

























2012-10-22

DG3 Wind Assessment

Proposed 1100 MW Wind Farm Plan New Installed **Capital Cost** Year Item Capacity (Millions in 2012) 2014 100 MW Wind Installed at Both Locations \$489.0 200 MW 2015 100 MW Additional Wind Installed at Both \$489.0 400 MW Locations 2016 100 MW Additional Wind Installed at Both \$489.0 600 MW Locations \$489.0 800 MW 2017 100 MW Additional Wind Installed at Both Locations 2018 100 MW Additional Wind Installed at Both \$489.0 1000 MW Locations 100 MW Additional Wind at East Location \$244.5 1100 MW 2019 2012-10-22 14 **DG3 Wind Assessment** 

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		A REAL PROPERTY.	
	Year	ltem	Capital Cost (Millions in 2012\$)
Transmission Costs for 1100 MW Wind Farm Plan	2014	New Terminal Station for Avalon Wind Farm	\$10.0
		New Terminal Station for West Wind Farm	\$10.0
		8 x 230 kV Circuit Breakers	\$20.0
		126 km of 230 kV Transmission Line	\$75.6
		440 km of 345 kV Transmission Line	\$440
	2015	2 x 230 kV Circuit Breakers	\$5.0
		30 km of 230 kV Transmission Line	\$18
	2016	5 x 230 kV Circuit Breakers	\$12.5
		126 km of 230 kV Transmission Line	\$75.6
		440 km of 345 kV Transmission Line	\$440
	2017	4 x 230 kV Circuit Breakers	\$10.0
		30 km of 230 kV Transmission Line	\$18
	0010	1 x 230 kV Circuit Breaker	\$2.5
	2018	30 km of 230 kV Transmission Line	\$18
2012-10-22	DG3	Wind Assessment	

Year	Item	Capital Cost (Millions in 2012)
2014	Use Holyrood Unit #3 as a Synchronous Condenser	\$0.0
2015	Convert Holyrood Unit #1 to Synchronous Condenser	\$3.3
2016	Convert Holyrood Unit #2 to Synchronous Condenser	\$3.3
2017	Build 300 MVAr Synchronous Condenser	\$90.0
2018	Build 200 MVAr Synchronous Condenser	\$60.0
2019	Build 150 MVAr Synchronous Condenser	\$45.0























CPW Analysis Results							
CPW Cost Component	Cumulative Present Worth (Billions in 2012)						
	Interconnected Option	Isolated Island Option	Wind & Thermal Scenario	Wind & Battery Scenario			
Fixed Charges	\$0.32	\$2.56	\$7.27	\$14.61			
Operating Costs	\$0.26	\$0.75	\$1.29	\$1.18			
Fuel Costs	\$1.32	\$6.71	\$0.87	\$0.87			
Backup CT Fuel Costs	\$0	\$0	\$1.67	\$0			
Power Purchases	\$6.47	\$0.76	\$0.76	\$0.76			
TOTAL	\$8.37	\$10.78	\$11.86	\$17.43			
2012-10-22	DG3 Wind Assessment						







