

1 Q. Re: Holyrood: Please specifically list the Holyrood generation assets and their  
2 individual original cost as of 2009 that are included in the depreciation study.  
3 Further, fully explain and justify their synchronous condenser mode of operations.  
4 Finally, identify the mortality characteristics assigned to each and explain and fully  
5 justify how each was determined.

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8 A. The table below shows the Holyrood synchronous condenser asset list included in  
9 the depreciation study.

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11 These assets were identified from the complete Holyrood asset listing by asset  
12 specialists from Holyrood. These assets will facilitate and support the synchronous  
13 condensing function of the Holyrood plant after the generation decommissioning in  
14 2020. A synchronous condenser is a specialized synchronous machine whose shaft  
15 is not attached to anything, but spins freely. Its purpose is not to convert  
16 mechanical power to electrical power like synchronous generators, but rather to  
17 assist in voltage control of the transmission system to which it is connected.

18

19 The operation of synchronous condensers at the Holyrood Plant will require that  
20 building infrastructure and several operating systems be kept in place. The assets  
21 that will remain in service can generally be classified in three primary systems.  
22 These systems include building systems, power systems, and generator systems.

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24 The synchronous condensers will be housed within the main plant building at  
25 Holyrood. The main systems required for continued plant operation within this  
26 building include lighting, heating, ventilating, and air conditioning systems, fire

detection and suppression systems, communications systems, security systems, and domestic water and sewage systems.

Power system equipment must also remain in service for the operation of the synchronous condensers. For safe and reliable operation, protection and control infrastructure will remain in service. These systems include components such as control cabling, relays, batteries, battery chargers, and backup power supplies. Equipment such as transformers and breakers will allow for the interconnection of the units to the power system.

The operation of the three Holyrood generators as synchronous condensers requires that generators and their ancillary systems remain in operation. Primary generator components such as stators, rotor and excitation systems will be kept in service. Ancillary systems relate to the cooling and lubrication of the units and will also be required. Assets relating to unit maintenance, such as hoists, must also be available.

The mortality characteristics of the synchronous condensing assets in Holyrood are similar to that of other like assets throughout the Hydro system therefore these assets were included in the total analysis for the Company. Average Service Lives are assigned based on the Unit of Property. Therefore, the mortality characteristics of these assets were determined by the Unit of Property assigned to the assets.

## Holyrood Synchronous Condenser Asset Listing - 2009

Unit of Property	Asset Number	Description	Net Depreciable Cost <sup>1</sup> \$
A04	99000314	INSTALL EMERGENCY DIESEL UNIT	135,560
A04	99000315	INSTALL WOODWARD DIESEL UNIT	18,688
A04	99031801	DIESEL SYNCHRONIZER	2,140
B01	6728	#1 BATTERY CHARGERS	31,035
B01	8173	#2 BATTERY CHARGERS	31,035
B01	8186	#2 BATTERY BANKS	3,272
B01	303350	129 VDC CHARGER A	7,443
B01	303351	129 VDC CHARGER B	7,443
B01	99000349	INSTALL BATTERY CHARGER	6,581
B01	99000351	INSTALL BATTERY CHARGER STAGE	24,255
B01	99000352	INSTALL BATTERY CHARGER STAGE	24,255
B01	99000354	ADDITIONAL COSTS FOR D.C. DISTRIBUTION BOARD	1,000
B01	99000355	INSTALL D.C. DISTRIBUTION BOARD	109,972
B01	99000356	INSTALL D.C. DISTRIBUTION BOARD	109,972
B01	99029566	C & D 120 CELL BATTERY BANK	62,339
B01	99029567	C & D 120 CELL BATTERY BANK	49,589
B01	99029568	C & D 60 CELL BATTERY BANK	22,993
B01	99032476	250 VOLT DC BATTERY BANK	28,046
B01	99032477	250 VOLT BATTERY BANK	56,093
B01	99032478	250 VOLT DC BATTERY CHARGER	11,284
B01	99032479	250 VOLT DC BATTERY CHARGER	22,569
B01	99038702	DISTRIBUTION PANELBOARD	2,065
B01	99038703	DISTRIBUTION PANELBOARD	2,065
B01	99038704	DISTRIBUTION PANELBOARD	2,065
B01	99038705	DISTRIBUTION PANELBOARD	2,065
B01	99038706	BATTERY CHARGER	37,967
B01	99043229	250 VOLT DC BATTERY BANK	28,046
B01	99043230	250 VOLT DC BATTERY CHARGE	11,284
B02	309894	600 V METRIC PLUGS	618,617
B02	309895	601 V METRIC PLUGS	618,617
B02	309896	602 V METRIC PLUGS	618,617
B02	99000217	INSTALL FERROUS SULPHATE DOSIN SYSTEM ON ONE UNIT	12,241
B02	99031330	INSTALL FERROUS SULPHATE DOSIN SYSTEM	17,862
B02	99043179	INSTALL FERROUS SULPHATE DOSIN SYSTEM ON ONE UNIT	12,241
B02	99043180	INSTALL FERROUS SULPHATE DOSIN SYSTEM ON ONE UNIT	12,241
B02	99043224	INSTALL FERROUS SULPHATE DOSIN SYSTEM	17,862
B02	99043225	INSTALL FERROUS SULPHATE DOSIN SYSTEM	17,862

<sup>1</sup> Original cost less Contributions in Aid of Construction

## Holyrood Synchronous Condenser Asset Listing - 2009

Unit of Property	Asset Number	Description	Net Depreciable Cost <sup>1</sup> \$
B05	7287	HRD GUARDHOUSE	30,058
B05	303237	HRD GUARDHOUSE	1,020,466
B05	303240	STAGE 1 EMERGENCY DIESEL	262,113
B05	303242	EXCITER ROOM WEST	64,045
B05	303270	EXCITER ROOM EAST A/C UNIT	64,035
B05	303271	STAG1 RELAY ROOM NORTH	89,201
B05	303272	STAGE 1 RELAY ROOM SOUTH	89,201
B05	303273	STAGE 2 RELAY ROOM NORTH	60,423
B05	303274	STAGE 2 RELAY ROOM SOUTH	89,201
B05	304674	EMERGENCY POWER BUILDING	59,063
B05	304675	INERGEN FIRE SUPPRESSION SYS.	89,151
B05	304677	AIR CONDITIONERS	42,347
B05	99031642	ROOM TO HOUSE U P S/INVERTER WITH AIR CONDITIONING UNIT	38,829
B06	7284	HRD TRAINING CENTRE	182,400
B06	7285	HRD STAGE 1 PUMPHOUSE	241,338
B06	7303	HRD MAIN WAREHOUSE	182,400
B06	272256	HRD WATER TREATMENT BUILDING	727,128
B06	99000103	ERECT A METAL HYDROGEN STORAGE	149,602
B06	99000104	ERECT A METAL EX-SHAWMOUNT BUILDING 74' X 32' #1	164,510
B06	99000105	INSTALL INSULATION & HEATING FOR STORAGE AREA OF METER	9,561
B06	99000107	METAL PUMPHOUSE UNIT #3 73' X 62.5' STEEL GARAGE DOORS	2,261,734
B06	99000110	METAL WAREHOUSE EXTENSION	36,619
B06	99000111	PROVIDE EXTRA WASHROOM FACILITIES	5,274
B06	99000112	INSTALL NEW OFFICE & WORKSHOP FACIL FOR MAINT. STAFF	403,932
B06	99003550	PRE-ENGINEERED BLDG. FOR TREATMENT PLANT AT W.W.T.S.	602,200
B06	99003551	PRE-ENGINEERED BLDG. FOR BASINS AT W.W.T.S.	258,765
B06	99003552	BLDG. TO PROVIDE NEW OFFICE AND WORKSHOP FACILITIES	1,310
B07	6724	#1 GENERATOR BUS DUCT AND CONNS	13,619
B07	8153	#2 GEN. BUS DUCTS AND CONN'S	13,619
B07	99000327	INSTALL BUS DUCT (GENERATOR)	311,717
B07	99000328	REMOVE & REPLACE ISOLATED PHASE BUS DUCT UNITS 1 AND 2	60,439
B07	99043193	REMOVE & REPLACE ISOLATED PHASE DUCTS UNITS 1 AND 2	60,439
C03	99000114	INSTALL CABLE TRENCHES AND DUCTS	14,404
C03	99000115	INSTALL CABLE TRENCHES AND DUCTS	544,049
C03	99043173	INSTALL CABLE TRENCHES AND DUCTS	14,404
C04	270296	#1 CABLE RACEWAYS	109,760
C04	270297	#1 CONTROL CABLES	180,338
C04	271475	#2 CABLE RACEWAYS	109,760
C04	271476	#2 CONTROL CABLES	180,338

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Unit of Property	Asset Number	Description	Net Depreciable Cost <sup>1</sup> \$
C04	99000330	INSTALL CABLE TRAYS AND CONDUIT	365,915
C04	99000335	INSTALL CONTROL CABLES STAGE I	629,827
C04	99000336	REMOVAL & REROUTING OF CNTRL CABLE FOR GEN. XFORMER	6,455
C04	99000338	INSTALL CONTROL CABLES FOR GENERATOR XFORMER	6,232
C04	99000340	INSTALL POWER CABLE #4160 VOLT	39,929
C04	99000341	INSTALL POWER CABLE #4160 VOLT	115,612
C04	99000342	INSTALL POWER CABLES #600 VOLT	56,686
C04	99000343	INSTALL POWER CABLES #600 VOLT	245,258
C04	99024411	CABLE TRAY - 2 FT WIDTH	22,929
C04	99024412	METAL CONDUIT 3/4" DIAMETER	27,470
C04	99024417	#14 AWG CONTROL CABLE	2,451
C04	99024418	#16 AWG CONTROL CABLE	51,536
C04	99024419	#12-2 CONTROL CABLE	1,911
C04	99024420	#12 AWG CONTROL CABLE	15,694
C04	99024421	#16 AWG INSTRUMENT CONTROL CAB	32,873
C04	99024422	#16 AWG CONTROL CABLE	14,041
C04	99024423	#16AWG CONTROL CABLE	12,496
C04	99024424	#16 AWG CONTROL CABLE	26,639
C04	99024425	#14 AWG CONTROL CABLE	848
C04	99024426	#16 AWG TYPE TX CONTROL CABLE	22,545
C04	99024427	#16 AWG TYPE KX CONTROL CABLE	32,798
C04	99024428	#4 AWG POWER CABLE	2,702
C04	99024429	#16 AWG POWER CABLE	7,088
C04	99034726	CABLE REPLACEMENT	30,448
C04	99043194	INSTALL POWER CABLE #4160	39,929
C04	99043195	INSTALL POWER CABLES #600	56,686
C04	99043228	CABLE REPLACEMENT	30,448
C09	99038707	SIEMENS BREAKER MCC GPB34	3,712
C09	99038708	SIEMENS BREAKER MCC GPB34	3,712
C09	99038709	SIEMENS BREAKER MCC GPB34	3,712
C09	99038710	SIEMENS BREAKER MCC GPB34	3,712
C09	99038711	SIEMENS BREAKER MCC GPB34	3,712
C10	7235	COMPRESSED AIR RECEIVERS	2,476
C10	325028	#3 ATLAS COPCO ROTARY COMPRESSOR	262,394
C10	99000061	OIL FREE ROTARY AIR COMPRESSOR	97,188
C10	99000063	AIR RECIEVERS - MANU DRUMMOND	6,285
C10	99000065	AIR RECIEVER - MANU CLEMMER (SERVICE)	2,476
C10	99000066	AIR RECIEVER - MANU CLEMMER (SERVICE)	2,476
C10	99000067	AIR RECIEVERS - MANU CLEMMER (SERVICE)	2,476

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Unit of Property	Asset Number	Description	Net Depreciable Cost <sup>1</sup> \$
C10	99000073	AIR RECIEVER - MFG DRUMMOND (INSTRUMENT)	6,285
C10	99000074	AIR RECIEVER - MFG DRUMMOND (SERVICE)	6,285
C10	99000075	AIR RECIEVER - MFG DRUMMOND (SERVICE)	6,285
C10	99000076	AIR RECIEVER - MFG FERRO METAL	6,285
C10	99000078	REPLACE BREAKER FOR INSTRUMENT	9,289
C10	99000079	INSTRUMENT AIR DRYER - MFG PALLL MD T500HAD40000B	36,205
C10	99000080	BALANCE OF COMPRESSED AIR SYSTEM	37,291
C10	99000081	BALANCE OF AIR COMPRESSORS STAGE III	187,205
C10	99023634	AIR COMPRESSOR	218,309
C10	99026193	COMP AIR SYS-INSTR AIR DRYER 5	54,400
C10	99029554	AIR COMPRESSOR VIBRATION PROBE	10,656
C10	99031332	AIR COMPRESSOR	53,878
C14	99000412	INSTALL PRIMARY CONDUCTOR (1/0 ALUM) FOR SUB-STATION	1,184
C14	99000413	INSTALL PRIMARY CONDUCTOR FOR HOLYROOD YARD	2,569
C14	99000414	ADDITIONAL COSTS FOR PRIMARY CONDUCTOR HOLYROOD YARD (#2AASC)	1,770
C14	99000415	INSTALL SECONDARY CONDUCTOR HOLYROOD YARD	734
C14	99000416	INSTALL SERVICE CONDUCTOR SUB-STATION	178
C14	99000417	INSTALL SERVICE CONDUCTOR HOLYROOD YARD	656
C14	99000418	ADDITIONAL COSTS FOR SERVICE CONDUCTOR HOLYROOD YARD	1,359
C14	99027648	#1/0 AASC PRIMARY CONDUCTOR	185
C14	99027649	#1/0 PEWP SECONDARY CONDUCTOR	355
C14	99027652	#2 QUAD SERVICE CONDUCTOR	242
C16	9857	GENERAL SERVICE COOLING WATER	49,141
C16	279782	SYNCH CONDENSER AUX CW SYSTEM	36,319
C16	99000090	GENERAL SERVICE COOLING SYSTEM	15,097
C18	271815	HRD POWERHOUSE CRANE	207,888
C18	271817	HRD PUMPHOUSE CRANE STAGE 1	26,119
C18	99000255	ADDITIONAL COSTS FOR CRANE	45,541
C18	99000257	PUMPHOUSE CRANE	90,746
D01	7534	QUARRY BROOK DAM & FISHWAY SYSTEM	146,224
E01	99000259	INSTALL 2 ELEVATORS	89,800
E03	99023660	PORTABLE HAND HELD COLORIMETER	1,246
F01	299949	HRD FALL PROTECTION EQUIPMENT	25,105
F01	299950	FALL PROTECTION EQUIPMENT P#2	6,896
F01	305735	FALL ARREST EQUIP- HOLYROOD	1,000
F01	310010	FALL ARREST EQUIP- HOLYROOD	30,764
F01	324826	FALL ARREST EQUIP- HOLYROOD	13,621
F01	324828	FALL ARREST EQUIP- HOLYROOD	13,621
F01	324829	FALL ARREST EQUIP- HOLYROOD	13,621

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Unit of Property	Asset Number	Description	Net Depreciable Cost <sup>1</sup> \$
F01	333647	FALL PROTECTION	6,066
F01	333648	FALL PROTECTION	1,013
F01	333649	FALL PROTECTION	3,132
F01	333650	FALL PROTECTION	4,279
F02	272258	HRD FENCING	55,375
F02	291146	FENCING - SECURITY PROJECT	12,021
F02	99000029	CHAIN LINK FENCING	34,826
F02	99000030	CHAIN LINK FENCING AROUND STORES	13,143
F02	99000031	CHAIN LINK FENCING	20,670
F02	99000032	CHAIN LINK FENCING	18,205
F02	99000033	REMOVE AND REPLACE FENCING	710
F02	99027849	GALVANIZED CHAIN LINK FENCING	5,395
F03	6695	#1 TURBINE OIL SYSTEMS	41,588
F03	7236	HYDROGEN STORAGE AND SUPPLY	8,581
F03	7251	FIRE PROTECTION SYSTEMS	92,651
F03	7711	#2 TURBINE OIL SYSTEMS	41,588
F03	299429	INERGEN FIRE SUPPRESSION SYS.	55,242
F03	327186	FIRE PROTECTION SYSTEM UPGRADE	1,804,418
F03	331939	U1 EMERGENCY HYDROGEN VENTING	213,220
F03	99000045	DELUGE SYSTEM TRANSFORMERS	8,913
F03	99000046	DELUGE SYSTEM TRANSFORMERS	97,007
F03	99000047	INSTALL A 3 HOUR PENRATION FIRE SEALING SYSTEM	37,076
F03	99000048	UPGRADING FOR UNITS 1 & 2	98,328
F03	99000049	INSTALL FIRE ALARM,CONTROL PANEL, ACCESSORIES	28,820
F03	99000051	POWERHOUSE FIRE PROTECTION STAGE III	506,992
F03	99000052	POWERHOUSE FIRE PROTECTION IMPROVEMENTS	121,555
F03	99000053	POWERHOUSE FIRE PROTECTION UPGRADING UNITS 1 AND 2	29,138
F03	99000054	BALANCE OF FIRE FIGHTING SYSTEM	273,042
F03	99000055	INSTALL 2 FIRE HOUSES AND EQUIPMENT	17,775
F03	99000085	HYDROGEN AND CO2 SYSTEM	19,139
F03	99031922	ADDT'L COSTS UPGRADE 1 & 2	70,846
F03	99032480	SPRINKLER SYSTEM UNIT 1	26,661
F03	99032481	SPRINKLER SYSTEM UNIT 2	26,661
F03	99032482	SPRINKLER SYSTEM UNIT 3	15,197
F03	99039523	FIRE PROTECTION SYSTEM FOR OIL SYSTEM UNIT #3	10,763
F04	7180	GENERATOR TRANSFORMER & AUX'S	7,683
F04	99000097	CONCRETE FOUNDATIONS FOR EXTENSION	132,075
F04	99003547	FOUNDATION FOR TREATMENT BUILDING	86,260
F04	99003549	ADD'L COSTS FOR CONCRETE FOUNDATION	437

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Unit of Property	Asset Number	Description	Net Depreciable Cost <sup>1</sup> \$
F04	99043204	FOUNDATION FOR TREATMENT B	86,260
F06	334475	FUEL STORAGE FACILITY DRAINAGE	2,086,318
F06	99003534	OIL SEPARATOR SYSTEM	337,553
F06	99029565	FUEL TRANSFER CATCHMENT BASINS	5,460
F06	99034231	OIL STORAGE TANKS	23,437
F06	99034713	OIL STORAGE TANK	276,777
F06	99039096	DUPLEX FILTER FOR LUBE OIL	356,353
F06	99039097	DUPLEX FILTER FOR LUBE OIL	356,353
G03	6696	U1 GENERATOR ASSEMBLY	999,194
G03	6840	#1 GENERATOR STATOR	845,472
G03	7753	U2 GENERATOR	999,194
G03	7754	#2 GENERATOR ROTOR	1,421,930
G03	7759	#2 GENERATOR STATOR	845,472
G03	8326	#3 GENERATOR SYNCHRONOUS CONDENSER	786,016
G03	324689	#1 GENERATOR STATOR RELAY	39,474
G03	324690	#2 GENERATOR STATOR RELAY	39,474
G03	324691	#3 GENERATOR STATOR RELAY	39,474
G03	99000269	INSTALL ROTORS UNIT 1 - MFG CA	1,421,930
G03	99000271	INSTALL ROTOR UNIT 3 - MFG HIT	3,994,241
G03	99000274	INSTALL STATOR UNIT 3 - MFG HIT	2,374,954
G03	99000276	ADDITIONAL COSTS FOR BALANCE OF GENERATORS	83,000
G03	99000277	BALANCE OF GENERATORS	2,806,765
G03	99003559	REMOVE PCB XFRMER & INSTALL NE	1,540
G03	99003560	REMOVE PCB XFRMER & INSTALL NE	1,540
G03	99034724	PARTIAL DISCHARGE ANALYSIS SYSTEM	165,900
G03	99039100	PARTIAL DISCHARGE ANALYSIS	97,014
G03	99041243	DISCHARGE ANALYSIS SYSTEM	119,804
G03	99043191	ADDITIONAL COSTS FOR BALANF GENERATORS	83,000
G06	99041696	THERMOCOUPLES IN TURB BEARINGS	66,829
G07	324762	4.16 kV GROUNDING TRUCK	27,711
G07	324763	4.16 kV GROUNDING TRUCK	27,711
G07	99000402	INSTALL GROUNDING	53,073
G07	99000403	INSTALL GROUNDING STAGE III	73,295
I02	7719	#2 TURBINE LUBE OIL SYSTEM	3,339
I02	291668	Unit 1 DCS	1,639,203
I02	299451	Unit 2 DCS	1,156,535
I02	301711	UNIT 3 DCS	224,216
I02	301712	STATION SERVICE DCS	273,143



## Holyrood Synchronous Condenser Asset Listing - 2009

Unit of Property	Asset Number	Description	Net Depreciable Cost <sup>1</sup> \$
I02	99000373	INSTALL OIL SUPERVISORY EQUIPMENT	3,339
I02	99000392	COMMISSION THE WIRING FOR ALL 4160 VOLT UNIT & STATION BOARD	19,531
I02	99000396	INSTALL RELAYS FOR UNIT 3	19,048
I02	99024410	BENTLEY NEVADA TURBINE SUPERVISION - UNIT 3	3,435
I05	7193	U1 UPS INVERTER	88,248
I05	8174	UPS 2, INVERTER	94,043
I05	8751	UPS 3 INVERTER	3,200
I05	8757	UPS 4 INVERTER	110,955
I05	325164	SNMP UPGRADE - UPS #1 - HRD	2,753
I05	325165	SNMP UPGRADE - UPS #2 - HRD	2,753
I05	325166	SNMP UPGRADE - UPS #3 - HRD	2,753
I05	325167	SNMP UPGRADE - UPS #4 - HRD	2,753
I05	99029560	INVERTER DISTRIBUTION UNIT #2	17,605
I05	99038700	UNINTERRUPTIBLE POWER SUPPLY	110,955
L03	291150	SITE IMPROVEMENTS SEC. PROJECT	102,617
L03	99000002	LAND IMPROVEMENTS	992,777
L03	99000003	LAND IMPROVEMENTS	4,000
L03	99000004	LAND IMPROVEMENTS STAGE III	490,716
L03	99000005	LAND IMPROVEMENTS	57,692
L03	99000006	PARKING FACILITIES ON WESTERN SIDE OF BUILDING	25,670
L03	99000007	PROTECTION AT INTERSECTION OF HIGHWAY AND ACCESS ROAD	10,617
L03	99000010	SODS AND TOPSOIL	16,491
L03	99003525	LAND IMPROVEMENTS FOR WASTE WATER TREATMENT SYSTEM	29,464
L03	99029569	UPGRADE SITE SERVICES HOLYROOD	9,058
L03	99032483	LAND IMPROVEMENTS	33,904
L04	99000056	LIGHTING SYSTEM - OUTDOOR	28,226
L04	99000057	COSTS TRANSFERRED FROM OPERATING, STREET LIGHTS	1,612
M03	270295	#1 SWITCHGEAR 4160/600V	215,787
M03	271478	#2 SWITCHGEAR 4160 & 600 VOLT	215,787
M03	99000363	INSTALL METALCLAD SWITCHGEAR	780,388
M03	99000421	STUDY FOR METALCLAD SWITCHGEAR	18,803
M03	99031935	CONTROL SYSTEM	11,461
M03	99031936	UPGRADE SYNC CHECK SYSTEM	3,572
M03	99043202	STUDY FOR METALCLAD SWITCH	18,803
M03	99043203	STUDY FOR METALCLAD SWITCH	18,803
M03	99043226	UPGRADE SYNC CHECK SYSTEM	3,572
M03	99043227	UPGRADE SYNC CHECK SYSTEM	3,572
P04	99027647	POLE HARDWARE	5,348
P05	99000406	INSTALL WOOD POLE STRUCTURES	10,217

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Unit of Property	Asset Number	Description	Net Depreciable Cost <sup>1</sup> \$
P05	99000407	WOOD POLE STRUCTURES FOR HOLYROOD	10,472
P05	99000408	ADDITIONAL COSTS FOR WOOD POLE STRCT HOLYROOD YARD	7,392
P05	99023675	WOOD POLE STRUCTURES	7,059
P05	99032022	WOOD POLE STRUCTURES	893
P07	99027650	30' WOOD POLES	497
P07	99027651	40' WOOD POLES	594
P09	291153	DISTRIBUTION LINE SEC. PROJECT	29,434
P10	99000088	AIR CONDITIONING VENTALILATION	86,528
P10	99000092	POWERHOUSE SUBSTRUCTURE STAGE	2,120,729
P10	99000116	INSTALL POWERHOUSE SUPERSTRUCT	3,591,078
P10	99000117	POWERHOUSE SUPERSTRUCTURE STAGE III 112' X 260' CONCRETE	5,000
P10	99000118	IMPROVE MACHINE SHOP AND OFFICE	30,244
P10	99000119	INSTALL POWERHOUSE SUPERSTRUCTURE	6,210,370
P10	99000120	ADDITIONAL COSTS FOR MACHINE SHOP	844,266
P10	99000121	TO MEET ADITIONAL GENERATING CAPACITY	9,595
P10	99000122	ENLARGE ENGINEERING OFFICE AND ADDITIONAL 2 OFFICES	25,070
P10	99000123	BUILD 1 OFFICE AND 1 LUNCHROOM	15,507
P10	99000126	REPLACEMENT OF WINDOWS AND REPAIRS TO THE SILL	74,744
P10	99000127	CENTRALIZED D.C. EMERGENCY LIGHTING SYSTEM	31,616
P10	99000128	PROVIDE A WORKSHOP CLEANING ARHTING SYSTEM	20,925
P10	99000129	REPLACE WATER COOLED AIR CONDITIONING UNITS 1	32,030
P10	99000130	REPLACE WATER COOLED AIR CONDITIONING UNITS 2	32,030
P10	99000131	REPLACE WATER COOLED AIR CONDITIONING UNITS 3	32,030
P10	99000132	PRELIMINARY ENGINEERING WORK EXHAUST FANS	3,555
P10	99000133	INSTALL A DUCT HEATER TO MAINTAIN RETURN AIR TO 20 C	8,467
P10	99000134	EMERGENCY LIGHTING SYSTEM	30,395
P10	99003543	WORKSHOP ROOF COATING	4,107
P10	99024409	MODIFICATIONS TO POWERHOUSE SUPERSTRUCT. FOR WDPF SYSTEM	23,482
P10	99036223	WET SPRINKLER SYSTEM	107,639
P12	6721	#1 RELAY RM PROTECTN & CONTROL	28,541
P12	8138	#2 RELAY RM PROTECT & CONTROL	28,541
P12	324374	CWP EAST MOT PROT RELAY	10,669
P12	324378	CWP WEST MOT PROT RELAY	10,669
P12	99000324	INSTALL PROT. CONTR. AND RELAY PANELS STAGE III	274,002
P12	99000325	INSTALL EQUIPMENT TO PROVIDE EMS POINTS & P&C REQUIREMENTS	64,494
R13	272257	HRD ROADS & SITE LIGHTING	490,478
R13	99000012	ROADS AT THERMAL PLANT	27,000
R13	99000014	PROVIDE SITE ROADS FOR HOLYROOD	55,489

## Holyrood Synchronous Condenser Asset Listing - 2009

Unit of Property	Asset Number	Description	Net Depreciable Cost <sup>1</sup> \$
R13	99000015	REPAIR ROADS, WORK ORDER 0035	992
S04	7258	SEWAGE DISPOSAL	88,394
S04	99000039	SEWAGE DISPOSAL SYSTEM STAGE I	62,430
S04	99000040	INSTALL SEWAGE DISPOSAL SYSTEM	221,484
S04	99032475	SOLID WASTE DISPOSAL SITE	55,599
S04	99034289	SOLID WASTE DISPOSAL SITE	976,186
S04	99039422	SEWAGE DISPOSAL SYSTEM STAGE I	355,827
S07	299550	UNIT 2 CW TRAVELLING STRUCTURE	93,839
S07	299551	UNIT 2 CW TRAVELLING STRUCTURE	93,839
S08	6849	#1 GENERATOR EXCITATION SYSTEM	46,117
S08	7767	#2 GENERATOR EXCITATION SYSTEM	46,117
S08	271310	#1 EXCITER	325,618
S08	271312	#1 EXCITER FIELD BREAKER	23,557
S08	271322	#2 EXCITER	790,170
S08	271325	#2 EXCITER FIELD BREAKER	23,557
S08	99000281	INSTALL EXCITER UNIT 3 - MFG W	1,295,429
S08	99000288	INSTALL EXCITATION FIELD BREAK	64,773
S08	99000290	BALANCE OF EXCITATION SYSTEM	129,542
S08	99036228	EXCITER UNIT 2	329,058
S08	99037514	EXCITER UNIT 1	16,589
S09	271311	#1 EXCITATION TRANSFORMER	46,117
S09	271324	#2 EXCITATION TRANSFORMER	46,117
S09	99000284	INSTALL EXCITATION TRANSFORMER	129,542
S09	99000285	BUILD DYKES AROUND EXCITATION	748
S10	99000404	INSTALL STATION SERVICE TRANSFORMER	151,872
S10	99000405	INSTALL STATION SERVICE TRANSFORMER	150,361
S13	272259	HRD STORM DRAINAGE	97,554
S13	99000035	STORM AND YARD DRAINAGE STAGE	203,907
S13	99000036	PLANT DRAINAGE MODIFICATIONS	170,821
S13	99000037	INSTALL SUB-SURFACE DRAINS STAGE I	3,288
S13	99003526	POWERHOUSE DRAINAGE SYSTEM	27,383
S14	99000422	INSTALL 250WATT STREET LIGHTS	736
S14	99000423	ADDITIONAL COSTS FOR STREET LIGHTS	348
S14	99023677	150 WATT HPS STREETLIGHTS	1,704
T03	99023662	FISHER SCIENTIFIC ISOTEMP OVEN	2,039
T05	99000409	INSTALL DISTRIBUTION TRANSFORMERS	3,883
T05	99000410	INSTALL POLE TYPE TRANSFORMERS	3,733
T05	99000411	ADDITIONAL COSTS FOR TRANSFORMERS	4,213
T05	99006829	50 KVA SINGLE PHASE NEUTRAL GROUNDING TRANSFORMERS	15,800
T07	99023680	WESTINGHOUSE 10 KVA POLE TRANSFORMERS	1,027

## Holyrood Synchronous Condenser Asset Listing - 2009

Unit of Property	Asset Number	Description	Net Depreciable Cost <sup>1</sup> \$
T07	99023682	WESTINGHOUSE 15 KVA POLE TYPE TRANSFORMER	376
T07	99023684	WESTINGHOUSE 15 KVA POLE TYPE TRANSFORMER	902
T07	99023687	GENERAL ELECTRIC 25 KVA POLE TYPE TRANSFORMER	2,305
T07	99027653	25KVA TRANSFORMERS	3,544
T09	6804	#1 TURB. LUBE OIL PURIFICATION	29,291
T09	7715	#2 TURB LUBE OIL PURIFICATION	29,291
T09	303295	ANTI-FOULING SYSTEM - UNIT 3	305,590
T09	303300	ANTI-FOULING SYSTEM - UNIT 1	305,590
T09	303301	ANTI-FOULING SYSTEM - UNIT 2	305,590
V01	7262	PLANT VACUUM CLEANING SYSTEM	23,574
V01	99000083	VACUUM CLEANING SYSTEM	48,877
W02	324332	ADD UV PROTECTION	15,475
W02	99000041	PORTABLE DOMESTIC WELL	1,783
W02	99000042	BALANCE OF WATER SUPPLY SYSTEM	9,746
W02	99000043	SUPPLY WATER TO PLANT	4,907
W02	99000044	INSTALL WATER PUMPS, VALVES, CABLES AND SWITCHGEAR	4,552
W03	7134	#1 C.W. INTAKE	58,106
W03	7146	#1 C.W. PUMP EAST	17,974
W03	7147	#1 C.W. PUMP WEST	17,974
W03	7703	#2 TURB/GEN COOLING SYSTEM	132,649
W03	8095	#2 C.W. INTAKE SYSTEM	58,106
W03	8106	#2 C.W. PUMP EAST	17,974
W03	8107	#2 C.W. PUMP WEST	17,974
W03	8819	#1 C.W. SCREEN WASH SYSTEM	4,500
W03	8821	#2 C.W. SCREEN WASH SYSTEM	4,500
W03	8823	#3 C.W. SCREEN WASH SYSTEM	15,556
W03	99000185	INSTALL FRESHWATER INLET SYST	544,666
W03	99000186	INSTALL FRESH WATER INLET SYST	85,211
W03	99000300	INSTALL 2 CIRCULATING WATER PUMPS UNIT 3	412,874
W03	99000306	INSTALL 2 INTAKE SCREEN & DRIVE STAGE III	248,487
W03	99000307	BALANCE OF CIRCULATING WATER SYSTEM	471,325
W03	99000308	ADDITIONAL COSTS FOR BALANCE OF VACUUM CLEANING SYSTEM	11,000
W03	99000309	BALANCE OF CIRCULATING WATER SYSTEM	1,525,492
W03	99000316	INSTALL TURBO GENERATION AUX COOLING SYSTEM	82,204
W03	99043192	BALANCE OF CIRCULATING WATER SYSTEM	471,325
W04	6719	#1 GENERAL SERVICE COOLING	32,854
W04	8132	#2 GENERAL SERVICE COOLING	32,854
W04	99003527	CONCRETE BASINS FOR W.W.T.S.	1,362,743
W04	99003528	CLARIFIER SYSTEM FOR W.W.T.S.	246,731
W04	99003529	CAUSTIC SODA STORAGE SYSTEM FOR W.W.T.S.	83,269
W04	99003530	FILTER PRESS SYSTEM AT W.W.T.S	257,890
W04	99003531	BALANCE OF WASTE WATER TREATMENT SYSTEM	771,579
W04	99026251	DOSING TANK & AGITATION SYSTEM	5,360