

Plant name: **Byron Station, Unit 1**

Docket Number: **50-454**

1 The minimum financial assurance (MFA) estimate pursuant to 10 CFR 50.75(b) & (c):¹ \$477,516,000

Did the licensee identify the amount of estimated radiological funds? (Y/N) Y

2 The total amount of dollars accumulated at the end of the appropriate year: (see below)

Licensee:	% Owned:	Category:	Amount in Trust Fund:
Exelon Generation Company, LLC	100.00%	2	\$252,080,000

Total Trust Fund Balance **\$252,080,000**

3 Schedule of the annual amounts remaining to be collected: (provided/none) none

4 Assumptions used in determining rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections: (see below)

Rate of Return on Earnings	Escalation Rate	Rate(s) of Other Factors	Real Rate of Return	PUC Verified (Y/N)	Allowed through Decom (Y/N)	RAI Needed (Y/N)	Post-RAI		
							PUC Verified (Y/N)	Allowed through Decom (Y/N)	Rates Determined (Y/N)
			2.00%						

5 Any contracts upon which the licensee is relying? (Y/N) N

6 Any modifications to a licensee's method of providing decommissioning funding assurance? (Y/N) Y²

7 Any material changes to trust agreements? (Y/N) N

If a change has occurred, the reviewer will document on this sheet that a change has occurred and identify the reviewer who will evaluate the change: (see below)

¹ Licensee calculated MFA higher than NRC calculations. Justification, including factors used, were provided to NRC for review. No further review required.

² Financial assurance is provided by prepayment method, coupled with an external trust fund. No further review required.

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Date of Operation: **Month: 12 Day 31 Year: 2010**
Termination of Operations: **10 31 2024**

BWR/PWR	MWth	1986\$	ECI	Base Lx		Lx	Px	Latest Month Px	Base Px	Fx	Latest Month Fx	Base Fx		Ex		Bx
PWR	3586	\$105,000,000	111.3	2.08	0.65	2.32	1.676	191.4	114.2	3.049	250.0	82.0	0.13	2.253	0.22	12.28

NRC Minimum: **\$472,417,086** **Site Specific:** **\$604,059,000**

Licensee:	% Owned:	Category	Amount of NRC Minimum/Site Specific:	Amount in Trust Fund:
Exelon Generation Company, LLC	100.00%	2	\$604,059,000	\$252,080,000
			Total Fund Balance:	\$252,080,000

**Step 1:
Earnings Credit:**

Trust Fund Balance:	Real Rate of Return per year	Years Left in License	Total Earnings:	Does Licensee Pass:
\$252,080,000	2%	13.83	\$331,518,244	NO

**Step 2:
Accumulation:**

Value of Annuity per year (amount/See Annuity Sheet)	Real Rate of Return per year	Number of Annual Payments:	Total Annuity:
	2%		\$0
Total Annuity	Real Rate of Return per year	Years remaining after annuity	Total Step 2:
\$0	2%	13.83	\$0
			Total Step 1 + Step 2
			\$331,518,244
			Does Licensee Pass:
			NO

**Step 3:
Decom Period:**

Total Earnings:	Real Rate of Return per year	Decom Period:	Total Earnings for Decom:
\$331,518,244	2%	7	\$24,646,006

Total of Steps 1 thru 3:	Does Licensee Pass:	Shortfall:
\$356,164,249	NO	(\$247,894,751)

Signature: Shawn Harwell
 Date: 8/3/2011
 Signature: Aaron L. Szabo
 Date: 8/15/2011

Spreadsheet created by: Aaron Szabo, Shawn Harwell
 Formulas verified by: Clayton Pittiglio

Plant name: Byron Station, Unit 1 **Docket Number:** 50-454
Date of Operation: Month: 12 Day: 31 Year: 2010
Termination of Operations: 10 31 2024

If licensee is granted greater than 2% RRR

Step 4:

Earnings Credit:

Trust Fund Balance:	Real Rate of Return per year	Years Left in License	Total Earnings:	Does Licensee Pass:
\$252,080,000	2.00%	13.83	\$331,518,244	NO

Step 5:

Accumulation:

Value of Annuity per year	Real Rate of Return per year	Number of Annual Payments:	Total Annuity:
\$0	2.00%	0	\$0

Total Annuity	Real Rate of Return per year	Years remaining after annuity	Total Step 5
\$0	2.00%	13.83	\$0

Total Step 4 + Step 5	Does Licensee Pass:
\$331,518,244	NO

Step 6:

Decom Period:

Total Earnings:	Real Rate of Return per year	Decom Period:	Total Earnings for Decom:
\$331,518,244	2.00%	7	\$24,646,006

Total of Steps 4 thru 6:	Does Licensee Pass:	Shortfall:
\$356,164,249	NO	(\$247,894,751)

Signature: Shawn Harwell
 Date: 8/3/2011
 Signature: Aaron L. Szabo
 Date: 8/15/2011

SAFSTOR ANALYSIS

Name of Unit: **Byron, Unit 1**
Name of Licensee: **EGC**
Date of Termination of Operations **10** **31** **2024**
End of Operations Balance: **\$331,518,244**
Operating Life Real Rate of Return: **2.00%**
Decommissioning Real Rate of Return: **2.00%**

Year	Beginning Trust Fund Balance	Expense Per Year		Real Rate of Return	End of Year Trust Fund Balance
		Cost in 2010 dollars	Spent Fuel		
2024	\$330,398,243	\$7,946,000	N/A	2.00%	\$328,980,748
2025	\$328,980,748	\$52,446,000	N/A	2.00%	\$282,589,903
2026	\$282,589,903	\$17,361,000	N/A	2.00%	\$270,707,091
2027	\$270,707,091	\$2,789,000	N/A	2.00%	\$273,304,343
2028	\$273,304,343	\$2,796,000	N/A	2.00%	\$275,946,470
2029	\$275,946,470	\$2,789,000	N/A	2.00%	\$278,648,509
2030	\$278,648,509	\$3,411,000	N/A	2.00%	\$280,776,369
2031	\$280,776,369	\$3,716,000	N/A	2.00%	\$282,638,737
2032	\$282,638,737	\$3,726,000	N/A	2.00%	\$284,528,251
2033	\$284,528,251	\$3,716,000	N/A	2.00%	\$286,465,657
2034	\$286,465,657	\$3,716,000	N/A	2.00%	\$288,441,810
2035	\$288,441,810	\$3,716,000	N/A	2.00%	\$290,457,486
2036	\$290,457,486	\$3,726,000	N/A	2.00%	\$292,503,376
2037	\$292,503,376	\$3,716,000	N/A	2.00%	\$294,600,283
2038	\$294,600,283	\$3,716,000	N/A	2.00%	\$296,739,129
2039	\$296,739,129	\$3,716,000	N/A	2.00%	\$298,920,751
2040	\$298,920,751	\$3,726,000	N/A	2.00%	\$301,135,906
2041	\$301,135,906	\$3,716,000	N/A	2.00%	\$303,405,464
2042	\$303,405,464	\$3,716,000	N/A	2.00%	\$305,720,414
2043	\$305,720,414	\$3,692,000	N/A	2.00%	\$308,105,902
2044	\$308,105,902	\$3,702,000	N/A	2.00%	\$310,529,000
2045	\$310,529,000	\$3,692,000	N/A	2.00%	\$313,010,660
2046	\$313,010,660	\$3,692,000	N/A	2.00%	\$315,541,953
2047	\$315,541,953	\$3,692,000	N/A	2.00%	\$318,123,872
2048	\$318,123,872	\$3,702,000	N/A	2.00%	\$320,747,330
2049	\$320,747,330	\$3,692,000	N/A	2.00%	\$323,433,356
2050	\$323,433,356	\$3,692,000	N/A	2.00%	\$326,173,103
2051	\$326,173,103	\$3,692,000	N/A	2.00%	\$328,967,646
2052	\$328,967,646	\$3,702,000	N/A	2.00%	\$331,807,978
2053	\$331,807,978	\$3,692,000	N/A	2.00%	\$334,715,218
2054	\$334,715,218	\$3,692,000	N/A	2.00%	\$337,680,602
2055	\$337,680,602	\$3,692,000	N/A	2.00%	\$340,705,294
2056	\$340,705,294	\$3,702,000	N/A	2.00%	\$343,780,380
2057	\$343,780,380	\$3,692,000	N/A	2.00%	\$346,927,068
2058	\$346,927,068	\$3,692,000	N/A	2.00%	\$350,136,689
2059	\$350,136,689	\$3,692,000	N/A	2.00%	\$353,410,503

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2060	\$353,410,503	\$3,702,000	N/A	2.00%	\$356,739,693
2061	\$356,739,693	\$3,692,000	N/A	2.00%	\$360,145,567
2062	\$360,145,567	\$3,692,000	N/A	2.00%	\$363,619,558
2063	\$363,619,558	\$3,692,000	N/A	2.00%	\$367,163,030
2064	\$367,163,030	\$3,702,000	N/A	2.00%	\$370,767,270
2065	\$370,767,270	\$3,692,000	N/A	2.00%	\$374,453,695
2066	\$374,453,695	\$3,692,000	N/A	2.00%	\$378,213,849
2067	\$378,213,849	\$3,692,000	N/A	2.00%	\$382,049,206
2068	\$382,049,206	\$3,702,000	N/A	2.00%	\$385,951,171
2069	\$385,951,171	\$3,692,000	N/A	2.00%	\$389,941,274
2070	\$389,941,274	\$3,692,000	N/A	2.00%	\$394,011,179
2071	\$394,011,179	\$3,692,000	N/A	2.00%	\$398,162,483
2072	\$398,162,483	\$3,702,000	N/A	2.00%	\$402,386,713
2073	\$402,386,713	\$3,692,000	N/A	2.00%	\$406,705,527
2074	\$406,705,527	\$3,692,000	N/A	2.00%	\$411,110,717
2075	\$411,110,717	\$3,692,000	N/A	2.00%	\$415,604,012
2076	\$415,604,012	\$3,702,000	N/A	2.00%	\$420,177,072
2077	\$420,177,072	\$11,045,000	N/A	2.00%	\$417,425,163
2078	\$417,425,163	\$49,841,000	N/A	2.00%	\$375,434,257
2079	\$375,434,257	\$96,709,000	N/A	2.00%	\$285,266,852
2080	\$285,266,852	\$83,822,000	N/A	2.00%	\$206,311,969
2081	\$206,311,969	\$42,470,000	N/A	2.00%	\$167,543,508
2082	\$167,543,508	\$36,297,000	N/A	2.00%	\$134,234,408
2083	\$134,234,408	\$2,236,000	N/A	2.00%	\$134,660,737
2084	\$134,660,737	\$21,656,000	N/A	2.00%	\$115,481,391
2085	\$115,481,391	\$88,000	N/A	2.00%	\$117,702,139
2086	\$117,702,139	\$88,000	N/A	2.00%	\$119,967,302
2087	\$119,967,302	\$27,000	N/A	2.00%	\$119,744,377

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Date: 8/3/2011

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Date: 8/15/2011