9	1635.8	393.9	7641.4	61839.5
Total	7610.5	38925.4	11868.8	3434.8	61839.5	

(Case 2 )

**Present Value of Annual Investment**

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	79.6	561.0	152.5	47.9	841.0	841.0
1983	52.6	630.3	237.2	49.1	969.2	1810.2
1984	45.6	553.4	161.4	50.4	810.8	2621.0
1985	73.6	519.8	137.3	51.8	782.5	3403.5
1986	39.8	502.7	83.5	52.9	678.9	4082.4
1987	15.9	521.4	104.1	54.3	695.7	4778.1
1988	91.3	594.0	224.0	55.7	965.0	5743.1
1989	73.7	565.6	134.4	57.2	830.9	6574.0
1990	23.5	528.6	F 2	58.5	696.8	7270.8
1991	256.4	576.8	162.7	60.0	1055.9	8326.7
1992	356.7	672.3	306.6	61.6	1397.2	9723.9
1993	328.1	680.3	273.9	63.2	1345.5	11069.4
1994	31.6	715.7	168.3	64.6	980.2	12049.6
1995	258.4	705.9	232.9	66.4	1263.6	13313.2
1996	256.4	730.3	242.4	68.0	1297.1	14610.3
1997	329.3	866.3	330.4	69.7	1595.7	16206.0
1998	72.2	796.0	177.9	71.6	1117.7	17323.7
1999	101.6	890.7	314.1	73.2	1379.6	18703.3
2000	73.8	928.7	228.4	75.0	1305.9	20009.2
2001	92.1	1007.8	320.6	77.2	1497.7	21506.9
Total	2652.2	13547.6	4078.8	1228.3	21506.9	

# Annual expense

(Case 2 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & Distribu. equipment losses	Total	
1982	11.2	95.2	25.0	11.5	48.9	191.8
1983	19.3	211.4	67.3	24.3	56.1	378.4
1984	26.8	322.0	98.4	38.6	66.7	552.5
1985	40.1	434.7	127.2	54.4	79.8	736.2
1986	47.9	553.0	146.1	72.0	91.4	910.4
1987	51.2	686.1	171.8	91.7	108.6	1109.4
1988	72.2	850.6	231.8	113.5	120.3	1388.4
1989	90.6	1020.5	270.8	137.8	131.6	1651.3
1990	96.9	1192.9	297.9	164.8	156.4	1908.9
1991	172.3	1397.1	353.6	194.8	183.7	2301.5
1992	285.9	1655.0	467.2	228.3	204.1	2840.5
1993	399.2	1938.1	577.4	265.5	232.2	3412.4
1994	411.1	2261.8	650.9	306.8	261.4	3892.0
1995	516.3	2608.1	761.3	352.9	301.9	4540.5
1996	629.6	2996.9	885.9	404.1	342.1	5258.6
1997	787.4	3497.2	1070.3	461.1	370.8	6186.8
1998	825.0	3995.5	1177.9	524.5	436.3	6959.2
1999	882.3	4601.5	1384.4	595.0	493.9	7957.1
2000	927.6	5287.1	1547.2	673.3	552.8	8988.0
2001	988.6	6091.8	1794.6	760.5	618.9	10254.4
Total	7281.5	41696.5	12107.0	5475.4	4857.9	71418.3

(Case 2 )

**Present Value of Annual Expense**

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	10.3	87.8	23.1	10.6	45.1	176.9
1983	16.4	179.5	57.1	20.6	47.8	321.4
1984	21.0	252.1	77.0	30.2	52.2	432.5
1985	29.0	313.9	91.8	39.3	56.8	530.8
1986	31.9	367.7	97.2	47.9	60.7	605.4
1987	31.4	420.6	105.3	56.2	66.5	680.0
1988	40.8	480.6	131.0	64.1	67.9	784.4
1989	47.2	531.7	141.1	71.8	68.5	860.3
1990	46.5	572.6	143.0	79.1	75.1	916.3
1991	76.2	617.5	156.3	86.1	81.2	1017.3
1992	116.6	675.2	190.6	93.1	83.3	1158.8
1993	150.1	728.7	217.1	99.8	87.3	1283.0
1994	142.2	782.6	225.2	106.2	90.6	1346.8
1995	164.7	832.0	242.9	112.6	96.3	1448.5
1996	185.1	881.1	260.5	118.8	100.5	1546.0
1997	213.4	947.7	290.1	125.0	100.5	1676.7
1998	206.3	998.9	294.5	131.1	109.0	1739.8
1999	202.9	1058.3	318.4	136.9	113.6	1830.1
2000	196.7	1120.9	328.0	142.7	117.3	1905.6
2001	193.8	1194.0	351.7	149.1	121.0	2009.6
Total	2122.5	13043.4	3741.9	1721.2	1641.2	22270.2

# Annual Investment (Case 3)

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	101.9	608.5	165.4	52.0	927.8	927.8
1983	62.0	742.4	279.4	57.8	1141.6	2069.4
1984	83.3	689.2	193.4	64.4	1030.3	3099.7
1985	126.4	709.9	214.6	71.7	1122.6	4222.3
1986	130.9	757.5	210.6	79.5	1178.5	5400.8
1987	25.9	843.5	158.6	88.6	1116.6	6517.4
1988	80.0	999.1	330.9	98.6	1508.6	8026.0
1989	121.9	1045.0	240.8	109.7	1517.4	9543.4
1990	53.1	1185.8	320.0	121.9	1680.8	11224.2
1991	643.6	1359.1	546.5	135.8	2685.0	13909.2
1992	1014.6	1556.7	766.4	151.0	3488.7	17397.9
1993	788.4	1801.0	957.6	168.2	3715.2	21113.1
1994	138.6	2026.5	617.4	186.7	2969.2	24082.3
1995	852.2	2219.6	1076.8	208.2	4356.8	28439.1
1996	1151.8	2499.6	1394.3	231.3	5277.0	33716.1
1997	1244.5	2889.2	1341.0	257.2	5731.9	39448.0
1998	472.4	3339.0	1130.7	286.4	5228.5	44676.5
1999	477.7	3900.1	1576.7	318.3	6272.8	50949.3
2000	544.5	4330.6	1207.1	353.6	6435.8	57385.1
2001	507.9	4659.5	1730.4	393.9	7291.7	64676.8
Total	8621.6	38161.8	14458.6	3434.8	64676.8	

(Case 3 )

## Present Value of Annual Investment

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	94.0	561.0	152.5	47.9	855.4	855.4
1983	52.6	630.3	237.2	49.1	969.2	1824.6
1984	65.2	539.6	151.4	50.4	806.6	2631.2
1985	91.3	512.5	154.9	51.8	810.5	3441.7
1986	87.0	503.7	140.0	52.9	783.6	4225.3
1987	15.9	517.1	97.2	54.3	684.5	4909.8
1988	45.2	564.5	187.0	55.7	852.4	5762.2
1989	63.5	544.4	125.5	57.2	790.6	6552.8
1990	25.5	569.2	153.6	58.5	806.8	7359.6
1991	284.5	600.7	241.6	60.0	1186.8	8546.4
1992	414.0	635.1	312.7	61.6	1423.4	9969.8
1993	296.4	677.2	360.1	63.2	1396.9	11366.7
1994	48.0	701.2	213.6	64.6	1027.4	12394.1
1995	271.9	708.1	343.5	66.4	1389.9	13784.0
1996	338.6	734.9	409.9	68.0	1551.4	15335.4
1997	337.3	783.0	363.4	69.7	1553.4	16888.8
1998	118.1	834.8	282.7	71.6	1307.2	18196.0
1999	109.9	897.0	362.6	73.2	1442.7	19638.7
2000	115.4	918.1	255.9	75.0	1364.4	21003.1
2001	99.5	913.3	339.2	77.2	1429.2	22432.3
Total	2973.8	13345.7	4884.5	1228.3	22432.3	

(Case 3 )

## Annual expense

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	13.2	95.2	25.0	11.5	48.9	193.8
1983	21.3	211.4	67.3	24.3	56.1	380.4
1984	32.1	319.3	96.5	38.6	66.7	553.2
1985	48.5	430.4	128.9	54.4	76.3	738.5
1986	65.5	548.9	160.8	72.0	88.8	936.0
1987	68.9	680.9	184.8	91.7	105.8	1132.1
1988	79.3	837.3	234.8	113.5	119.4	1384.3
1989	95.1	1000.8	271.2	137.8	135.6	1640.5
1990	102.0	1186.4	319.6	164.8	152.9	1925.7
1991	185.6	1399.1	402.2	194.8	174.8	2356.5
1992	317.4	1642.7	518.1	228.3	199.5	2906.0
1993	419.8	1924.6	662.9	265.5	219.2	3492.0
1994	437.8	2241.7	756.2	306.8	252.9	3995.4
1995	548.5	2589.1	919.1	352.9	277.6	4687.2
1996	698.2	2980.3	1129.9	404.1	306.6	5519.1
1997	859.8	3432.5	1332.6	461.1	337.1	6423.1
1998	921.2	3955.0	1503.6	524.5	375.2	7279.5
1999	983.2	4565.4	1742.0	595.0	409.7	8295.3
2000	1054.0	5243.1	1924.5	673.3	455.0	9349.9
2001	1119.9	5972.3	2186.1	760.5	521.1	10559.9
Total	8071.3	41256.4	14566.1	5475.4	4379.2	73748.4

(Case 3 )

# Present Value of Annual Expense

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	12.2	87.8	23.1	10.6	45.1	178.8
1983	18.1	179.5	57.1	20.6	47.8	323.1
1984	25.1	250.0	75.6	30.2	52.2	433.1
1985	35.0	310.7	93.1	39.3	55.0	533.1
1986	43.6	365.0	106.9	47.9	59.0	622.4
1987	42.2	417.4	113.3	56.2	64.8	693.9
1988	44.8	473.1	132.7	64.1	67.3	782.0
1989	49.5	521.4	141.3	71.8	70.5	854.5
1990	49.0	569.5	153.4	79.1	73.4	924.4
1991	82.0	618.4	177.8	86.1	77.2	1041.5
1992	129.5	670.2	211.4	93.1	81.3	1185.5
1993	157.8	723.6	249.3	99.8	82.5	1313.0
1994	151.5	775.6	261.6	106.2	87.6	1382.5
1995	175.0	825.9	293.2	112.6	88.7	1495.4
1996	205.3	876.2	332.2	118.8	90.2	1622.7
1997	233.0	930.2	361.1	125.0	91.3	1740.6
1998	230.3	988.8	375.9	131.1	93.7	1819.8
1999	226.1	1050.0	400.7	136.9	94.3	1908.0
2000	223.4	1111.5	408.0	142.7	96.4	1982.0
2001	219.5	1170.6	428.5	149.1	101.9	2069.6
Total	2352.9	12915.4	4396.2	1721.2	1520.2	22905.9



# Annual Investment

(Case 4 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	91.8	607.2	165.4	52.0	916.4	916.4
1983	62.0	740.5	275.5	57.8	1135.8	2052.2
1984	58.2	690.9	201.8	64.4	1015.3	3067.5
1985	126.4	716.6	234.0	71.7	1148.7	4216.2
1986	59.9	751.7	127.7	79.5	1018.8	5235.0
1987	102.5	847.1	261.7	88.6	1299.9	6534.9
1988	79.0	987.4	302.7	98.6	1467.7	8002.6
1989	211.9	1073.1	296.4	109.7	1691.1	9693.7
1990	48.9	1088.6	182.6	121.9	1442.0	11135.7
1991	580.1	1287.8	371.4	135.8	2375.1	13510.8
1992	806.5	1655.9	803.6	151.0	3417.0	16927.8
1993	863.3	1758.3	701.5	168.2	3491.3	20419.1
1994	184.9	2089.7	687.1	186.7	3148.4	23567.5
1995	774.1	2157.8	795.2	208.2	3935.3	27502.8
1996	947.3	2550.7	1120.7	231.3	4850.0	32352.8
1997	1144.6	2882.6	982.9	257.2	5267.3	37620.1
1998	387.6	3251.8	991.2	286.4	4917.0	42537.1
1999	640.0	3879.5	1718.5	318.3	6556.3	49093.4
2000	831.1	4305.4	1559.8	353.6	7049.9	56143.3
2001	386.7	5093.0	1700.7	393.9	7574.3	63717.6
Total	8386.8	38415.6	13480.4	3434.8	63717.6	

(Case 4 )

## Present Value of Annual Investment

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	84.6	559.8	152.5	47.9	844.8	844.8
1983	52.6	628.7	233.9	49.1	964.3	1809.1
1984	45.6	541.0	158.0	50.4	795.0	2604.1
1985	91.3	517.4	168.9	51.8	829.4	3433.5
1986	39.8	499.9	84.9	52.9	677.5	4111.0
1987	62.8	519.3	160.4	54.3	796.8	4907.8
1988	44.6	557.9	171.0	55.7	829.2	5737.0
1989	110.4	559.1	154.4	57.2	881.1	6618.1
1990	23.5	522.5	87.6	58.5	692.1	7310.2
1991	256.4	569.2	164.2	60.0	1049.8	8360.0
1992	329.1	675.6	327.9	61.6	1394.2	9754.2
1993	324.6	661.1	263.8	63.2	1312.7	11066.9
1994	64.0	723.0	237.7	64.6	1089.3	12156.2
1995	246.9	688.3	253.7	66.4	1255.3	13411.5
1996	278.5	749.9	329.5	68.0	1425.9	14837.4
1997	310.2	781.2	266.4	69.7	1427.5	16264.9
1998	96.9	813.0	247.8	71.6	1229.3	17494.2
1999	147.2	892.3	395.3	73.2	1508.0	19002.2
2000	176.2	912.7	330.7	75.0	1494.6	20496.8
2001	75.8	998.2	333.3	77.2	1484.5	21981.3
Total	2861.0	13370.1	4521.9	1228.3	21981.3	

# Annual expense

(Case 4 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	11.9	95.0	25.0	11.5	48.9	192.3
1983	20.0	210.9	66.7	24.3	56.1	378.0
1984	27.5	319.0	97.2	38.6	66.7	549.0
1985	44.0	431.2	132.6	54.4	77.2	739.4
1986	51.7	548.8	151.9	72.0	89.4	913.8
1987	65.1	681.4	191.4	91.7	104.0	1133.6
1988	75.3	835.9	237.2	113.5	119.5	1381.4
1989	102.8	1003.9	282.0	137.8	131.9	1658.4
1990	109.2	1174.2	309.6	164.8	154.9	1912.7
1991	184.5	1375.8	365.8	194.8	183.3	2304.2
1992	289.3	1634.9	487.3	228.3	199.7	2839.5
1993	401.5	1910.1	593.4	265.5	225.9	3396.4
1994	425.5	2237.1	697.2	306.8	248.2	3914.8
1995	526.0	2574.8	817.5	352.9	288.1	4559.3
1996	649.1	2974.0	986.9	404.1	313.1	5327.2
1997	797.8	3425.1	1135.5	461.1	358.0	6177.5
1998	848.1	3934.1	1285.4	524.5	405.9	6998.0
1999	931.3	4541.2	1545.2	595.0	455.1	8067.8
2000	1039.2	5215.0	1781.1	673.3	518.4	9227.0
2001	1089.4	6012.0	2038.2	760.5	587.1	10487.2
Total	7689.2	41134.4	13227.1	5475.4	4631.4	72157.5

(Case 4 )

**Present Value of Annual Expense**

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	11.0	87.6	23.1	10.6	45.1	177.4
1983	17.0	179.1	56.6	20.6	47.8	321.1
1984	21.5	249.8	76.1	30.2	52.2	429.8
1985	31.8	311.3	95.7	39.3	55.6	533.7
1986	34.4	365.0	101.0	47.9	59.4	607.7
1987	39.9	417.7	117.3	56.2	63.7	694.8
1988	42.5	472.3	134.0	64.1	67.5	780.4
1989	53.6	523.0	146.9	71.8	68.7	864.0
1990	52.4	565.6	148.6	79.1	74.3	918.0
1991	81.5	608.1	161.7	86.1	81.0	1018.4
1992	118.0	667.0	198.8	93.1	81.5	1158.4
1993	151.0	718.2	223.1	99.8	84.8	1276.9
1994	147.2	774.0	241.2	106.2	86.0	1354.6
1995	167.8	821.4	260.8	112.6	91.9	1454.5
1996	190.8	874.4	290.1	118.8	92.0	1566.1
1997	216.2	928.2	307.7	125.0	97.0	1674.1
1998	212.0	983.5	321.4	131.1	101.5	1749.5
1999	214.2	1044.5	355.4	136.9	104.7	1855.7
2000	220.3	1105.6	377.6	142.7	109.9	1956.1
2001	213.5	1178.4	399.5	149.1	114.9	2055.4
Total	2236.6	12872.7	4036.6	1721.2	1579.5	22446.6

# Annual Investment

(Case 5 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	91.8	607.2	165.4	52.0	916.4	916.4
1983	62.0	740.5	275.5	57.8	1135.8	2052.2
1984	58.2	676.5	189.1	64.4	988.2	3040.4
1985	126.4	706.4	209.1	71.7	1113.6	4154.0
1986	130.9	753.7	205.7	79.5	1169.8	5323.8
1987	25.9	830.4	158.6	88.6	1103.5	6427.3
1988	97.4	969.7	321.6	98.6	1487.3	7914.6
1989	141.5	1025.8	234.6	109.7	1511.6	9426.2
1990	69.7	1170.2	317.2	121.9	1679.0	11105.2
1991	617.1	1342.0	517.1	135.8	2612.0	13717.2
1992	1001.0	1573.3	832.9	151.0	3558.2	17275.4
1993	926.2	1766.9	978.3	168.2	3839.6	21115.0
1994	175.8	1989.4	703.8	186.7	3055.7	24170.7
1995	852.2	2187.4	1072.6	208.2	4320.4	28491.1
1996	1131.4	2452.9	1161.1	231.3	4976.7	33467.8
1997	1163.4	2910.2	1269.4	257.2	5600.2	39068.0
1998	437.8	3248.7	1210.1	286.4	5183.0	44251.0
1999	625.9	3789.8	1610.3	318.3	6344.3	50595.3
2000	831.5	4225.7	1591.4	353.6	7002.2	57597.5
2001	325.8	4719.0	1409.6	393.9	6848.3	64445.8
Total	8891.9	37685.7	14433.4	3434.8	64445.8	

(Case 5 )

**Present Value of Annual Investment**

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	84.6	559.8	152.5	47.9	844.8	844.8
1983	52.6	628.7	233.9	49.1	964.3	1809.1
1984	45.6	529.7	148.1	50.4	773.8	2582.9
1985	91.3	510.0	151.0	51.8	804.1	3387.0
1986	87.0	501.2	136.8	52.9	777.9	4164.9
1987	15.9	509.0	97.2	54.3	676.4	4841.3
1988	55.0	547.9	181.7	55.7	840.3	5681.6
1989	73.7	534.4	122.2	57.2	787.5	6469.1
1990	33.5	561.7	152.3	58.5	806.0	7275.1
1991	272.8	593.2	228.6	60.0	1154.6	8429.7
1992	408.4	641.9	339.8	61.6	1451.7	9881.4
1993	348.3	664.4	367.8	63.2	1443.7	11325.1
1994	60.8	688.3	243.5	64.6	1057.2	12382.3
1995	271.9	697.8	342.2	66.4	1378.3	13760.6
1996	332.6	721.2	341.4	68.0	1463.2	15223.8
1997	315.3	788.7	344.0	69.7	1517.7	16741.5
1998	109.5	812.2	302.5	71.6	1295.8	18037.3
1999	144.0	871.7	370.4	73.2	1459.3	19496.6
2000	176.3	895.8	337.4	75.0	1484.5	20981.1
2001	63.9	924.9	276.3	77.2	1342.3	22323.4
Total	3043.0	13182.5	4869.6	1228.3	22323.4	

# Annual expense

(Case 5 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	11.9	95.0	25.0	11.5	48.9	192.3
1983	20.0	210.9	66.7	24.3	56.1	378.0
1984	27.5	316.8	95.3	38.6	66.7	544.9
1985	44.0	427.3	126.9	54.4	76.3	728.9
1986	61.0	545.3	158.0	72.0	88.8	925.1
1987	64.3	675.3	182.0	91.7	105.8	1119.1
1988	77.0	827.0	230.6	113.5	119.4	1367.5
1989	95.4	987.5	266.1	137.8	135.6	1622.4
1990	104.4	1170.7	314.0	164.8	155.7	1909.6
1991	184.6	1380.7	392.2	194.8	179.0	2331.3
1992	314.6	1626.9	518.1	228.3	205.1	2893.0
1993	434.9	1903.4	666.1	265.5	220.8	3490.7
1994	457.8	2214.8	772.5	306.8	251.2	4003.1
1995	568.5	2557.1	934.6	352.9	271.8	4684.9
1996	715.4	2941.0	1110.2	404.1	305.9	5476.6
1997	866.5	3396.4	1302.1	461.1	338.5	6364.6
1998	923.4	3904.9	1485.1	524.5	379.6	7217.5
1999	1004.7	4498.0	1728.6	595.0	422.9	8249.2
2000	1112.7	5159.3	1969.2	673.3	470.3	9384.8
2001	1155.1	5897.8	2182.3	760.5	537.3	10533.0
Total	8247.7	40736.1	14525.6	5475.4	4435.7	73416.5

(Case 5 )

## Present Value of Annual Expense

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	11.0	87.6	23.1	10.6	45.1	177.4
1983	17.0	179.1	56.6	20.6	47.8	321.1
1984	21.5	248.1	74.6	30.2	52.2	426.6
1985	31.8	308.5	91.6	39.3	55.0	526.2
1986	40.6	362.6	105.1	47.9	59.0	615.2
1987	39.4	414.0	111.6	56.2	64.8	686.0
1988	43.5	467.3	130.3	64.1	67.3	772.5
1989	49.7	514.5	138.6	71.8	70.5	845.1
1990	50.1	561.9	150.7	79.1	74.7	916.5
1991	81.6	610.3	173.4	86.1	79.1	1030.5
1992	128.4	663.8	211.4	93.1	83.6	1180.3
1993	163.5	715.7	250.5	99.8	83.0	1312.5
1994	158.4	766.3	267.3	106.2	87.0	1385.2
1995	181.4	815.7	298.1	112.6	86.7	1494.5
1996	210.3	864.7	326.4	118.8	90.0	1610.2
1997	234.8	920.4	352.9	125.0	91.8	1724.9
1998	230.9	976.2	371.3	131.1	94.8	1804.3
1999	231.1	1034.5	397.6	136.9	97.3	1897.4
2000	235.9	1093.8	417.5	142.7	99.7	1989.6
2001	226.4	1156.0	427.7	149.1	105.1	2064.3
Total	2387.3	12761.0	4376.3	1721.2	1534.5	22780.3



# Annual Investment (Case 6 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	91.8	610.0	165.4	52.0	919.2	919.2
1983	62.0	742.3	279.4	57.8	1141.5	2060.7
1984	58.2	696.8	200.9	64.4	1020.3	3081.0
1985	102.0	710.1	190.2	71.7	1074.0	4155.0
1986	59.9	755.9	125.5	79.5	1020.8	5175.8
1987	25.9	850.5	169.9	88.6	1134.9	6310.7
1988	192.6	1054.1	489.5	98.6	1834.8	8145.5
1989	211.9	1058.9	293.2	109.7	1673.7	9819.2
1990	48.9	1101.0	182.6	121.9	1454.4	11273.6
1991	669.2	1406.1	527.4	135.8	2738.5	14012.1
1992	817.9	1569.9	650.0	151.0	3188.8	17200.9
1993	866.5	1740.2	691.3	168.2	3466.2	20667.1
1994	151.0	2133.0	725.3	186.7	3196.0	23863.1
1995	723.0	2166.1	767.5	208.2	3864.8	27727.9
1996	889.9	2632.1	1125.8	231.3	4879.1	32607.0
1997	1190.6	2886.9	1122.7	257.2	5457.4	38064.4
1998	403.7	3214.2	900.7	286.4	4805.0	42869.4
1999	580.3	4205.1	1740.9	318.3	6844.6	49714.0
2000	361.3	4306.6	1090.5	353.6	6112.0	55826.0
2001	772.8	4803.1	1522.9	393.9	7492.7	63318.7
Total	8279.4	38642.9	12961.6	3434.8	63318.7	

(Case 6 )

**Present Value of Annual Investment**

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	84.6	562.4	152.5	47.9	847.4	847.4
1983	52.6	630.2	237.2	49.1	969.1	1816.5
1984	45.6	545.6	157.3	50.4	798.9	2615.4
1985	73.6	512.7	137.3	51.8	775.4	3390.8
1986	39.8	502.7	83.5	52.9	678.9	4069.7
1987	15.9	521.4	104.1	54.3	695.7	4765.4
1988	108.8	595.6	276.6	55.7	1036.7	5802.1
1989	110.4	551.7	152.8	57.2	872.1	6674.2
1990	23.5	528.5	87.6	58.5	698.1	7372.3
1991	295.8	621.5	233.1	60.0	1210.4	8582.7
1992	333.7	640.5	265.2	61.6	1301.0	9883.7
1993	325.8	654.3	259.9	63.2	1303.2	11186.9
1994	52.2	738.0	251.0	64.6	1105.8	12292.7
1995	230.6	691.0	244.8	66.4	1232.8	13525.5
1996	261.6	773.8	331.0	68.0	1434.4	14959.9
1997	322.7	782.3	304.3	69.7	1479.0	16438.9
1998	100.9	803.6	225.2	71.6	1201.3	17640.2
1999	133.5	967.2	400.4	73.2	1574.3	19214.5
2000	76.6	913.0	231.2	75.0	1295.8	20510.3
2001	151.5	941.4	298.5	77.2	1468.6	21978.9
Total	2839.7	13477.4	4433.5	1228.3	21978.9	

# Annual expense

(Case 6 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	11.9	95.5	25.0	11.5	48.9	192.8
1983	20.0	211.6	67.3	24.3	56.1	379.3
1984	27.5	320.7	97.6	38.6	66.7	551.1
1985	40.8	431.8	126.4	54.4	78.9	732.3
1986	48.6	550.1	145.4	72.0	91.4	907.5
1987	51.9	683.2	171.1	91.7	108.6	1106.5
1988	77.0	848.2	245.1	113.5	117.4	1401.2
1989	104.5	1013.9	289.4	137.8	129.4	1675.0
1990	110.8	1186.2	317.0	164.8	154.9	1933.7
1991	197.8	1406.3	396.7	194.8	177.1	2372.7
1992	304.0	1652.0	495.0	228.3	199.3	2878.6
1993	416.6	1924.3	599.6	265.5	227.9	3433.9
1994	436.2	2258.1	709.2	306.8	245.4	3955.7
1995	530.1	2597.1	825.3	352.9	280.8	4586.2
1996	645.7	3009.0	995.5	404.1	317.1	5371.4
1997	800.4	3460.8	1165.2	461.1	356.8	6244.3
1998	852.8	3963.8	1301.4	524.5	408.5	7051.0
1999	928.2	4621.9	1564.6	595.0	459.5	8169.2
2000	975.1	5295.9	1729.5	673.3	528.1	9201.9
2001	1075.5	6047.6	1959.8	760.5	599.3	10442.7
Total	7655.4	41578.0	13226.1	5475.4	4652.1	72587.0

(Case 6 )

## Present Value of Annual Expense

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	11.0	88.1	23.1	10.6	45.1	177.9
1983	17.0	179.6	57.1	20.6	47.8	322.1
1984	21.5	251.1	76.4	30.2	52.2	431.4
1985	29.5	311.8	91.3	39.3	56.8	528.7
1986	32.3	365.8	96.7	47.9	60.7	603.4
1987	31.8	418.8	104.9	56.2	66.5	678.2
1988	43.5	479.2	138.5	64.1	66.2	791.5
1989	54.4	528.2	150.8	71.8	67.3	872.5
1990	53.2	569.4	152.2	79.1	74.4	928.3
1991	87.4	621.6	175.3	86.1	78.3	1048.7
1992	124.0	674.0	202.0	93.1	81.4	1174.5
1993	156.6	723.5	225.4	99.8	85.6	1290.9
1994	150.9	781.3	245.4	106.2	85.0	1368.8
1995	169.1	828.5	263.3	112.6	89.6	1463.1
1996	189.8	884.6	292.7	118.8	93.1	1579.0
1997	216.9	937.9	315.8	125.0	96.6	1692.2
1998	213.2	991.0	325.4	131.1	102.1	1762.8
1999	213.5	1063.0	359.9	136.9	105.8	1879.1
2000	206.7	1122.7	366.7	142.7	112.0	1950.8
2001	210.8	1185.3	384.1	149.1	117.3	2046.6
Total	2233.1	13005.4	4047.0	1721.2	1583.8	22590.5

# Annual Investment (Case 7 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	91.8	610.0	165.4	52.0	919.2	919.2
1983	62.0	742.3	279.4	57.8	1141.5	2060.7
1984	58.2	673.8	189.7	64.4	986.1	3046.8
1985	126.4	709.9	214.6	71.7	1122.6	4169.4
1986	130.9	757.0	206.6	79.5	1174.0	5343.4
1987	25.9	843.5	158.6	88.6	1116.6	6460.0
1988	97.4	975.1	325.3	98.6	1496.4	7956.4
1989	160.7	1122.0	373.0	109.7	1765.4	9721.8
1990	83.2	1130.8	258.1	121.9	1594.0	11315.8
1991	606.1	1348.1	636.2	135.8	2726.2	14042.0
1992	974.1	1551.1	789.7	151.0	3465.9	17507.9
1993	943.8	1706.6	903.1	168.2	3721.7	21229.6
1994	287.1	1996.6	900.2	186.7	3370.6	24600.2
1995	998.9	2177.3	1189.0	208.2	4573.4	29173.6
1996	996.1	2528.7	1202.5	231.3	4958.6	34132.2
1997	1270.1	2867.6	1344.2	257.2	5739.1	39871.3
1998	357.5	3279.7	1049.6	286.4	4973.2	44844.5
1999	557.9	4055.4	1867.9	318.3	6799.5	51644.0
2000	402.6	4330.1	1123.0	353.6	6209.3	57853.3
2001	740.7	4862.8	2063.4	393.9	8060.8	65914.1
Total	8971.4	38268.4	15239.5	3434.8	65914.1	

(Case 7 )

**Present Value of Annual Investment**

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	84.6	562.4	152.5	47.9	847.4	847.4
1983	52.6	630.2	237.2	49.1	969.1	1816.5
1984	45.6	527.6	148.5	50.4	772.1	2588.6
1985	91.3	512.5	154.9	51.8	810.5	3399.1
1986	87.0	503.4	137.4	52.9	780.7	4179.8
1987	15.9	517.1	97.2	54.3	684.5	4864.3
1988	55.0	550.9	183.8	55.7	845.4	5709.7
1989	83.7	584.6	194.3	57.2	919.8	6629.5
1990	39.9	542.8	123.9	58.5	765.1	7394.6
1991	267.9	595.9	281.2	60.0	1205.0	8599.6
1992	397.4	632.8	322.2	61.6	1414.0	10013.6
1993	354.9	641.7	339.6	63.2	1399.4	11413.0
1994	99.3	690.8	311.5	64.6	1166.2	12579.2
1995	318.6	694.6	379.3	66.4	1458.9	14038.1
1996	292.9	743.4	353.5	68.0	1457.8	15495.9
1997	344.2	777.1	364.3	69.7	1555.3	17051.2
1998	89.4	819.9	262.4	71.6	1243.3	18294.5
1999	128.3	932.7	429.6	73.2	1563.8	19858.3
2000	85.4	918.0	238.1	75.0	1316.5	21174.8
2001	145.2	953.1	404.4	77.2	1579.9	22754.7
Total	3079.1	13331.5	5115.8	1228.3	22754.7	

# Annual expense

(Case 7 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	11.9	95.5	25.0	11.5	48.9	192.8
1983	20.0	211.6	67.3	24.3	56.1	379.3
1984	27.5	317.1	95.9	38.6	66.7	545.8
1985	44.0	428.2	128.4	54.4	76.3	731.3
1986	61.0	546.7	159.6	72.0	88.5	927.8
1987	64.3	678.7	183.6	91.7	105.6	1123.9
1988	77.0	831.3	232.8	113.5	120.4	1375.0
1989	97.9	1006.9	289.2	137.8	136.7	1668.5
1990	108.7	1183.8	328.2	164.8	156.7	1942.2
1991	187.4	1394.8	424.4	194.8	176.7	2378.1
1992	313.9	1637.6	543.8	228.3	198.9	2922.5
1993	436.5	1904.6	680.4	265.5	225.7	3512.7
1994	473.8	2217.1	816.5	306.8	250.1	4064.3
1995	603.6	2557.9	996.2	352.9	273.9	4784.5
1996	733.0	2953.6	1178.1	404.1	302.8	5571.6
1997	898.0	3402.4	1381.3	461.1	331.9	6474.7
1998	944.4	3915.6	1540.0	524.5	375.5	7300.0
1999	1016.9	4550.3	1822.4	595.0	413.7	8398.3
2000	1069.2	5228.0	1992.2	673.3	475.6	9438.3
2001	1165.4	5989.0	2304.2	760.5	532.6	10751.7
Total	8354.4	41050.7	15189.5	5475.4	4413.3	74483.3

(Case 7 )

# Present Value of Annual Expense

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	11.0	88.1	23.1	10.6	45.1	177.9
1983	17.0	179.6	57.1	20.6	47.8	322.1
1984	21.5	248.3	75.1	30.2	52.2	427.3
1985	31.8	309.2	92.7	39.3	55.0	528.0
1986	40.6	363.6	106.1	47.9	58.8	617.0
1987	39.4	416.0	112.5	56.2	64.7	688.8
1988	43.5	469.7	131.5	64.1	67.9	776.7
1989	51.0	524.6	150.7	71.8	71.0	869.1
1990	52.2	568.2	157.5	79.1	75.2	932.2
1991	82.8	616.5	187.6	86.1	78.1	1051.1
1992	128.1	668.1	221.9	93.1	81.1	1192.3
1993	164.1	716.1	255.8	99.8	84.8	1320.6
1994	163.9	767.1	282.5	106.2	86.7	1406.4
1995	192.5	816.0	317.8	112.6	87.4	1526.3
1996	215.5	868.4	346.4	118.8	89.0	1638.1
1997	243.4	922.1	374.3	125.0	90.0	1754.8
1998	236.1	978.9	385.0	131.1	93.7	1824.8
1999	233.9	1046.6	419.2	136.9	95.2	1931.8
2000	226.7	1108.3	422.3	142.7	101.0	2001.0
2001	228.4	1173.8	451.6	149.1	104.2	2107.1
Total	2423.4	12849.2	4570.7	1721.2	1528.9	23093.4



# Annual Investment (Case 8 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	86.3	586.1	187.9	52.0	912.3	912.3
1983	64.0	785.5	261.6	57.8	1168.9	2081.2
1984	144.9	802.9	208.5	64.4	1220.7	3301.9
1985	12.1	738.2	139.3	71.7	961.3	4263.2
1986	73.0	830.5	168.2	79.5	1151.2	5414.4
1987	63.1	972.7	291.5	88.6	1415.9	6830.3
1988	131.2	1097.3	270.2	98.6	1597.3	8427.6
1989	656.2	1187.1	451.2	109.7	2404.2	10831.8
1990	580.6	1220.4	410.2	121.9	2333.1	13164.9
1991	759.9	1799.1	746.0	135.8	3440.8	16605.7
1992	252.8	1680.4	462.0	151.0	2546.2	19151.9
1993	751.0	2109.7	814.1	168.2	3843.0	22994.9
1994	740.9	2278.1	755.5	186.7	3961.2	26956.1
1995	952.3	2741.5	1130.3	208.2	5032.3	31988.4
1996	249.1	3060.0	748.9	231.3	4289.3	36277.7
1997	427.7	3682.1	1026.9	257.2	5393.9	41671.6
1998	449.5	4213.7	1242.6	286.4	6192.2	47863.8
1999	336.9	4663.9	1238.1	318.3	6557.2	54421.0
2000	914.5	5477.4	1456.6	353.6	8202.1	62623.1
2001	592.9	5908.1	1611.4	393.9	8506.3	71129.4
Total	8238.9	45834.7	13621.0	3434.8	71129.4	

(Case 8 )

**Present Value of Annual Investment**

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	79.6	540.4	173.2	47.9	841.1	841.1
1983	54.3	666.9	222.1	49.1	992.4	1833.5
1984	113.5	628.7	163.3	50.4	955.9	2789.4
1985	8.7	533.0	100.6	51.8	694.1	3483.5
1986	48.5	552.3	111.9	52.9	765.6	4249.1
1987	38.7	596.3	178.7	54.3	868.0	5117.1
1988	74.1	620.0	152.7	55.7	902.5	6019.6
1989	341.9	618.5	235.1	57.2	1252.7	7272.3
1990	278.7	585.8	196.9	58.5	1119.9	8392.2
1991	335.9	795.2	329.7	60.0	1520.8	9913.0
1992	103.1	685.6	188.5	61.6	1038.8	10951.8
1993	282.4	793.2	306.1	63.2	1444.9	12396.7
1994	256.4	788.2	261.4	64.6	1370.6	13767.3
1995	303.8	874.5	360.6	66.4	1605.3	15372.6
1996	73.2	899.6	220.2	68.0	1261.0	16633.6
1997	115.9	997.8	278.3	69.7	1461.7	18095.3
1998	112.4	1053.4	310.7	71.6	1548.1	19643.4
1999	77.5	1072.7	284.8	73.2	1508.2	21151.6
2000	193.9	1161.2	308.8	75.0	1738.9	22890.5
2001	116.2	1158.0	315.8	77.2	1667.2	24557.7
Total	3008.7	15621.3	4699.4	1228.3	24557.7	

(Case 8 )

## Annual expense

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	11.2	91.7	28.4	11.5	48.9	191.7
1983	19.5	214.7	68.0	24.3	56.6	383.1
1984	38.3	340.3	99.5	38.6	66.7	583.4
1985	39.9	455.8	120.6	54.4	80.9	751.6
1986	49.4	585.8	146.0	72.0	94.5	947.7
1987	57.6	738.0	190.1	91.7	108.7	1186.1
1988	74.6	909.8	230.9	113.5	125.9	1454.7
1989	159.9	1095.5	299.1	137.8	141.5	1833.8
1990	235.3	1286.5	361.2	164.8	168.9	2216.7
1991	334.0	1568.1	474.0	194.8	186.9	2757.8
1992	366.9	1831.1	543.8	228.3	219.9	3190.0
1993	464.4	2161.2	666.9	265.5	245.9	3803.9
1994	560.6	2517.8	781.1	306.8	284.5	4450.8
1995	684.4	2946.8	952.0	352.9	319.7	5255.8
1996	716.7	3425.7	1065.3	404.1	370.5	5982.3
1997	772.3	4002.0	1220.5	461.1	428.1	6884.0
1998	830.7	4661.4	1408.4	524.5	471.1	7896.1
1999	874.4	5391.3	1595.6	595.0	547.7	9004.0
2000	993.2	6248.5	1815.9	673.3	614.5	10345.4
2001	1070.2	7173.1	2059.5	760.5	714.3	11777.6
Total	8353.5	47645.1	14126.8	5475.4	5295.7	80896.5

(Case 8 )

## Present Value of Annual Expense

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	10.3	84.5	26.2	10.6	45.1	176.7
1983	16.6	182.3	57.7	20.6	48.2	325.4
1984	30.0	266.5	77.9	30.2	52.2	456.8
1985	28.8	329.1	87.1	39.3	58.3	542.6
1986	32.9	389.6	97.1	47.9	62.8	630.3
1987	35.3	452.4	116.5	56.2	66.6	727.0
1988	42.1	514.0	130.5	64.1	71.1	821.8
1989	83.3	570.8	155.8	71.8	73.7	955.4
1990	112.9	617.5	173.4	79.1	81.0	1063.9
1991	147.6	693.1	209.5	86.1	82.7	1219.0
1992	149.7	747.1	221.9	93.1	89.7	1301.5
1993	174.6	812.6	250.8	99.8	92.5	1430.3
1994	194.0	871.2	270.3	106.2	98.5	1540.2
1995	218.3	940.0	303.7	112.6	101.9	1676.5
1996	210.7	1007.2	313.2	118.8	109.0	1758.9
1997	209.3	1084.5	330.8	125.0	116.1	1865.7
1998	207.7	1165.4	352.1	131.1	117.7	1974.0
1999	201.1	1240.0	367.0	136.9	126.1	2071.1
2000	210.6	1324.7	385.0	142.7	130.5	2193.5
2001	209.8	1405.9	403.7	149.1	139.7	2308.2
Total	2525.6	14698.4	4330.2	1721.2	1763.4	25038.8

# Annual Investment (Case 9 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	86.3	608.6	165.4	52.0	912.3	912.3
1983	56.0	665.8	278.9	57.8	1058.5	1970.8
1984	51.4	620.7	205.6	64.4	942.1	2912.9
1985	99.6	622.2	189.6	71.7	983.1	3896.0
1986	51.5	678.8	124.3	79.5	934.1	4830.1
1987	20.2	695.8	134.6	88.6	939.2	5769.3
1988	32.8	844.6	195.2	98.6	1171.2	6940.5
1989	231.9	1024.2	415.0	109.7	1780.8	8721.3
1990	40.1	1011.7	179.7	121.9	1353.4	10074.7
1991	38.0	1227.3	299.4	135.8	1700.5	11775.2
1992	105.3	1272.0	213.1	151.0	1741.4	13516.6
1993	734.1	1478.9	596.2	168.2	2977.4	16494.0
1994	904.9	1737.5	825.9	186.7	3655.0	20149.0
1995	942.0	1914.1	706.7	208.2	3771.0	23920.0
1996	122.8	2237.9	574.5	231.3	3166.5	27086.5
1997	172.4	2456.7	578.7	257.2	3465.0	30551.5
1998	174.9	2630.2	630.1	286.4	3721.6	34273.1
1999	1133.8	3118.2	990.2	318.3	5560.5	39833.6
2000	1284.7	3439.1	1307.5	353.6	6384.9	46218.5
2001	1624.2	3959.5	1476.1	393.9	7453.7	53672.2
Total	7906.9	32243.8	10086.7	3434.8	53672.2	

(Case 9 )

**Present Value of Annual Investment**

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Total	Cumula. total
1982	79.6	561.1	152.5	47.9	841.1	841.1
1983	47.5	565.3	236.8	49.1	898.7	1739.8
1984	40.2	486.0	161.0	50.4	737.6	2477.4
1985	71.9	449.2	136.9	51.8	709.8	3187.2
1986	34.2	451.4	82.7	52.9	621.2	3808.4
1987	12.4	426.5	82.5	54.3	575.7	4384.1
1988	18.5	477.2	110.3	55.7	661.7	5045.8
1989	120.8	533.6	216.2	57.2	927.8	5973.6
1990	19.2	485.6	86.3	58.5	649.6	6623.2
1991	16.8	542.5	132.3	60.0	751.6	7374.8
1992	43.0	519.0	86.9	61.6	710.5	8085.3
1993	276.0	556.1	224.2	63.2	1119.5	9204.8
1994	313.1	601.2	285.8	64.6	1264.7	10469.5
1995	300.5	610.6	225.4	66.4	1202.9	11672.4
1996	36.1	657.9	168.9	68.0	930.9	12603.3
1997	46.7	665.8	156.8	69.7	939.0	13542.3
1998	43.7	657.6	157.5	71.6	930.4	14472.7
1999	260.8	717.2	227.7	73.2	1278.9	15751.6
2000	272.4	729.1	277.2	75.0	1353.7	17105.3
2001	318.3	776.1	289.3	77.2	1460.9	18566.2
Total	2371.7	11469.0	3497.2	1228.3	18566.2	

# Annual expense

(Case 9 )

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	11.2	95.2	25.0	11.5	48.9	191.8
1983	18.5	199.4	67.2	24.3	55.0	364.4
1984	25.2	296.6	98.3	38.6	63.9	522.6
1985	38.1	394.0	126.9	54.4	74.0	687.4
1986	44.8	500.2	145.7	72.0	85.9	848.6
1987	47.4	609.1	166.1	91.7	100.0	1014.3
1988	51.7	741.3	195.6	113.5	115.1	1217.2
1989	81.8	901.5	258.3	137.8	126.4	1505.8
1990	87.0	1059.9	285.5	164.8	147.8	1745.0
1991	91.9	1252.0	330.8	194.8	161.4	2030.9
1992	105.6	1451.0	363.0	228.3	186.6	2334.5
1993	201.0	1682.5	453.1	265.5	212.5	2814.6
1994	318.5	1954.4	578.0	306.8	236.3	3394.0
1995	440.9	2253.9	684.9	352.9	271.3	4003.9
1996	456.8	2604.2	771.7	404.1	301.1	4537.9
1997	479.2	2988.6	859.2	461.1	344.0	5132.1
1998	502.0	3400.3	954.5	524.5	388.7	5770.0
1999	649.2	3888.3	1104.2	595.0	438.1	6674.8
2000	816.1	4426.5	1301.9	673.3	491.3	7709.1
2001	1027.1	5046.2	1525.1	760.5	553.4	8912.3
Total	5494.0	35745.1	10295.0	5475.4	4401.7	61411.2

(Case 9)

**Present Value of Annual Expense**

Unit : Million Baht

Year	Trans- mission	Distri- bution	Substation	Vehicle & equipment	Distribu. losses	Total
1982	10.3	87.8	23.1	10.6	45.1	176.9
1983	15.7	169.3	57.1	20.6	46.8	309.5
1984	19.7	232.2	77.0	30.2	50.1	409.2
1985	27.5	284.5	91.6	39.3	53.4	496.3
1986	29.8	332.6	96.9	47.9	57.1	564.3
1987	29.1	373.4	101.8	56.2	61.3	621.8
1988	29.2	418.8	110.5	64.1	65.0	687.6
1989	42.6	469.7	134.6	71.8	65.8	784.5
1990	41.8	508.8	137.0	79.1	70.9	837.6
1991	40.6	553.4	146.2	86.1	71.2	897.5
1992	43.1	592.0	148.1	93.1	76.1	952.4
1993	75.6	632.6	170.4	99.8	79.8	1058.2
1994	110.2	676.2	200.0	106.2	81.7	1174.3
1995	140.6	719.0	218.5	112.6	86.3	1277.0
1996	134.3	765.6	226.9	118.8	88.3	1333.9
1997	129.9	809.9	232.8	125.0	93.0	1390.6
1998	125.5	850.1	238.6	131.1	96.7	1442.0
1999	149.3	894.3	254.0	136.9	100.6	1535.1
2000	173.0	938.4	276.0	142.7	103.9	1634.0
2001	201.3	989.1	298.9	149.1	107.8	1746.2
Total	1569.1	11297.7	3240.0	1721.2	1500.9	19328.9



# Appendix 7 Details of Investment of Each Cases

Amount of Investment

(Case 2 )

(Detail)

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	89.2	0.0	76.2	68.7	0.0	17.6	111.7	483.8	13.0
'83	193.6	0.0	85.8	33.4	0.0	28.6	175.8	556.2	10.3
'84	105.6	0.0	100.5	27.3	0.0	30.9	94.1	608.6	4.1
'85	71.9	0.0	118.3	90.9	0.0	11.1	33.8	682.1	4.0
'86	4.1	0.0	121.4	0.0	0.0	59.9	31.5	716.5	7.9
'87	34.5	0.0	135.4	0.0	0.0	25.9	76.6	764.1	9.8
'88	246.1	0.0	150.4	119.6	0.0	42.0	170.7	862.0	18.6
'89	98.9	0.0	159.0	20.5	0.0	121.0	148.9	920.2	16.6
'90	4.8	0.0	174.8	0.0	0.0	48.9	45.2	1,046.2	9.8
'91	12.0	167.1	189.0	0.0	562.5	17.6	89.5	1,197.0	18.4
'92	302.6	232.0	216.2	133.8	607.1	133.3	265.1	1,351.8	31.0
'93	244.0	250.8	233.7	154.8	656.2	61.7	289.8	1,496.5	22.9
'94	221.3	0.0	265.0	24.7	0.0	66.6	312.0	1,711.8	44.7
'95	227.5	227.4	275.1	104.9	681.2	24.0	286.1	1,900.2	26.4
'96	260.2	245.3	318.9	59.6	734.8	77.7	313.6	2,134.9	35.5
'97	605.2	265.2	348.8	308.6	794.4	112.0	681.6	2,464.0	51.2
'98	336.6	0.0	375.0	107.5	0.0	181.4	356.1	2,790.7	37.2
'99	912.3	0.0	453.4	278.7	0.0	163.1	667.0	3,154.8	50.8
2000	607.4	0.0	469.8	101.7	0.0	246.5	759.1	3,576.3	45.3
2001	1,108.7	0.0	527.1	317.5	0.0	152.3	1,020.6	4,058.2	63.1
TTL	5,686.5	1,387.8	4,793.8	1,952.2	4,036.2	1,622.1	5,928.8	32,475.9	520.6

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

Present Value of Amount of Investment  
(Detail)

(Case 2 )

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	82.2	0.0	70.3	63.3	0.0	16.2	103.0	446.1	12.0
'83	164.4	0.0	72.8	28.4	0.0	24.3	149.3	472.2	8.7
'84	82.7	0.0	78.7	21.4	0.0	24.2	73.7	476.5	3.2
'85	51.9	0.0	85.4	65.6	0.0	8.0	24.4	492.5	2.9
'86	2.7	0.0	80.7	0.0	0.0	39.8	20.9	476.5	5.3
'87	21.1	0.0	83.0	0.0	0.0	15.9	47.0	468.4	6.0
'88	139.0	0.0	85.0	67.6	0.0	23.7	96.4	487.0	10.5
'89	51.5	0.0	82.8	10.7	0.0	63.0	77.6	479.4	8.6
'90	2.3	0.0	83.9	0.0	0.0	23.5	21.7	502.2	4.7
'91	5.3	73.9	83.5	0.0	248.6	7.8	39.6	529.1	8.1
'92	123.5	94.7	88.2	54.6	247.7	54.4	108.2	551.5	12.6
'93	91.7	94.3	87.9	58.2	246.7	23.2	109.0	562.7	8.6
'94	76.6	0.0	91.7	8.5	0.0	23.0	108.0	592.3	15.5
'95	72.6	72.5	87.8	33.5	217.3	7.7	91.3	606.2	8.4
'96	76.5	72.1	93.8	17.5	216.0	22.8	92.2	627.7	10.4
'97	164.0	71.9	94.5	83.6	215.3	30.4	184.7	667.7	13.9
'98	84.2	0.0	93.8	26.9	0.0	45.4	89.0	697.7	9.3
'99	209.8	0.0	104.3	64.1	0.0	37.5	153.4	725.6	11.7
2000	128.8	0.0	99.6	21.6	0.0	52.3	160.9	758.2	9.6
2001	217.3	0.0	103.3	62.2	0.0	29.9	200.0	795.4	12.4
TTL	1,848.1	479.4	1,751.0	687.7	1,391.6	573.0	1,950.3	11,414.9	182.4

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

Amount of Investment

(Case 3 )

(Detail)

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	89.2	0.0	76.2	84.3	0.0	17.6	111.7	483.8	13.0
'83	193.6	0.0	85.8	33.4	0.0	28.6	175.8	556.2	10.3
'84	92.9	0.0	100.5	52.4	0.0	30.9	76.5	608.6	4.1
'85	100.3	0.0	114.3	115.3	0.0	11.1	23.8	682.1	4.0
'86	83.7	0.0	126.9	71.0	0.0	59.9	33.1	716.5	7.9
'87	22.3	0.0	136.3	0.0	0.0	25.9	69.6	764.1	9.8
'88	179.1	0.0	151.8	38.8	0.0	42.0	118.5	862.0	18.6
'89	76.0	0.0	164.8	0.9	0.0	121.0	108.2	920.2	16.6
'90	134.1	0.0	185.9	4.2	0.0	48.9	129.8	1,046.2	9.8
'91	127.9	215.0	203.6	63.5	562.5	17.6	143.7	1,197.0	18.4
'92	310.3	232.0	224.1	274.2	607.1	133.3	173.9	1,351.8	31.0
'93	503.1	194.9	259.6	70.5	656.2	61.7	281.6	1,496.5	22.9
'94	316.2	0.0	301.2	72.0	0.0	66.6	270.0	1,711.8	44.7
'95	524.6	227.4	324.8	147.0	681.2	24.0	293.0	1,900.2	26.4
'96	770.8	245.3	378.1	339.3	734.8	77.7	329.2	2,134.9	35.5
'97	618.6	265.2	457.2	338.1	794.4	112.0	374.0	2,464.0	51.2
'98	627.0	0.0	503.7	291.0	0.0	181.4	511.1	2,790.7	37.2
'99	994.7	0.0	582.0	314.6	0.0	163.1	694.5	3,154.8	50.8
2000	567.8	0.0	639.3	298.0	0.0	246.5	709.0	3,576.3	45.3
2001	1,017.7	0.0	713.2	355.6	0.0	152.3	538.2	4,058.2	63.1
TTL	7,349.9	1,379.8	5,729.3	2,964.1	4,036.2	1,622.1	5,165.2	32,475.9	520.6

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

Present Value of Amount of Investment  
(Detail)

(Case 3 )

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	82.2	0.0	70.3	77.7	0.0	16.2	103.0	446.1	12.0
'83	164.4	0.0	72.8	28.4	0.0	24.3	149.3	472.2	8.7
'84	72.7	0.0	78.7	41.0	0.0	24.2	59.9	476.5	3.2
'85	72.4	0.0	82.5	83.2	0.0	8.0	17.2	492.5	2.9
'86	55.7	0.0	84.4	47.2	0.0	39.8	22.0	476.5	5.3
'87	13.7	0.0	83.6	0.0	0.0	15.9	42.7	468.4	6.0
'88	101.2	0.0	85.8	21.9	0.0	23.7	67.0	487.0	10.5
'89	39.6	0.0	85.9	0.5	0.0	63.0	56.4	479.4	8.6
'90	64.4	0.0	89.2	2.0	0.0	23.5	62.3	502.2	4.7
'91	56.5	95.0	90.0	28.1	248.6	7.8	63.5	529.1	8.1
'92	126.6	94.7	91.4	111.9	247.7	54.4	71.0	551.5	12.6
'93	189.2	73.7	97.6	26.5	246.7	23.2	105.9	562.7	8.6
'94	109.4	0.0	104.2	24.9	0.0	23.0	93.4	592.3	15.5
'95	167.3	72.5	103.6	46.9	217.3	7.7	93.5	606.2	8.4
'96	226.6	72.1	111.2	99.8	216.0	22.8	96.8	627.7	10.4
'97	167.6	71.9	123.9	91.6	215.3	30.4	101.4	667.7	13.9
'98	156.8	0.0	125.9	72.8	0.0	45.4	127.8	697.7	9.3
'99	228.8	0.0	133.9	72.4	0.0	37.5	159.7	725.6	11.7
2000	120.4	0.0	135.5	63.2	0.0	52.3	150.3	758.2	9.6
2001	199.5	0.0	139.8	69.7	0.0	29.9	105.5	795.4	12.4
TTL	2,415.0	479.5	1,990.2	1,009.7	1,391.6	573.0	1,748.6	11,414.9	182.4

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

Amount of Investment  
(Detail)

(Case 4 )

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	89.2	0.0	76.2	74.2	0.0	17.6	110.4	483.8	13.0
'83	189.7	0.0	85.8	33.4	0.0	28.6	173.9	556.2	10.3
'84	101.3	0.0	100.5	27.3	0.0	30.9	78.2	608.6	4.1
'85	115.7	0.0	118.3	115.3	0.0	11.1	30.5	682.1	4.0
'86	4.1	0.0	123.6	0.0	0.0	59.9	27.3	716.5	7.9
'87	120.2	0.0	141.5	76.6	0.0	25.9	73.2	764.1	9.8
'88	117.3	38.0	147.4	37.0	0.0	42.0	106.8	862.0	18.6
'89	93.4	41.0	162.0	90.9	0.0	121.0	136.3	920.2	16.6
'90	4.8	0.0	177.8	0.0	0.0	48.9	32.6	1,046.2	9.8
'91	12.0	167.1	192.3	0.0	562.5	17.6	72.4	1,197.0	18.4
'92	390.4	180.3	232.8	66.1	607.1	133.3	273.1	1,351.8	31.0
'93	270.8	194.9	235.8	145.4	656.2	61.7	238.9	1,496.5	22.9
'94	409.4	0.0	277.7	118.3	0.0	66.6	333.2	1,711.8	44.7
'95	270.1	227.4	297.7	68.9	681.2	24.0	231.2	1,900.2	26.4
'96	527.2	245.3	348.2	134.8	734.8	77.7	380.3	2,134.9	35.5
'97	336.5	265.2	381.2	238.2	794.4	112.0	367.4	2,464.0	51.2
'98	556.2	0.0	435.0	206.3	0.0	181.4	423.9	2,790.7	37.2
'99	1,212.4	0.0	506.1	476.9	0.0	163.1	673.9	3,154.8	50.8
2000	1,017.6	0.0	542.2	584.6	0.0	246.5	683.8	3,576.3	45.3
2001	1,078.4	0.0	622.3	234.4	0.0	152.3	971.7	4,058.2	63.1
TTL	6,916.7	1,359.2	5,204.4	2,728.6	4,036.2	1,622.1	5,419.0	32,475.9	520.6

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

Present Value of Amount of Investment  
(Detail)

(Case 4 )

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	82.2	0.0	70.3	68.4	0.0	16.2	101.8	446.1	12.0
'83	161.1	0.0	72.8	28.4	0.0	24.3	147.6	472.2	8.7
'84	79.3	0.0	78.7	21.4	0.0	24.2	61.2	476.5	3.2
'85	83.5	0.0	85.4	83.2	0.0	8.0	22.0	492.5	2.9
'86	2.7	0.0	82.2	0.0	0.0	39.8	18.2	476.5	5.3
'87	73.7	0.0	86.7	47.0	0.0	15.9	44.9	468.4	6.0
'88	66.3	21.5	83.3	20.9	0.0	23.7	60.3	487.0	10.5
'89	48.7	21.4	84.4	47.4	0.0	63.0	71.0	479.4	8.6
'90	2.3	0.0	85.3	0.0	0.0	23.5	15.6	502.2	4.7
'91	5.3	73.9	85.0	0.0	248.6	7.8	32.0	529.1	8.1
'92	159.3	73.6	95.0	27.0	247.7	54.4	111.4	551.5	12.6
'93	101.8	73.3	88.7	54.7	246.7	23.2	89.8	562.7	8.6
'94	141.7	0.0	96.1	40.9	0.0	23.0	115.3	592.3	15.5
'95	86.2	72.5	95.0	22.0	217.3	7.7	73.8	606.2	8.4
'96	155.0	72.1	102.4	39.6	216.0	22.8	111.8	627.7	10.4
'97	91.2	71.9	103.3	64.6	215.3	30.4	99.6	667.7	13.9
'98	139.1	0.0	108.8	51.6	0.0	45.4	106.0	697.7	9.3
'99	278.9	0.0	116.4	109.7	0.0	37.5	155.0	725.6	11.7
2000	215.7	0.0	114.9	123.9	0.0	52.3	145.0	758.2	9.6
2001	211.4	0.0	122.0	45.9	0.0	29.9	190.5	795.4	12.4
TTL	2,185.4	480.2	1,856.7	896.6	1,391.6	573.0	1,722.8	11,414.9	182.4

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

Amount of Investment  
(Detail)

(Case 5 )

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub- TL	Upper system	Others	High V DL	Lower system	Semi- insula- ted DL
'82	89.2	0.0	76.2	74.2	0.0	17.6	110.4	483.8	13.0
'83	189.7	0.0	85.8	33.4	0.0	28.6	173.9	556.2	10.3
'84	88.6	0.0	100.5	27.3	0.0	30.9	63.8	608.6	4.1
'85	94.8	0.0	114.3	115.3	0.0	11.1	20.3	682.1	4.0
'86	78.8	0.0	126.9	71.0	0.0	59.9	29.3	716.5	7.9
'87	22.3	0.0	136.3	0.0	0.0	25.9	56.5	764.1	9.8
'88	169.8	0.0	151.8	55.4	0.0	42.0	89.1	862.0	18.6
'89	69.8	0.0	164.8	20.5	0.0	121.0	89.0	920.2	16.6
'90	132.0	0.0	185.2	20.8	0.0	48.9	114.2	1,046.2	9.8
'91	103.3	215.0	198.8	37.0	562.5	17.6	126.6	1,197.0	18.4
'92	370.8	232.0	230.1	260.6	607.1	133.3	190.5	1,351.8	31.0
'93	532.0	194.9	251.4	208.3	656.2	61.7	247.5	1,496.5	22.9
'94	393.8	0.0	310.0	109.2	0.0	66.6	232.9	1,711.8	44.7
'95	491.9	227.4	353.3	147.0	681.2	24.0	260.8	1,900.2	26.4
'96	523.2	245.3	392.6	318.9	734.8	77.7	282.5	2,134.9	35.5
'97	551.0	265.2	453.2	257.0	794.4	112.0	395.0	2,464.0	51.2
'98	698.2	0.0	511.9	256.4	0.0	181.4	420.8	2,790.7	37.2
'99	1,042.2	0.0	568.1	462.8	0.0	163.1	584.2	3,154.8	50.8
2000	940.0	0.0	651.4	585.0	0.0	246.5	604.1	3,576.3	45.3
2001	655.6	0.0	754.0	173.5	0.0	152.3	597.7	4,058.2	63.1
TTL	7,237.0	1,379.8	5,816.6	3,233.6	4,036.2	1,622.1	4,689.1	32,475.9	520.6

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

Present Value of Amount of Investment

(Case 5 )

(Detail)

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	82.2	0.0	70.3	68.4	0.0	16.2	101.8	446.1	12.0
'83	161.1	0.0	72.8	28.4	0.0	24.3	147.6	472.2	8.7
'84	69.4	0.0	78.7	21.4	0.0	24.2	50.0	476.5	3.2
'85	68.4	0.0	82.5	83.2	0.0	8.0	14.7	492.5	2.9
'86	52.4	0.0	84.4	47.2	0.0	39.8	19.5	476.5	5.3
'87	13.7	0.0	83.6	0.0	0.0	15.9	34.6	468.4	6.0
'88	95.9	0.0	85.8	31.3	0.0	23.7	50.3	487.0	10.5
'89	36.4	0.0	85.9	10.7	0.0	63.0	46.4	479.4	8.6
'90	63.4	0.0	88.9	10.0	0.0	23.5	54.8	502.2	4.7
'91	45.7	95.0	87.9	16.4	248.6	7.8	56.0	529.1	8.1
'92	151.3	94.7	93.9	106.3	247.7	54.4	77.7	551.5	12.6
'93	200.0	73.3	94.5	78.3	246.7	23.2	93.1	562.7	8.6
'94	136.3	0.0	107.3	37.8	0.0	23.0	80.6	592.3	15.5
'95	156.9	72.5	112.7	46.9	217.3	7.7	83.2	606.2	8.4
'96	153.8	72.1	115.4	93.8	216.0	22.8	83.1	627.7	10.4
'97	149.3	71.9	122.8	69.6	215.3	30.4	107.0	667.7	13.9
'98	174.6	0.0	128.0	64.1	0.0	45.4	105.2	697.7	9.3
'99	239.7	0.0	130.7	106.4	0.0	37.5	134.4	725.6	11.7
2000	199.3	0.0	138.1	124.0	0.0	52.3	128.1	758.2	9.6
2001	128.5	0.0	147.8	34.0	0.0	29.9	117.1	795.4	12.4
TTL	2,378.3	479.5	2,012.0	1,078.2	1,391.6	573.0	1,585.2	11,414.9	182.4

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function



## Amount of Investment

(Case 6 )

(Detail)

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	89.2	0.0	76.2	74.2	0.0	17.6	113.2	483.8	13.0
'83	193.6	0.0	85.8	33.4	0.0	28.6	175.7	556.2	10.3
'84	100.4	0.0	100.5	27.3	0.0	30.9	84.1	608.6	4.1
'85	71.9	0.0	118.3	90.9	0.0	11.1	24.0	682.1	4.0
'86	4.1	0.0	121.4	0.0	0.0	59.9	31.5	716.5	7.9
'87	34.5	0.0	135.4	0.0	0.0	25.9	76.6	764.1	9.8
'88	295.3	38.0	156.2	150.6	0.0	42.0	173.5	862.0	18.6
'89	90.2	41.0	162.0	90.9	0.0	121.0	122.1	920.2	16.6
'90	4.8	0.0	177.8	0.0	0.0	48.9	45.0	1046.2	9.8
'91	168.0	167.1	192.3	89.1	562.5	17.6	190.7	1197.0	18.4
'92	240.4	180.3	229.3	77.5	607.1	133.3	187.1	1351.8	31.0
'93	260.6	194.9	235.8	148.6	656.2	61.7	220.8	1496.5	22.9
'94	432.7	0.0	292.6	84.4	0.0	66.6	376.5	1711.8	44.7
'95	242.4	227.4	297.7	17.8	681.2	24.0	239.5	1900.2	26.4
'96	546.4	245.3	334.1	77.4	734.8	77.7	461.7	2134.9	35.5
'97	480.3	265.2	377.2	284.2	794.4	112.0	371.7	2464.0	51.2
'98	465.7	0.0	435.0	222.3	0.0	181.4	386.3	2790.7	37.2
'99	1239.9	0.0	501.0	417.2	0.0	163.1	999.5	3154.8	50.8
2000	554.8	0.0	535.7	114.8	0.0	246.5	685.0	3576.3	45.3
2001	903.3	0.0	619.6	620.5	0.0	152.3	681.8	4058.2	63.1
TTL	6418.5	1359.2	5183.9	2621.1	4036.2	1622.1	5646.3	32475.9	520.6

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

## Present Value of Amount of Investment

(Case 6 )

(Detail)

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	82.2	0.0	70.3	68.4	0.0	16.2	104.4	446.1	12.0
'83	164.4	0.0	72.8	28.4	0.0	24.3	149.2	472.2	8.7
'84	78.6	0.0	78.7	21.4	0.0	24.2	65.9	476.5	3.2
'85	51.9	0.0	85.4	65.6	0.0	8.0	17.3	492.5	2.9
'86	2.7	0.0	80.7	0.0	0.0	39.8	20.9	476.5	5.3
'87	21.1	0.0	83.0	0.0	0.0	15.9	47.0	468.4	6.0
'88	166.8	21.5	88.3	85.1	0.0	23.7	98.0	487.0	10.5
'89	47.0	21.4	84.4	47.4	0.0	63.0	63.6	479.4	8.6
'90	2.3	0.0	85.3	0.0	0.0	23.5	21.6	502.2	4.7
'91	74.3	73.9	85.0	39.4	248.6	7.8	84.3	529.1	8.1
'92	98.1	73.6	93.6	31.6	247.7	54.4	76.3	551.5	12.6
'93	98.0	73.3	88.7	55.9	246.7	23.2	83.0	562.7	8.6
'94	149.7	0.0	101.2	29.2	0.0	23.0	130.3	592.3	15.5
'95	77.3	72.5	95.0	5.7	217.3	7.7	76.4	606.2	8.4
'96	160.6	72.1	98.2	22.8	216.0	22.8	135.7	627.7	10.4
'97	130.2	71.9	102.2	77.0	215.3	30.4	100.7	667.7	13.9
'98	116.4	0.0	108.8	55.6	0.0	45.4	96.6	697.7	9.3
'99	285.2	0.0	115.2	96.0	0.0	37.5	229.9	725.6	11.7
2000	117.6	0.0	113.6	24.3	0.0	52.3	145.2	758.2	9.6
2001	177.0	0.0	121.4	121.6	0.0	29.9	133.6	795.4	12.4
TTL	2101.4	480.2	1851.8	875.4	1391.6	573.0	1879.9	11414.9	182.4

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

## Amount of Investment

(Case 7 )

(Detail)

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	89.2	0.0	76.2	74.2	0.0	17.6	113.2	483.8	13.0
'83	193.6	0.0	85.8	33.4	0.0	28.6	175.7	556.2	10.3
'84	89.2	0.0	100.5	27.3	0.0	30.9	61.1	608.6	4.1
'85	100.3	0.0	114.3	115.3	0.0	11.1	23.8	682.1	4.0
'86	79.5	0.0	127.1	71.0	0.0	59.9	32.6	716.5	7.9
'87	22.3	0.0	136.3	0.0	0.0	25.9	69.6	764.1	9.8
'88	173.5	0.0	151.8	55.4	0.0	42.0	94.5	862.0	18.6
'89	203.9	0.0	169.1	39.7	0.0	121.0	185.2	920.2	16.6
'90	74.3	0.0	183.8	34.3	0.0	48.9	74.8	1046.2	9.8
'91	213.6	215.0	207.6	26.2	562.5	17.6	132.7	1197.0	18.4
'92	320.8	232.0	236.9	233.7	607.1	133.3	168.3	1351.8	31.0
'93	453.0	194.9	255.2	225.9	656.2	61.7	187.2	1496.5	22.9
'94	590.2	0.0	310.0	220.5	0.0	66.6	240.1	1711.8	44.7
'95	606.6	227.4	355.0	293.7	681.2	24.0	250.7	1900.2	26.4
'96	550.2	245.3	407.0	183.6	734.8	77.7	358.3	2134.9	35.5
'97	586.2	265.2	492.8	363.7	794.4	112.0	352.4	2464.0	51.2
'98	517.4	0.0	532.2	176.1	0.0	181.4	451.8	2790.7	37.2
'99	1262.1	0.0	605.8	394.8	0.0	163.1	849.8	3154.8	50.8
2000	455.0	0.0	668.0	156.1	0.0	246.5	708.5	3576.3	45.3
2001	1298.5	0.0	764.9	588.4	0.0	152.3	741.5	4058.2	63.1
TTL	7879.4	1379.8	5980.3	3313.3	4036.2	1622.1	5271.8	32475.9	520.6

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

Present Value of Amount of Investment

(Case 7 )

(Detail)

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	82.2	0.0	70.3	68.4	0.0	16.2	104.4	446.1	12.0
'83	164.4	0.0	72.8	28.4	0.0	24.3	149.2	472.2	8.7
'84	69.8	0.0	78.7	21.4	0.0	24.2	47.8	476.5	3.2
'85	72.4	0.0	82.5	83.2	0.0	8.0	17.2	492.5	2.9
'86	52.9	0.0	84.5	47.2	0.0	39.8	21.7	476.5	5.3
'87	13.7	0.0	83.6	0.0	0.0	15.9	42.7	468.4	6.0
'88	98.0	0.0	85.8	31.3	0.0	23.7	53.4	487.0	10.5
'89	106.2	0.0	88.1	20.7	0.0	63.0	96.5	479.4	8.6
'90	35.7	0.0	88.2	16.5	0.0	23.5	35.9	502.2	4.7
'91	94.4	95.0	91.8	11.6	248.6	7.8	58.7	529.1	8.1
'92	130.9	94.7	96.7	95.3	247.7	54.4	68.7	551.5	12.6
'93	170.3	73.3	96.0	84.9	246.7	23.2	70.4	562.7	8.6
'94	204.2	0.0	107.3	76.3	0.0	23.0	83.1	592.3	15.5
'95	193.5	72.5	113.2	93.7	217.3	7.7	80.0	606.2	8.4
'96	161.8	72.1	119.7	54.0	216.0	22.8	105.3	627.7	10.4
'97	158.9	71.9	133.5	98.6	215.3	30.4	95.5	667.7	13.9
'98	129.4	0.0	133.1	44.0	0.0	45.4	113.0	697.7	9.3
'99	290.3	0.0	139.3	90.8	0.0	37.5	195.5	725.6	11.7
2000	96.5	0.0	141.6	33.1	0.0	52.3	150.2	758.2	9.6
2001	254.5	0.0	149.9	115.3	0.0	29.9	145.3	795.4	12.4
TTL	2580.0	479.5	2056.6	1114.7	1391.6	573.0	1734.5	11414.9	182.4

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

## Amount of Investment

(Case 8 )

(Detail)

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	111.7	0.0	76.2	68.7	0.0	17.6	89.2	484.0	13.0
'83	175.8	0.0	85.8	33.4	0.0	30.6	193.6	580.9	11.0
'84	101.0	0.0	107.5	111.5	0.0	33.4	160.4	638.1	4.4
'85	26.4	0.0	112.9	0.0	0.0	12.1	12.7	721.2	4.3
'86	46.8	0.0	121.4	0.0	0.0	73.0	7.0	814.0	9.6
'87	156.1	0.0	135.4	34.1	0.0	29.0	142.2	819.6	10.9
'88	117.2	0.0	153.0	82.8	0.0	48.4	133.9	942.0	21.4
'89	148.8	143.2	159.2	20.5	482.1	153.6	97.4	1068.6	21.2
'90	81.0	154.5	174.8	0.0	520.1	60.6	11.1	1197.2	12.1
'91	330.2	215.0	200.8	175.8	562.5	21.7	408.6	1367.9	22.7
'92	190.5	51.7	219.8	87.4	0.0	165.4	88.1	1553.9	38.4
'93	373.4	194.9	245.8	89.2	583.9	77.9	343.9	1737.0	28.8
'94	272.1	210.2	273.3	27.3	629.6	84.0	227.4	1994.2	56.4
'95	603.5	227.4	299.4	239.9	681.2	31.2	445.1	2262.1	34.3
'96	432.5	0.0	316.4	146.6	0.0	102.5	441.9	2571.1	47.0
'97	629.3	0.0	397.6	283.3	0.0	144.4	686.5	2929.6	66.0
'98	844.7	0.0	397.9	211.9	0.0	237.6	806.5	3358.4	48.8
'99	780.5	0.0	457.6	123.0	0.0	213.9	791.9	3805.4	66.6
2000	918.9	0.0	537.7	591.6	0.0	322.9	1094.8	4323.3	59.4
2001	1009.2	0.0	602.2	391.6	0.0	201.3	882.1	4942.8	83.2
TTL	7349.6	1196.9	5074.7	2718.6	3459.4	2061.1	7064.3	38111.3	659.5

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

Present Value of Amount of Investment

(Case 8 )

(Detail)

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	103.0	0.0	70.3	63.3	0.0	16.2	82.2	446.2	12.0
'83	149.3	0.0	72.8	28.4	0.0	26.0	164.4	493.2	9.3
'84	79.1	0.0	84.2	87.3	0.0	26.2	125.6	499.6	3.4
'85	19.1	0.0	81.5	0.0	0.0	8.7	9.2	520.7	3.1
'86	31.1	0.0	80.7	0.0	0.0	48.5	4.7	541.3	6.4
'87	95.7	0.0	83.0	20.9	0.0	17.8	87.2	502.4	6.7
'88	66.2	0.0	86.4	46.8	0.0	27.3	75.7	532.2	12.1
'89	77.5	74.6	82.9	10.7	251.2	80.0	50.7	556.7	11.0
'90	38.9	74.2	83.9	0.0	249.6	29.1	5.3	574.7	5.8
'91	145.9	95.0	88.8	77.7	248.6	9.6	180.6	604.6	10.0
'92	77.7	21.1	89.7	35.7	0.0	67.5	35.9	634.0	15.7
'93	140.4	73.3	92.4	33.5	219.5	29.3	129.3	653.1	10.8
'94	94.1	72.7	94.6	9.4	217.8	29.1	78.7	690.0	19.5
'95	192.5	72.5	95.5	76.5	217.3	10.0	142.0	721.6	10.9
'96	127.2	0.0	93.0	43.1	0.0	30.1	129.9	755.9	13.8
'97	170.5	0.0	107.7	76.8	0.0	39.1	186.0	793.9	17.9
'98	211.2	0.0	99.5	53.0	0.0	59.4	201.6	839.6	12.2
'99	179.5	0.0	105.2	28.3	0.0	49.2	182.1	875.2	15.3
2000	194.8	0.0	114.0	125.4	0.0	68.5	232.1	916.5	12.6
2001	197.8	0.0	118.0	76.8	0.0	39.5	172.9	968.8	16.3
TTL	2391.5	483.4	1824.1	893.6	1404.0	711.1	2276.1	13120.2	224.8

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

## Amount of Investment

(Case 9 )

(Detail)

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	89.2	0.0	76.2	68.7	0.0	17.6	111.7	484.0	13.0
'83	193.1	0.0	85.8	33.4	0.0	22.6	173.3	484.3	8.2
'84	105.1	0.0	100.5	27.3	0.0	24.1	91.4	526.1	3.2
'85	71.3	0.0	118.3	90.9	0.0	8.7	32.6	586.4	3.2
'86	2.9	0.0	121.4	0.0	0.0	51.5	17.7	654.2	6.8
'87	3.2	0.0	131.4	0.0	0.0	20.2	25.4	662.9	7.6
'88	48.8	0.0	146.4	0.0	0.0	32.8	82.8	747.2	14.6
'89	252.6	0.0	162.4	129.1	0.0	102.8	171.2	838.7	14.3
'90	8.0	0.0	171.7	0.0	0.0	40.1	72.0	931.8	7.9
'91	113.7	0.0	185.7	23.9	0.0	14.1	162.3	1050.3	14.6
'92	9.1	0.0	204.0	0.0	0.0	105.3	72.5	1175.0	24.5
'93	180.8	194.9	220.5	29.7	656.2	48.2	170.0	1291.0	17.9
'94	298.7	270.4	256.8	145.4	707.5	52.0	228.9	1473.7	34.9
'95	137.0	292.6	277.1	157.6	765.6	18.9	244.7	1648.5	20.9
'96	265.2	0.0	309.3	61.4	0.0	61.4	360.9	1848.9	28.1
'97	257.9	0.0	320.8	87.2	0.0	85.2	339.1	2078.8	38.8
'98	257.7	0.0	372.4	37.1	0.0	137.8	253.8	2348.4	28.1
'99	284.7	309.0	396.6	85.8	925.5	122.6	449.4	2630.6	38.2
2000	550.5	333.5	423.5	105.7	999.0	180.1	478.4	2927.5	33.2
2001	607.3	360.7	508.1	432.8	1080.4	111.0	597.6	3315.7	46.2
TTL	3736.8	1761.1	4588.9	1516.0	5134.2	1257.0	4135.7	27704.0	404.2

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function

## Present Value of Amount of Investment

(Case 9 )

(Detail)

	Substation			Transmission line			Distribution line		
	Distribution SS	Upper system	Others	Sub-TL	Upper system	Others	High V DL	Lower system	Semi-insulated DL
'82	82.2	0.0	70.3	63.3	0.0	16.2	103.0	446.2	12.0
'83	163.9	0.0	72.8	28.4	0.0	19.2	147.1	411.2	7.0
'84	82.3	0.0	78.7	21.4	0.0	18.9	71.6	411.9	2.5
'85	51.5	0.0	85.4	65.6	0.0	6.3	23.5	423.4	2.3
'86	1.9	0.0	80.7	0.0	0.0	34.2	11.8	435.0	4.5
'87	2.0	0.0	80.5	0.0	0.0	12.4	15.6	406.4	4.7
'88	27.6	0.0	82.7	0.0	0.0	18.5	46.8	422.2	8.2
'89	131.6	0.0	84.6	67.3	0.0	53.6	89.2	437.0	7.5
'90	3.8	0.0	82.4	0.0	0.0	19.2	34.6	447.3	3.8
'91	50.3	0.0	82.1	10.6	0.0	6.2	71.7	464.2	6.5
'92	3.7	0.0	83.2	0.0	0.0	43.0	29.6	479.4	10.0
'93	68.0	73.3	82.9	11.2	246.7	18.1	63.9	485.4	6.7
'94	103.4	93.6	88.9	50.3	244.8	18.0	79.2	509.9	12.1
'95	43.7	93.3	88.4	50.3	244.2	6.0	78.1	525.9	6.7
'96	78.0	0.0	90.9	18.1	0.0	18.1	106.1	543.6	8.3
'97	69.9	0.0	86.9	23.6	0.0	23.1	91.9	563.4	10.5
'98	64.4	0.0	93.1	9.3	0.0	34.5	63.5	587.1	7.0
'99	65.5	71.1	91.2	19.7	212.9	28.2	103.4	605.1	8.8
2000	116.7	70.7	89.8	22.4	211.8	38.2	101.4	620.6	7.0
2001	119.0	70.7	99.6	84.8	211.8	21.8	117.1	649.9	9.1
TTL	1329.4	472.7	1695.1	546.3	1372.2	453.7	1449.1	9875.0	145.2

(Note) SS : Substation, TL : Transmission line, DL : Distribution line

Others : Renewal of function





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