Question re Replacing Holyrood with New CCCTs

Cost of Refurbishing Holyrood

The Isolated Island model includes a variety of capital costs for maintaining Holyrood:

Cost Type	Total Cost (Jan 2012\$)	Year In Service	2012 NPV (7% discount rate)	Source Cells in PLF12 Iter1 CPW Analysis 2012Aug1.xlsx
Holyrood ESP – Units 1&2	366,903	2017	328,988	"Isolated" C83, H82, J82
Holyrood ESP – Unit 3	183,452	2017	164,797	"Isolated" C113, H112, J112
Holyrood Refurbishment1	212,881	2017	165,819	"Isolated" C173, H172, J172
Holyrood Low Nox Burners	19,471	2017	15,412	"Isolated" C203, H202, J202
Holyrood Refurbishment2	69,778	2022	43,161	"Isolated" C323
Holyrood Refurbishment3	101,710	2027	50,753	"Isolated" C413
Holyrood Refurbishment4	33,115	2032	12,950	"Isolated" C623
Total Cost:	987,310	Total NPV in 2012\$ at 7% discount rate:	781,880	

Cost of Three New CCCTs

The 2012 CPW analysis, "PLF12 Iter1 CPW Analysis 2012Aug1.xlsx", has two different prices for new CCCTs: \$261,895 (CCCT1) and \$292,521 (CCCT2) (both measured in January 2012 \$):

Cost Type	Total Cost (Jan 2012\$)	Year In Service	2012 NPV (7% discount rate)	Source Cells in PLF12 Iter1 CPW Analysis 2012Aug1.xlsx
CCCT1	261,895	2017	186,728	C593, C743, C1193, C1343
Cost of 3:	785,685	NPV of 3:	560,184	
CCCT2	292,521	2017	194,919	C653, C983, C1253
Total Cost of 3:	877,563	NPV of 3:	584,757.28	

Whichever cost is used, it seems that the capital cost of brand new CCCTs is lower.

New CCCTs would offer faster ramp times, allowing a higher wind penetration as outlined in the Hatch wind integration report, P57 at p. 31. They might also reduce future maintenance or refurbishment costs.