

Nancy D. Israel Senior Counsel

May 21, 2021

By E-Filing

Mark D. Marini, Secretary Department of Public Utilities One South Station, 5th Floor Boston, MA 02110

Re: Distributed Energy Resource Planning and Assignment and Recovery of Costs for the Interconnection of Distributed Generation – D.P.U. 20-75

Dear Secretary Marini:

On behalf of Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid ("National Grid"), enclosed for filing in the above matter are National Grid's Responses to Information Requests EDC-2-4 and EDC-2-5. Each individual Information Request Response and attachments is submitted in a separate PDF file. In addition, both Information Request Responses with associated attachments are submitted as a single PDF file.

Thank you for your attention to this matter. Please contact me if you have any questions regarding this filing.

Sincerely,

Nancy D Ismel

Nancy D. Israel, Esq.

Enclosures

cc: Katie Zilgme, Hearing Officer

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Responses to the Department's Second Set of Information Requests Information Request EDC-2-4 May 21, 2021 H.O. Katie Zilgme Page 1 of 1

Information Request EDC-2-4

Request:

Refer to National Grid's response to EDC-1, at 1. Please provide a table with the total megawatt ("MW") of DG capacity that are currently interconnected to the substations that are part of each Group Study Region, with separate columns for facilities greater than or equal to 200 kW each and facilities less than 200 kW each.

Response:

See Attachment EDC-2-4.

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Responses to the Department's Second Set of Information Requests Attachment EDC-2-4 21-May-21

Group Study Area	Substation	Total MW Interconnected (≥ 200 kW)	Total MW Interconnected (< 200 kW)	Total MW Interconnected
Ayer-Clinton	Laurel Circle	14.926	2.649	17.575
Ayer-Clinton	Fitch Road	4.889	3.508	8.397
Ayer-Clinton	Ayer	13.381	3.690	17.071
Barre-Athol	Wendell Depot	16.380	2.792	19.172
Barre-Athol	Royalston	0.000	0.353	0.353
Barre-Athol	Chestnut Hill	16.013	3.455	19.468
Barre-Athol	Barre	18.876	2.996	21.872
Gardner-Winchendon	Westminster	6.018	1.518	7.536
Gardner-Winchendon	East Winchendon	22.188	1.915	24.103
Gardner-Winchendon	East Westminster	4.977	1.816	6.793
Gardner-Winchendon	Crystal Lake	40.956	2.806	43.762
Hopedale-West	Whitins Pond	21.645	5.687	27.332
Hopedale-West	Mendon	1.498	4.386	5.884
Hopedale-West	Uxbridge	29.077	6.010	35.087
Hopedale-West	Rocky Hill	0.883	2.963	3.846
Hopedale-West	Depot Street/Little Depot	8.824	7.020	15.844
Millbury-Grafton	Vernon Hill	10.617	1.238	11.855
Millbury-Grafton	Pondville	2.272	2.332	4.604
Millbury-Grafton	Millbury	17.352	9.953	27.305
Millbury-Grafton	Bloomingdale	0.799	2.843	3.642
MPL-East	Ware	9.906	2.337	12.243
MPL-East	Shearers Corner	2.000	0.445	2.445
MPL-East	Palmer 503	21.621	2.705	24.326
MPL-East	Little Rest Road	27.892	1.950	29.842
Shutesbury	Shutesbury	4.500	0.653	5.153
Spencer-Rutland	Treasure Valley	31.732	3.258	34.990
Spencer-Rutland	Meadow Street	19.676	2.461	22.137
Spencer-Rutland	Leicester	12.290	2.452	14.742
Spencer-Rutland	Lashaway	13.414	2.164	15.578
Webster-Sturbridge-Charlton	West Charlton	24.849	2.388	27.237
Webster-Sturbridge-Charlton	Snow Street	40.880	3.256	44.136
Webster-Sturbridge-Charlton	North Oxford	41.005	5.533	46.538
Webster-Sturbridge-Charlton	East Webster	9.383	5.420	14.803
	Totals:	510.719	104.952	615.671

Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid, D.P.U. 20-75 Responses to the Department's Second Set of Information Requests Exhibit: EDC-2-5 Date: May 21, 2021 H.O.: Katie Zilgme Page 1 of 2

Information Request EDC-2-5

Request:

Refer to National Grid's response to EDC-2, at 1. Please provide:

- (a) An updated bill impact estimate assuming all of the identified upgrades are constructed, but no distributed energy resources ultimately pay CIP fees to interconnect; and
- (b) An updated bill impact estimate assuming all capacity enabled by the upgrades identified is utilized by distributed energy resources over the next ten years.

Response:

- (a) See Attachments EDC-2-5-1 through EDC-2-5-5.
- (b) See Attachments EDC-2-5-6 through EDC-2-5-10.

For purposes of Attachments EDC-2-5-1 and EDC-2-5-6, the Company has continued to use its March 1, 2021 rates, which it used to calculate the high-level illustrative monthly bill impacts for a 500 kWh residential customer receiving Basic Service in Attachment EDC-2-1 submitted on April 6, 2021, to allow the Department to compare the illustrative bill impacts presented in this response to those presented in Information Request EDC-2. The Company has presented illustrative bill impacts associated with the revenue requirements associated with each of the assumed amortization periods of 10, 20, and 30 years consistent with those presented in Information Request EDC-2. The Company began the bill impact analysis using a monthly residential bill based on rates effective March 1, 2021 and determined each year's incremental increase in the illustrative factor to arrive at the illustrative incremental bill impact for each successive year.

Consistent with the Company's response to Information Request EDC-2, the illustrative bill impacts and illustrative revenue requirements presented in this response reflect those resulting from the Company's investment in distribution plant additions and cost of removal and exclude investments in transmission plant that may be required by the Company or its transmission affiliate, New England Power Company. In addition to resolving the open issues identified in the Company's response to Information Request EDC-5 submitted on April 6, 2021, the Company would need a complete estimate of all associated transmission upgrades and how they would be allocated between DG customers and distribution customers, and then would need to allocate costs to distribution rate classes based on a coincident peak allocator, consistent with the

Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid, D.P.U. 20-75 Responses to the Department's Second Set of Information Requests Exhibit: EDC-2-5 Date: May 21, 2021 H.O.: Katie Zilgme Page 2 of 2

allocation of transmission costs billed to the Company (on the basis of the Company's demand at the time of the system's peak).

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-1 Page 1 of 5 H.O. Zilgme

Massachusetts Electric Company Nantucket Electric Company Summary of Illustrative Bill Impacts - No CIP Fees 10, 20, and 30 Year Amortization

		Year 1	Year 2	Year 3	Year 4	Year 5
		(a)	(b)	(c)	(d)	(e)
(1)	Illustrative % Increase @ 10 Year Amortization	1.71%	0.80%	-0.03%	-0.16%	-0.15%
(2)	Illustrative % Increase @ 20 Year Amortization	1.41%	0.54%	0.06%	-0.08%	-0.08%
(3)	Illustrative % Increase @ 30 Year Amortization	1.31%	0.46%	0.08%	-0.06%	-0.06%

- (1) Page 2, Line (11)
- (2) Page 3, Line (11)
- (3) Page 4, Line (11)

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-1 Page 2 of 5 H.O. Zilgme

Massachusetts Electric Company Nantucket Electric Company Calculation of Illustrative Factor and Residential Bill Impact - No CIP Fees Assuming 10 Year Amortization

	-	Year 1	Year 2	Year 3	Year 4	Year 5
	-	(a)	(b)	(c)	(d)	(e)
(1)	Total Annual Recovery	\$67,026,944	\$98,573,918	\$97,476,483	\$91,205,866	\$85,268,707
(2)	Residential Distribution Revenue Allocator	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>
(3)	Total Allocated Residential Recovery	\$38,674,547	\$56,877,151	\$56,243,931	\$52,625,785	\$49,200,044
(4)	Forecasted Annual Residential kWh	8,111,041,508	<u>8,111,041,508</u>	<u>8,111,041,508</u>	<u>8,111,041,508</u>	<u>8,111,041,508</u>
(5)	Illustrative Annual Factor	\$0.00476	\$0.00701	\$0.00693	\$0.00648	\$0.00606
(6)	Illustrative Incremental Change in Factor	\$0.00476	\$0.00225	(\$0.00008)	(\$0.00045)	(\$0.00042)
(7)	Monthly Residential kWh Deliveries	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>
(8)	Year-Over-Year Illustrative Increase in Monthly Bill	\$2.38	\$1.13	(\$0.04)	(\$0.23)	(\$0.21)
(9)	Residential Monthly Bill at Start of Year	<u>\$139.56</u>	<u>\$141.94</u>	<u>\$143.07</u>	<u>\$143.03</u>	<u>\$142.80</u>
(10)	Illustrative Residential Monthly Bill	\$141.94	\$143.07	\$143.03	\$142.80	\$142.59
(11)	Illustrative % Increase	1.71%	0.80%	-0.03%	-0.16%	-0.15%

(1) Attachment EDC-2-5-2, Line 4

- (2) Currently effective R-1/R-2 Distribution Revenue Allocator percentage
- (3) Line (1) x Line (2)
- (4) Company forecast for for the furthest year in the Company's forecast (calendar year 2025)
- (5) Line $(3) \div$ Line (4), trucated to 5 decimal places
- (6) Line (5) Line (5) from prior year
- (7) 500 kWh
- (8) Line (6) x Line (7)
- (9) Year 1: Page 5; all other years: prior year Line 16
- (10) Line (8) + Line (9)
- (11) Line (8) ÷ Line (9)

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-1 Page 3 of 5 H.O. Zilgme

Massachusetts Electric Company Nantucket Electric Company Calculation of Illustrative Factor and Residential Bill Impact - No CIP Fees Assuming 20 Year Amortization

	-	Year 1	Year 2	Year 3	Year 4	Year 5
	-	(a)	(b)	(c)	(d)	(e)
(1)	Total Annual Recovery	\$55,442,749	\$77,102,942	\$79,644,821	\$76,516,336	\$73,449,907
(2)	Residential Distribution Revenue Allocator	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>
(3)	Total Allocated Residential Recovery	\$31,990,466	\$44,488,398	\$45,955,062	\$44,149,926	\$42,380,596
(4)	Forecasted Annual Residential kWh	8,111,041,508	8,111,041,508	<u>8,111,041,508</u>	8,111,041,508	<u>8,111,041,508</u>
(5)	Illustrative Annual Factor	\$0.00394	\$0.00548	\$0.00566	\$0.00544	\$0.00522
(6)	Illustrative Incremental Change in Factor	\$0.00394	\$0.00154	\$0.00018	(\$0.00022)	(\$0.00022)
(7)	Monthly Residential kWh Deliveries	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>
(8)	Year-Over-Year Illustrative Increase in Monthly Bill	\$1.97	\$0.77	\$0.09	(\$0.11)	(\$0.11)
(9)	Residential Monthly Bill at Start of Year	<u>\$139.56</u>	<u>\$141.53</u>	<u>\$142.30</u>	<u>\$142.39</u>	<u>\$142.28</u>
(10)	Illustrative Residential Monthly Bill	\$141.53	\$142.30	\$142.39	\$142.28	\$142.17
(11)	Illustrative % Increase	1.41%	0.54%	0.06%	-0.08%	-0.08%

(1) Attachment EDC-2-5-2, Line 8

- (2) Currently effective R-1/R-2 Distribution Revenue Allocator percentage
- (3) Line (1) x Line (2)
- (4) Company forecast for for the furthest year in the Company's forecast (calendar year 2025)
- (5) Line $(3) \div$ Line (4), trucated to 5 decimal places
- (6) Line (5) Line (5) from prior year
- (7) 500 kWh
- (8) Line (6) x Line (7)
- (9) Year 1: Page 5; all other years: prior year Line 16
- (10) Line (8) + Line (9)
- (11) Line $(8) \div$ Line (9)

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-1 Page 4 of 5 H.O. Zilgme

Massachusetts Electric Company Nantucket Electric Company Calculation of Illustrative Factor and Residential Bill Impact - No CIP Fees Assuming 30 Year Amortization

	-	Year 1	Year 2	Year 3	Year 4	Year 5
	-	(a)	(b)	(c)	(d)	(e)
(1)	Total Annual Recovery	\$51,447,238	\$69,446,384	\$72,804,307	\$70,442,828	\$68,143,406
(2)	Residential Distribution Revenue Allocator	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>
(3)	Total Allocated Residential Recovery	\$29,685,056	\$40,070,564	\$42,008,085	\$40,645,512	\$39,318,745
(4)	Forecasted Annual Residential kWh	<u>8,111,041,508</u>	<u>8,111,041,508</u>	<u>8,111,041,508</u>	<u>8,111,041,508</u>	8,111,041,508
(5)	Illustrative Annual Factor	\$0.00365	\$0.00494	\$0.00517	\$0.00501	\$0.00484
(6)	Illustrative Incremental Change in Factor	\$0.00365	\$0.00129	\$0.00023	(\$0.00016)	(\$0.00017)
(7)	Monthly Residential kWh Deliveries	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>
(8)	Year-Over-Year Illustrative Increase in Monthly Bill	\$1.83	\$0.65	\$0.12	(\$0.08)	(\$0.09)
(9)	Residential Monthly Bill at Start of Year	<u>\$139.56</u>	<u>\$141.39</u>	<u>\$142.04</u>	<u>\$142.16</u>	<u>\$142.08</u>
(10)	Illustrative Residential Monthly Bill	\$141.39	\$142.04	\$142.16	\$142.08	\$141.99
(11)	Illustrative % Increase	1.31%	0.46%	0.08%	-0.06%	-0.06%

(1) Attachment EDC-2-5-2, Line 12

- (2) Currently effective R-1/R-2 Distribution Revenue Allocator percentage
- (3) Line (1) x Line (2)
- (4) Company forecast for for the furthest year in the Company's forecast (calendar year 2025)
- (5) Line $(3) \div$ Line (4), trucated to 5 decimal places
- (6) Line (5) Line (5) from prior year
- (7) 500 kWh
- (8) Line (6) x Line (7)
- (9) Year 1: Page 5; all other years: prior year Line 16
- (10) Line (8) + Line (9)
- (11) Line $(8) \div$ Line (9)

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-1 Page 5 of 5 H.O. Zilgme

Massachusetts Electric Company Nantucket Electric Company Calculation of Current Monthly Residential Bill

		Effective	
(1)	500	March 1, 2021	Amount
		(a)	(b)
	Delivery Service		
(2)	Customer Charge		\$7.00
(3)	Base Distribution Charge	\$0.04906	
(4)	CapEx Factor	\$0.00352	
(5)	Basic Service Adjustment Factor	\$0.00105	
(6)	Residential Assistance Adjustment Factor	\$0.00488	
(7)	Storm Fund Replenishment Factor	\$0.00301	
(8)	Pension/PBOP Factor	\$0.00179	
(9)	Revenue Decoupling Mechanism Adjustment Factor	\$0.00255	
(10)	Attorney General Consulting Expense Factor	\$0.00003	
(11)	Solar Cost Adjustment Factor	\$0.00033	
(12)	Smart Grid Distribution Adjustment Factor	\$0.00008	
(13)	Net Metering Recovery Surcharge	\$0.01163	
(14)	Renewable Energy Recovery Factor	\$0.00075	
(15)	Tax Act Credit Factor	(\$0.00062)	
(16)	Vegetation Management Factor	\$0.00054	
(17)	Grid Modernization Factor	<u>\$0.00032</u>	
(18)	Total Distribution Energy Charge	\$0.07892	\$39.46
(19)	SMART Factor	\$0.00315	\$1.58
(19) (20)	Electric Vehicle Program Factor	\$0.00011	\$0.06
(20)	Transition Charge	(\$0.00104)	(\$0.52)
(21) (22)	Transmission Service Adjustment Factor	\$0.03858	\$19.29
(22)	Energy Efficiency Charge	\$0.02098	\$10.49
(23)	Renewables Charge	\$0.00050	<u>\$0.25</u>
(25)	Subtotal Delivery Charges	\$0.00050	\$77.61
(23)	Subtout Derivery charges		Φ77.01
	Supply Service		
(26)	Base Basic Service Charge	\$0.11965	\$59.83
(27)	Basic Service Admin Cost Factor	\$0.00011	\$0.06
(28)	Smart Grid Customer Cost Adjustment Factor	<u>\$0.00412</u>	<u>\$2.06</u>
(29)	Commodity Subtotal	\$0.12388	\$ <u>61.95</u>
(30)	Total		\$139.56

(a) M.D.P.U. No. 1-21-C

(b) Line (1) x Column (a), Lines (18) thru (28)

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-2 Page 1 of 1 H.O. Zilgme

Massachusetts Electric Company Distribution DG Capital - No CIP Fees

	-		Year 1	Year 2	Year 3	Year 4	Year 5
1 2 3	<u>10 Year Amortization</u> Annual Revenue Requirement on CapEx O&M related to capex	Attachment EDC-2-5-3, Page 1, Line 2 Attachment EDC-2-5-3, Page 1, Line 6	(a) \$47,927,444 \$19,099,500	(b) \$98,573,918 \$0	(c) \$97,476,483 \$0	(d) \$91,205,866 \$0	(e) \$85,268,707 \$0
4	Total Revenue Requirement		\$67,026,944	\$98,573,918	\$97,476,483	\$91,205,866	\$85,268,707
5 6 7	<u>20 Year Amortization</u> Annual Revenue Requirement on CapEx O&M related to capex	Attachment EDC-2-5-4, Page 1, Line 2 Attachment EDC-2-5-4, Page 1, Line 6	\$36,343,249 \$19,099,500	\$77,102,942 \$0	\$79,644,821 \$0	\$76,516,336 \$0	\$73,449,907 \$0
8	Total Revenue Requirement		\$55,442,749	\$77,102,942	\$79,644,821	\$76,516,336	\$73,449,907
9 10 11	<u>30 Year Amortization</u> Annual Revenue Requirement on CapEx O&M related to capex	Attachment EDC-2-5-5, Page 1, Line 2 Attachment EDC-2-5-5, Page 1, Line 6	\$32,347,738 \$19,099,500	\$69,446,384 \$0	\$72,804,307 \$0	\$70,442,828 \$0	\$68,143,406 \$0
12	Total Revenue Requirement		\$51,447,238	\$69,446,384	\$72,804,307	\$70,442,828	\$68,143,406

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-3 Page 1 of 5 H.O. Zilgme

Massachusetts Electric Company Distribution DG Capital - No CIP Fees Summary Illustrative Revenue Requirement - 10 Years

			Year 1	Year 2	Year 3	Year 4	Year 5
			(a)	(b)	(c)	(d)	(e)
1	Cumulative Net Historic Capital Adjustment						
2	Annual Revenue Requirement on CapEx	Page 2, Line (32)	\$47,927,444	\$98,573,918	\$97,476,483	\$91,205,866	\$85,268,707
4	Cumulative Net CapEx Adjustment		\$47,927,444	\$98,573,918	\$97,476,483	\$91,205,866	\$85,268,707
5 6	O&M related to capex		\$19,099,500	\$0	\$0	\$0	\$0
7 8	Total		\$67,026,944	\$98,573,918	\$97,476,483	\$91,205,866	\$85,268,707

Massachusetts Electric Company DG Capital Investment Recovery Illustration Illustrative Revenue Requirement - 10 Years

$ \begin{array}{ c c c c c c } \hline (b) & (c) & (c$		Year		1	2	<u>3</u>	4	<u>5</u>
				(a)	(b)	(c)	(d)	(e)
12 CLCCTP 50	(1)			\$496.587.000	\$0	\$0	\$0	\$0
Cit Comparing Port Removal Study 15,00 (10)								
Deferred Tax Calculation: (5) Composite Book Depreciation Rate Assume: 10 year 10.00% 1	(3)	Accum. Gross Distribution Plant Additions	PY Line (3) + CY Line (1) & (2)	\$496,587,000	\$496,587,000	\$496,587,000	\$496,587,000	\$496,587,000
(c) Comparise Book Depreciation Relation Assume 10 year 10.00% <th< td=""><td>(4)</td><td>Cumulative Cost of Removal</td><td></td><td>\$30,013,500</td><td>\$30,013,500</td><td>\$30,013,500</td><td>\$30,013,500</td><td>\$30,013,500</td></th<>	(4)	Cumulative Cost of Removal		\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500
Vinage Var Tax Depreciation: Page 3. Line (3) Sty 57,672,200 S89,385,660 S71,508,528 S57,206,822 S45,785,521 (6) Federal Tax Depreciation PY Line (7) + CY Line (6) 579,672,200 S89,385,660 S71,508,528 S57,206,822 S45,785,521 (7) Cumulative State Tax Depreciation PY Line (9) + CY Line (6) 579,672,200 S89,385,660 S71,508,528 S57,206,822 S45,785,521 (10) Book Depreciation PY Line (9) + CY Line (10) S24,529,330 S49,658,700		Deferred Tax Calculation:						
(i) (i) Pereint Tax Depreciation Page 3, Linc (1) (1) (2)	(5)	Composite Book Depreciation Rate	Assumes 10 year	10.00%	10.00%	10.00%	10.00%	10.00%
(7) Cumulative Federal Tax Depreciation PY Line (7) + CY Line (6) 579,672,200 \$169,057,860 \$224,0566,388 \$227,773,210 \$343,558,531 (8) State Tax Depreciation PY Line (7) + CY Line (6) 579,672,200 \$169,057,860 \$224,0566,388 \$227,773,210 \$343,558,531 (9) Cumulative State Tax Depreciation PY Line (7) + CY Line (6) \$79,672,200 \$169,057,860 \$224,0566,388 \$227,773,210 \$343,558,531 (10) Book Depreciation PY Line (7) + CY Line (10) \$24,829,350 \$164,057,800 \$24,656,700 \$169,657,700 \$122,046,750 \$123,047,700 \$120,045,381 (12) Cumulative State Book / Tax Timer Line (12) × Line (13) Eine (14) \$43,87,428 \$75,65,55 \$93,313,571 \$99,917,421 \$9,607,550 (14) Deferred State Tax Reserve Line (14) Line (14) \$44,824,850 \$16,419,638 \$122,967,700 \$12,0094,381 (15) Cumulative Federal Book / Tax Timer Line (14) Line (14) \$16,419,638 \$122,967,700 \$12,0094,381 (16) Deferred State Tax Reserve Line (14) Line (15) \$116,119,638 \$122,907,770 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
(a) State Tax Depreciation Fags 3, Line (40) S79.672.200 \$89.385.60 \$57.06.822 \$85.720.6822 \$85.735.321 (b) Cumulative State Tax Depreciation PY Line (9) + CY Line (8) \$79.672.200 \$89.385.60 \$540.653.88 \$229.773.210 \$84.358.501 (10) Book Depreciation Year 1: Line (3) x Line (5) Sympt (11) Cymulative State Tax Rate \$89.385.600 \$124.467.50 \$17.305.458 \$229.773.210 \$84.858.700 (11) Cumulative Book Depreciation Year 1: Line (3) x Line (10) \$24.829.350 \$49.658.700 \$161.6410.638 \$12.29.07.701 \$12.00.94.311 (12) Cumulative State Tax Rate Line (9) - Line (11) \$54.827.805 \$54.955.555 \$9.313.571 \$9.917.421 \$9.607.550 (13) Deferred State Tax Reserve Line (10) \$54.827.805 \$94.557.555 \$9.313.571 \$9.917.421 \$9.607.550 (14) Deferred Faderal Tax Reserve Line (17) Line (16) S54.827.805 \$94.567.810 \$11.61.647.503 \$12.00.994.311 (15) Came Base Calculation: Line (16) Line (16) Line (16) \$11.516.999 \$19.859.660 \$2	1.1							
(9) Cumulative State Tax Depreciation PY Line (9) + CY Line (8) \$79,672,200 \$109,057,860 \$240,565,388 \$297,773,210 \$343,558,531 (10) Book Depreciation Year 1: Line (3) + Line (15) Year 2: Line (3) + Line (16) \$24,829,350 \$59,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$549,658,700 \$49,658,700 \$49,658,700 \$500,675,000 \$510,619,638 \$123,967,760 \$120,0094,318 \$116,119,638 \$123,967,760 \$120,0094,318 \$116,119,638 \$123,967,760 \$120,0094,318 \$116,119,638 \$123,967,760 \$120,0094,318 \$116,119,638 \$123,967,760 \$120,0094,318 \$116,119,638 \$123,967,760 \$120,0094,318 \$116,119,638 \$123,967,760 \$1	(/)	Cumulative Federal Tax Depreciation	PY Line(7) + CY Line(6)	\$79,672,200	\$109,057,800	\$240,500,588	\$297,775,210	\$343,338,331
Year 1: Line (1) X Line (1) S 10%; Year 2 and beyond: Line (3) X Line (5) S44,859,350 S49,658,700 S49,658,	(8)	State Tax Depreciation	Page 3, Line (46)	\$79,672,200	\$89,385,660	\$71,508,528	\$57,206,822	\$45,785,321
	(9)	Cumulative State Tax Depreciation	PY Line (9) + CY Line (8)	\$79,672,200	\$169,057,860	\$240,566,388	\$297,773,210	\$343,558,531
(11) Cumulative Book Depreciation PY Line (10) $$24,829,550$ $$74,488,050$ $$124,146,750$ $$173,805,450$ $$223,2464,150$ (12) Cumulative Book / Tax Timer Line (9) - Line (11) $$54,822,950$ $$84,842,850$ $$90,4508,100$ $$116,419,638$ $$122,967,760$ $$122,097,760$ $$122,097,760$ $$120,094,31$ (14) Deferred State Tax Reserve Line (12) x Line (13) $$54,87,428$ $$57,565,585$ $$9,917,421$ $$9,607,550$ (14b) Net Deferred State Tax Reserve Line (17) - Line (11) $$54,887,428$ $$57,555,585$ $$9,917,421$ $$9,607,550$ (15) Cumulative Federal Book / Tax Timer Line (17) - Line (11) $$54,882,560$ $$9,498,810$ $$11,6149,638$ $$122,967,760$ $$120,094,311$ (16) Effective Tax Rate Line (15) x Line (16) $$54,822,560$ $$9,495,870,00$ $$10,609$ $$21,0009$ $$21,0009$ $$11,0009$ $$21,0009$ $$21,0009$ $$21,0009$ $$21,0009$ $$21,0009$ $$21,0009$ $$21,0009$ $$21,0009$ $$21,0009$ $$21,0009$ $$21,0009$ $$21,0009$								
(12) Cumulative State Book / Tax Timer Line (9) - Line (11) $554,842,850$ $594,569,810$ $5116,419,633$ $512,967,760$ $512,0094,381$ (13) Effective State Tax Rate Line (12) x Line (13) $554,842,850$ $594,569,810$ $5116,419,633$ $512,967,760$ $512,0094,381$ (14) Deberred State Tax Reserve Line (12) x Line (13) $534,387,428$ $57,565,585$ $593,313,571$ $599,917,421$ $59,607,550$ (15) Cumulative Federal Book / Tax Timer Line (17) - Line (11) $554,842,850$ $594,569,810$ $5116,419,638$ $512,2967,760$ $512,0094,381$ (16) Effective Tax Rate Line (17) - Line (11) $554,842,850$ $594,569,810$ $5116,419,638$ $512,2967,760$ $512,0094,381$ (16) Effective Tax Rate Line (17) - Line (11) $554,842,850$ $594,569,810$ $5116,419,638$ $512,20,94,381$ (16) Effective Tax Rate Line (16) > 51 Line (16) S116,510,599 $5116,510,598$ $512,0094,381$ (16) Effective Tax Rate If Line (14b) > 50, Line (16) $5116,510,599$ $512,0009,522,002,525$ $522,519,820$ (19) Less: Federal NOL Sum of Line (17) through Line (19) $5116,619,638$ $512,610,639$ $512,602,587,0$		*	•					
(1) Effective State Tax Rate 8.000% 8.00% 8.000% 8.000% 8.000% <t< td=""><td>(11)</td><td>Cumulative Book Depreciation</td><td>PY Line (11) + CY Line (10)</td><td>\$24,829,350</td><td>\$74,488,050</td><td>\$124,146,750</td><td>\$173,805,450</td><td>\$223,464,150</td></t<>	(11)	Cumulative Book Depreciation	PY Line (11) + CY Line (10)	\$24,829,350	\$74,488,050	\$124,146,750	\$173,805,450	\$223,464,150
(14) Deferred State Tax Reserve Line (12) x Line (13) (14) Less: State NOL FY18 NOL rue-up plus 75% of FY19 NOL per tax return 50 50 50 50 50 (14) Less: State NOL Line (14) plus Line (14a) 54,387,428 \$7,565,585 \$9,313,571 \$9,917,421 \$9,607,550 (15) Cumulative Federal Book / Tax Timer Line (17) - Line (11) $54,387,428$ \$57,565,585 \$9,313,571 \$9,917,421 \$9,607,550 (15) Cumulative Federal Book / Tax Timer Line (7) - Line (11) $54,384,280$ \$94,609,810 \$11,614,916,38 \$12,3967,760 \$120,094,381 (16) Effective Tax Raserve Line (15) x Line (16) S11,516,999 \$19,859,660 \$24,448,124 \$26,033,230 \$25,219,820 (19) Less: Federal NOL per tax return Sum of Line (17) through Line (19) S10,595,639 \$15,270,887 \$22,492,274 \$23,950,572 \$22,202,2757 \$22,202,2757 \$22,202,2757 \$22,202,2757 \$22,202,2757 \$22,202,2757 \$22,202,2757 \$22,202,2757 \$22,202,2757 \$22,202,2757 \$22,202,2757 \$22,202,2757 \$22,202,275 \$22,202,2757 \$22,202,2757	(12)	Cumulative State Book / Tax Timer	Line (9) - Line (11)	\$54,842,850	\$94,569,810	\$116,419,638	\$123,967,760	\$120,094,381
	(13)	Effective State Tax Rate		8.000%	8.000%	8.000%	8.000%	8.000%
(14a) Less: State NOL performetum 50 50 50 50 50 (14b) Net Deferred State Tax Reserve Line (14) plus Line (14a) \$4,387,428 \$7,565,585 \$9,313,571 \$9,917,421 \$9,907,550 (15) Effective Tax Rate Line (17) - Line (11) $54,487,428$ \$7,565,585 \$9,313,571 \$9,917,421 \$9,907,550 (15) Effective Tax Rate Line (17) - Line (11) $54,482,805$ \$94,569,810 \$116,419,638 \$121,000% \$22,492,274 \$23,950,572 \$23,202,235 \$23,950,572 \$23,950,572 \$23,950,572	(14)	Deferred State Tax Reserve		\$4,387,428	\$7,565,585	\$9,313,571	\$9,917,421	\$9,607,550
(14b) Net Deferred State Tax Reserve Line (14) plus Line (14a) $$4,387,428$ $$7,565,585$ $$9,313,571$ $$9,917,421$ $$9,607,550$ (15) Cumulative Federal Book / Tax Timer Line (7) - Line (11) $$54,482,850$ $$94,369,810$ $$116,419,638$ $$123,967,760$ $$120,0094$ $$21,00096$ $$21,00096$ $$21,00096$ $$21,00096$ $$21,00096$ $$21,00096$ $$22,033,230$ $$25,219,820$ Less: Federal deduction for Deferred State If Line (14b) > 50, Line (14b) * -21%, otherwise 50 $$11,816,999$ $$19,859,660$ $$24,448,124$ $$26,003,230$ $$25,219,820$ (19) Less: Federal NOL If Line (14b) > 50, Line (14b) * -21%, otherwise 50 $$11,816,999$ $$19,859,660$ $$24,448,124$ $$26,003,230$ $$25,219,820$ (21) Total Deferred Tax Reserve Line (14b) + Line (20) $$11,958,6773$ $$(51,585,700)$ $$496,587,000$ $$496,587,000$ \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,587,000 \$496,58			1 1	<u></u>	<u></u>	\$ 0	<u></u>	* •
(15) Cumulative Federal Book / Tax Timer Line (7) - Line (11) S54,842,850 S94,569,810 S116,419,638 S120,997,760 S120,994,381 (15) Cumulative Federal Tax Reserve Line (15) x Line (16) S1 S54,842,850 S94,569,800 S24,448,124 S26,035,230 S22,219,820 Less: Federal deduction for Deferred State If Line (14b) > 50, Line (14b) * -21%, otherwise 50 (S921,360) (S1,588,773) (S1,955,850) (S2,082,658) (S2,017,586) (19) Less: Federal NoL per tax return Sum of Line (17) through Line (19) S10,595,639 S18,270,887 S22,492,274 S23,950,572 S23,202,235 (21) Total Deferred Tax Reserve Line (14b) + Line (20) S14,983,067 S25,836,472 S31,805,845 S33,867,993 S32,809,785 Reat Base Claired Tax Reserve Line (21) - Line (41) Line (21) S14,983,067 S25,836,472 S31,805,845 S33,867,993 S32,809,785 S10 Sum of Line (21) - Line (41) Line (43) - Line (44) S10,15,00 S496,587,000 S496,587,000 S496,587,000 S496,587,000 S496,587,000 S496,587,000 S496,587,000 S496,587,000 <			*					
(16) Effective Tax Rate 21.000% 21.00%	(140)	The Defense State Tax Reserve	Line (14) plus Line (14a)	\$4,587,428	\$7,505,585	\$9,515,571	\$9,917,421	\$9,007,550
(17) Deferred Federal Tax Reserve Line (15) x Line (16) $$11,516,999$ $$19,859,660$ $$22,448,124$ $$226,033,230$ $$22,5219,820$ Less: Federal deduction for Deferred State If Line (14b) > 50, Line (14b) * -21%, otherwise \$0 (5921,360) (\$1,588,773) (\$1,955,850) (\$2,082,658) (\$2,017,586) (19) Less: Federal NOL pet tax return - \$0 \$0 \$0 \$0 (20) Net Deferred Federal Tax Reserve Line (17) through Line (19) \$10,595,639 \$18,270,887 \$22,492,274 \$23,950,572 \$23,202,235 (21) Total Deferred Tax Reserve Line (14b) + Line (20) \$14,983,067 \$25,836,472 \$31,805,845 \$33,867,993 \$32,809,785 (22) Gross Plant Additions Line (11) (\$49,6587,000 \$496,587,000			Line (7) - Line (11)					\$120,094,381
Less: Federal deduction for Deferred State If Line (14b) > 50, Line (14b) * -21%, otherwise 50 (\$921,360) (\$1,588,773) (\$1,955,850) (\$2,082,658) (\$2,017,586) (19) Less: Federal NOL pet tax return Sum of Line (17) through Line (19) $510,595,639$ $518,270,887$ $522,492,274$ $523,950,572$ $523,202,235$ (21) Total Deferred Tax Reserve Line (14b) + Line (20) $514,983,067$ $522,492,274$ $523,950,572$ $523,202,235$ (22) Total Deferred Tax Reserve Line (14b) + Line (20) $514,983,067$ $522,492,274$ $523,950,572$ $523,202,235$ (23) Gross Plant Additions Line (13) $5496,587,000$ $5496,587,000$ $5496,587,000$ $5496,587,000$ $5496,587,000$ $5496,587,000$ $5496,587,000$ $5496,587,000$ $5496,587,000$ $5496,587,000$ $5496,587,000$ $5496,587,000$ $5496,587,000$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ $530,013,500$ 5	· · ·							
(18) Taxes otherwise \$0 (\$921,360) (\$1,588,773) (\$1,955,850) (\$2,082,658) (\$2,017,586) (19) Less: Federal NOL per tax return $-$ \$0 \$0 \$0 \$0 \$0 (20) Net Deferred Federal Tax Reserve Line (17) through Line (19) $510,595,639$ \$18,270,887 \$22,492,274 \$23,950,572 \$23,202,235 (21) Total Deferred Tax Reserve Line (14b) + Line (20) \$14,983,067 \$25,836,472 \$31,805,845 \$33,867,993 \$32,809,785 (22) Gross Plant Additions Line (3) - Line (3) \$496,587,000 <td>(17)</td> <td>Deferred Federal Tax Reserve</td> <td>Line (15) X Line (16)</td> <td>\$11,516,999</td> <td>\$19,859,660</td> <td>\$24,448,124</td> <td>\$26,033,230</td> <td>\$25,219,820</td>	(17)	Deferred Federal Tax Reserve	Line (15) X Line (16)	\$11,516,999	\$19,859,660	\$24,448,124	\$26,033,230	\$25,219,820
(19) Less: Federal NOL (20) Net Deferred Federal Tax Reserve (20) Sum of Line (17) through Line (19) $-$ 50 50 50 50 (21) Total Deferred Tax Reserve Line (17) through Line (19) $$10,595,639$ $$18,270,887$ $$22,492,274$ $$23,950,572$ $$23,202,235$ (21) Total Deferred Tax Reserve Line (14b) + Line (20) $$14,983,067$ $$22,492,274$ $$23,950,572$ $$23,202,235$ (22) Gross Plant Additions Line (3) $$14,983,067$ $$25,836,472$ $$31,805,845$ $$33,867,993$ $$322,809,785$ (22) Gross Plant Additions Line (11) $$496,587,000$ \$496,587,000 \$496,587,00								
(19) Less: Federal NOL per fax return - S0 S0 S0 S0 (20) Net Deferred Faderal Tax Reserve Sum of Line (17) through Line (19) $$10,595,639$ $$18,270,887$ $$52,492,274$ $$523,950,572$ $$523,202,235$ (21) Total Deferred Tax Reserve Line (14b) + Line (20) $$$14,983,067$ $$$25,836,472$ $$$31,805,845$ $$$33,867,993$ $$$32,809,785$ Rate Base Calculation: (22) Gross Plant Additions Line (3) $$$496,587,000$ \$\$496,587,000 \$\$496,587,000 \$\$496,587,000 \$\$496,587,000 \$\$496,587,000 \$\$496,587,000 \$\$496,587,000 \$\$496,587,000 \$\$223,464,150) (\$\$12,416,750) (\$\$173,805,450) (\$\$223,464,150) (24) Deferred Tax Reserve - Line (21) (\$\$14,983,067) (\$\$25,836,472) (\$\$31,805,845) (\$\$33,867,993) (\$\$32,809,785) (25) Cumulative Cost of Removal - Line (21) (\$\$14,983,067) \$\$25,836,472 (\$\$31,805,845) (\$\$33,807,993) (\$\$32,809,785) (26) Year End Rate Base Sum of Line (26) + 2; Year 2 and beyond: (\$\$25,836,472 \$\$31,805,4700 \$\$30,013,500 \$\$30,013,500 \$\$30,013,500 \$\$30,013,500 \$\$30,013,500 \$\$30,013,500 \$\$30,01	(18)	Taxes		(\$921,360)	(\$1,588,773)	(\$1,955,850)	(\$2,082,658)	(\$2,017,586)
(20) Net Deferred Faderal Tax ReserveSum of Line (17) through Line (19) $$10,595,639$ $$18,270,887$ $$22,492,274$ $$23,950,572$ $$23,202,235$ (21) Total Deferred Tax ReserveLine (14b) + Line (20) $$14,983,067$ $$22,836,472$ $$31,805,845$ $$33,867,993$ $$32,809,785$ (22) Gross Plant AdditionsLine (3)- Line (11) $$496,587,000$ \$496,587,000\$496,587,000\$496,587,000\$496,587,000(24) Deferred Tax Reserve- Line (11)(524,829,350) $(574,488,050)$ $(5124,146,750)$ $(5173,805,450)$ $(5223,464,150)$ (25) Cumulative Cost of Removal- Line (4)Sum of Lines (22) through (25) $$30,013,500$ $$30,013,500$ $$30,013,500$ $$30,013,500$ $$30,013,500$ (26) Year End Rate BaseSum of Line (26) + 2; Year 2 and beyond: (PY Line (26) + CY Line (26)) + 2Year 1: Line (26) + 2; Year 2 and beyond: (PY Line (26) + CY Line (26)) + 2 $$243,394,041$ $$456,532,030$ $$398,461,941$ $$344,787,481$ $$2294,626,811$ (29) Return and TaxesLine (27) x Line (28) Line (27) x Line (28) 	(10)	Lass: Fadaral NOI			\$0	\$0	\$0	\$0
Rate Base Calculation: (22) Gross Plant Additions Line (3) \$496,587,000 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 <td>· · ·</td> <td></td> <td>*</td> <td>\$10,595,639</td> <td></td> <td></td> <td></td> <td>\$23,202,235</td>	· · ·		*	\$10,595,639				\$23,202,235
Rate Base Calculation: (22) Gross Plant Additions Line (3) \$496,587,000 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
(22) Gross Plant AdditionsLine (3) $$496,587,000$ <th< td=""><td>(21)</td><td>Total Deferred Tax Reserve</td><td>Line (14b) + Line (20)</td><td>\$14,983,067</td><td>\$25,836,472</td><td>\$31,805,845</td><td>\$33,867,993</td><td>\$32,809,785</td></th<>	(21)	Total Deferred Tax Reserve	Line (14b) + Line (20)	\$14,983,067	\$25,836,472	\$31,805,845	\$33,867,993	\$32,809,785
(23) Accumulated Book Depreciation - Line (11) (\$24,829,350) (\$124,146,750) (\$173,805,450) (\$223,464,150) (24) Deferred Tax Reserve - Line (21) (\$14,983,067) (\$25,836,472) (\$31,805,845) (\$33,867,993) (\$32,809,785) (25) Cumulative Cost of Removal - Line (4) \$30,013,500 \$30,013,5		Rate Base Calculation:						
(24) Deferred Tax Reserve - Line (21) (\$14,983,067) (\$25,836,472) (\$31,805,845) (\$33,867,993) (\$32,809,785) (25) Cumulative Cost of Removal - Line (4) $$30,013,500$ <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
(25) Cumulative Cost of Removal - Line (4) $$30,013,500$ $$30,013,500$ $$30,013,500$ $$30,013,500$ $$30,013,500$ $$30,013,500$ (26) Year End Rate Base Sum of Lines (22) through (25) Sum of Lines (22) through (25) $$$486,788,083$ $$$426,275,978$ $$370,647,905$ $$$318,927,057$ $$$270,326,566$ Revenue Requirement Calculation: (27) Average Rate Base Year 1: Line (26) + 2; Year 2 and beyond: $$$243,394,041$ $$$456,532,030$ $$$394,41,941$ $$$344,787,481$ $$$294,626,811$ (28) Pre-Tax ROR Page 5 Line (27) x Line (28) $$$23,098,094$ $$$43,324,890$ $$37,814,038$ $$$32,720,332$ $$$27,960,084$ (30) Book Depreciation Line (10) \$\$24,829,350 \$\$49,658,700								
(26) Year End Rate Base Sum of Lines (22) through (25) $$$486,788,083$ $$$426,275,978$ $$$370,647,905$ $$$318,927,057$ $$$270,326,566$ Revenue Requirement Calculation: (27) Average Rate Base Year 1: Line (26) + 2; Year 2 and beyond: (PY Line (26) + CY Line (26)) + 2 Page 5 $$$243,394,041$ \$\$456,532,030 \$\$398,461,941 \$\$344,787,481 \$\$294,626,811 (28) Pre-Tax ROR Page 5 9.49%	· · ·		. ,					
Revenue Requirement Calculation: Year 1: Line (26) \div 2; Year 2 and beyond: (PY Line (26) \div CY Line (26)) \div 2 \$243,394,041 \$456,532,030 \$398,461,941 \$344,787,481 \$294,626,811 (27) Average Rate Base (PY Line (26) \div CY Line (26)) \div 2 \$243,394,041 \$456,532,030 \$398,461,941 \$344,787,481 \$294,626,811 (28) Pre-Tax ROR Page 5 9,49% <t< td=""><td>· · ·</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	· · ·							
Year 1: Line (26) \div 2; Year 2 and beyond: (PY Line (26) \div CY Line (26)) \div 2 \$243,394,041 \$456,532,030 \$398,461,941 \$344,787,481 \$294,626,811 (28) Pre-Tax ROR Page 5 9.49% 9.4	(20)	Tear Life Rate Base	Sum of Lines (22) unough (23)	\$100,700,005	\$720,273,276	\$570,047,505	\$516,727,057	\$270,520,500
(27) Average Rate Base (PY Line (26) + CY Line (26)) $\div 2$ \$243,394,041 \$456,532,030 \$398,461,941 \$344,787,481 \$294,626,811 (28) Pre-Tax ROR Page 5 9.49%		Revenue Requirement Calculation:						
(28) Pre-Tax ROR Page 5 9.49%	(07)			6242 204 0 **	B456 533 033	\$200 4(1 0 ft	\$244 FOF 4C	\$204 (2(0···
(29) Return and Taxes Line (27) x Line (28) \$23,098,094 \$43,324,890 \$37,814,038 \$32,720,332 \$27,960,084 (30) Book Depreciation Line (10) \$24,829,350 \$49,658,700 \$49,658,700 \$49,658,700 \$49,658,700 Year 1: \$0, Year 2: (PY Line (3) - PY Line (11)) x Prop Tax Rate ÷ 2, Year 3 and beyond: (PY Line (3) - PY Line (11)) x Prop Tax Rate ÷ 1/ \$0 \$5,590,328 \$10,003,745 \$8,826,834 \$7,649,923 (31) Property Tax expense Tax Rate 1/ \$0 \$5,590,328 \$10,003,745 \$8,826,834 \$7,649,923		5						
(30) Book Depreciation Line (10) \$24,829,350 \$49,658,700 \$49,658,700 \$49,658,700 Year 1: \$0, Year 2: (PY Line (3) - PY Line ((11)) x Prop Tax Rate ÷ 2, Year 3 and beyond: (PY Line (3) - PY Line (11)) x Prop Tax Rate ÷ 2, Year 3 and beyond: (PY Line (3) - PY Line (11)) x Prop Tax Rate ÷ 1/ \$0 \$5,590,328 \$10,003,745 \$8,826,834 \$7,649,923 (31) Property Tax expense Tax Rate 1/ \$0 \$5,590,328 \$10,003,745 \$8,826,834 \$7,649,923			-					
(11)) x Prop Tax Rate ÷ 2, Year 3 and beyond: (PY Line (3) - PY Line (11)) x Prop (31) Property Tax expense Tax Rate 1/ \$0 \$5,590,328 \$10,003,745 \$8,826,834 \$7,649,923 (32) Annual Revenue Requirement								
(11)) x Prop Tax Rate ÷ 2, Year 3 and beyond: (PY Line (3) - PY Line (11)) x Prop (31) Property Tax expense Tax Rate 1/ \$0 \$5,590,328 \$10,003,745 \$8,826,834 \$7,649,923 (32) Annual Revenue Requirement			Year 1: \$0, Year 2: (PY Line (3) - PY Line					
(31) Property Tax expense Tax Rate 1/ \$0 \$5,590,328 \$10,003,745 \$8,826,834 \$7,649,923 (32) Annual Revenue Requirement			(11)) x Prop Tax Rate ÷ 2, Year 3 and					
(32) Annual Revenue Requirement	(21)	Dromonty Toy ave and		/ **	65 500 200	610.002.745	60 00C 00 C	PT (10 000
(32) Annual Kevenue Requirement Sum of Lines (29) through (31) \$47,927,444 \$98,573,918 \$97,476,483 \$91,205,866 \$85,268,707	(-)	1 2 1	i ax răte l	50	\$3,390,328	\$10,003,745	\$8,820,834	\$7,049,923
	(32)	Annual Revenue Requirement	Sum of Lines (29) through (31)	\$47,927,444	\$98,573,918	\$97,476,483	\$91,205,866	\$85,268,707

1/ Property Tax Rate Calculation

 'ear Plant in Service
 \$4,554,343,860
 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 6, Page 1

 Rate Year Accumulated Depreciation
 (\$1,783,103,879)
 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 6, Page 1

 Rate Year Net Plant in Service
 \$2,771,239,981

Rate Year Property Tax Expense \$65,650,673 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 7, Page 1

Property Tax Rate 2.37%

Massachusetts Electric Company DG Capital Investment Recovery Illustration Calculation of Tax Depreciation and Repairs Deduction - 10 Years

Year			<u>1</u> (a)	$\frac{2}{(b)}$	<u>3</u> (c)	4 (d)	<u>5</u> (e)
Federal Tax Depreciation Capital Repairs Deduction (1) Plant Additions	Page 2, Line (3)	1/	\$496,587,000	(0)	(0)	(0)	
(2) Capital Repairs Deduction Rate(3) Capital Repairs Deduction	Tax Dept Line (1) x Line (2)	1/	0.00% \$0				
Bonus Depreciation (4) Plant Additions (5) Less Capital Repairs Deduction	Line (1) Line (3)		\$496,587,000 \$0				
(6) Plant Additions Net of Capital Repairs Deduction	Line (4) - Line (5)		\$496,587,000				
Remaining Tax Depreciation (7) Plant Additions (8) Less Capital Repairs Deduction (9) Less Bonus Depreciation (10) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (11) Remaining Plant Additions Subject to 10 YR MACRS Tax Depreciation (12) 10 YR MACRS Tax Depreciation Rates (13) Total Tax Depreciation on 10 YR MACRS assets	Line (1) Line (3) Per Tax Dept Line (7) - (8) - (9) - (10) IRS Publication 946, Table A-1 Line (11) x Line (12)	1/	\$496,587,000 \$0 \$0 \$496,587,000 10.00% \$49,658,700	\$496,587,000 18.00% \$89,385,660	\$496,587,000 14.40% \$71,508,528	\$496,587,000 11.52% \$57,206,822	\$496,587,000 <u>9.22%</u> \$45,785,321
(14) Plant Additions Subject to 39 Yr Straight Line Depreciation(15) 39 YR SL Depreciation Rates	Line (10) IRS Publication 946	_	\$0 2.5641%	\$0 2.5641%	\$0 2.5641%	\$0 2.5641%	\$0 2.5641%
(16) Total Tax Depreciation on 39 YR SL assets	Line (14) * Line (15)		\$0	\$0	\$0	\$0	\$0
(17) Total Tax Depreciation and Repairs Deduction	Sum of Lines (3), (13), (16)	-	\$49,658,700	\$89,385,660	\$71,508,528	\$57,206,822	\$45,785,321
(18) Includable Cost of Removal	Page 2, Line (4)		\$30,013,500	\$0	\$0	\$0	\$0
(19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal	Line (17) through (18)	=	\$79,672,200	\$89,385,660	\$71,508,528	\$57,206,822	\$45,785,321
State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction	Line (1) Line (2) Line (20) x Line (21)	_	\$496,587,000 0.00% \$0				
Remaining Tax Depreciation (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (26) Remaining Plant Additions Subject to 10 YR MACRS Tax Depreciation (27) 10 YR MACRS Tax Depreciation Rates (28) Total Tax Depreciation on 10 YR MACRS assets	Line (20) Line (22) Per Tax Dept Line (23) - Line (24) - Line (25) IRS Publication 946, Table A-1 Line (26) x Line (27)	1/	\$496,587,000 \$0 \$496,587,000 10.0000% \$49,658,700	\$496,587,000 18.0000% \$89,385,660	\$496,587,000 14.4000% \$71,508,528	\$496,587,000 11.5200% \$57,206,822	\$496,587,000 9.2200% \$45,785,321
 (29) Plant Additions Subject to 39 Yr Straight Line Depreciation (30) 39 YR SL Depreciation Rates (31) Total Tax Depreciation on 39 YR SL assets 	Line (25) IRS Publication 946 Line (29) * Line (30)	_	\$0 2.5641% \$0	\$0 2.5641% \$0	\$0 2.5641% \$0	\$0 2.5641% \$0	\$0 2.5641% \$0
(32) Total Tax Depreciation and Repairs Deduction	Line (22) + Line (28) + Line (31)		\$49,658,700	\$89,385,660	\$71,508,528	\$57,206,822	\$45,785,321
(33) Includable Cost of Removal	Page 2, Line (4)		\$30,013,500	\$0	\$0	\$0	\$0
(34) Total State Tax Depreciation, Repairs Deduction and Cost of Removal	Line (32) + Line (33)	=	\$79,672,200	\$89,385,660	\$71,508,528	\$57,206,822	\$45,785,321

1/ Per FY 2019 Tax return

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-3 Page 4 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration MACRS Table

MACRS DEPRECIATION BY CLASS OF PROPERTY

Year	3-year	5-year	7-year	10-year	15-year	20-year
1	33.33%	20.00%	14.29%	10.00%	5.00%	3.75%
2	44.45	32	24.49	18%	9.5	7.219
3	14.81	19.2	17.49	14.40%	8.55	6.677
4	7.41	11.52	12.49	11.52%	7.7	6.177
5		11.52	8.93*	9.22%	6.93	5.713
6		5.76	8.92	7.37%	6.23	5.285
7			8.93	6.55%	5.9	4.888
8			4.46	6.55%	5.9	4.522
9				6.56%	5.91	4.462
10				6.55%	5.9	4.461
11				3.28%	5.9	4.462
12					5.9	4.461
13					5.91	4.462
14					5.9	4.461
15					5.91	4.462
16					2.95	4.461
17						4.462
18						4.461
19						4.462
20						4.461
21						2.231

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-3 Page 5 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration Cost of Capital

	Description	Capital Structure (a)	Cost Rate (b)	Weighted Return (c) = (a) x (b)	Taxes (d)	$\frac{\text{Pre-tax}}{\text{Return}}$ $(e) = (c) + (d)$
1 2	Long Term Debt	46.43%	5.22% 1/	2.42%		2.42%
3 4	Preferred Stock	0.08%	4.44% 1/	0.00%		0.00%
5 6	Total Common Equity	53.49%	9.60% 3/	5.14%	1.93% 2/	7.07%
7	Total Capitalization	100.00%		7.56%	1.93%	9.49%

- 1/ Company's Effective Cost of Long Term Debt and Preferred Stock
- 2/ Line 5(c) /(1-0.2732) Line 5(c)
- 3/ Per Docket No. 18-150 final order Page 497

	From Jan 1,
Effective Tax Rate	2018
Federal Tax Rate	21.00%
State Tax Rate	8.00%
Federal Deduction for State Income Taxes	1.68%
State Tax, net of Federal Deduction	6.32%
Federal Tax Rate	21.00%
Effective Tax rate	27.32%

Massachusetts Electric Company Distribution DG Capital - No CIP Fees Summary Illustrative Revenue Requirement - 20 years

			Year 1	Year 2	Year 3	Year 4	Year 5
			(a)	(b)	(c)	(d)	(e)
1	Cumulative Net Historic Capital Adjustment						
2	Annual Revenue Requirement on Year 1 CapEx	Page 2, Line (32)	\$36,343,249	\$77,102,942	\$79,644,821	\$76,516,336	\$73,449,907
3							
4	Cumulative Net CapEx Adjustment		\$36,343,249	\$77,102,942	\$79,644,821	\$76,516,336	\$73,449,907
5							
6	O&M		\$19,099,500	\$0	\$0	\$0	\$0
7							
8	Total		\$55,442,749	\$77,102,942	\$79,644,821	\$76,516,336	\$73,449,907
			-				

Massachusetts Electric Company DG Capital Investment Recovery Illustration Illustrative Revenue Requirement - 20 Years

\$0 \$0 \$496,587,000 \$30,013,500 \$35,848,616 \$84,484,129 \$35,848,616 \$84,484,129 \$35,848,616 \$84,484,129 \$24,829,350 \$37,244,025 \$47,240,104 \$.000% \$3,779,208	\$0 \$0 \$496,587,000 \$30,013,500 5.00% \$33,157,114 \$117,641,243 \$33,157,114 \$117,641,243 \$24,829,350 \$62,073,375 \$55,567,868 <u>8.000%</u> \$4,445,429 <u>\$0</u>	\$0 \$0 \$496,587,000 \$30,013,500 5.00% \$30,674,179 \$148,315,422 \$30,674,179 \$148,315,422 \$30,674,179 \$148,315,422 \$24,829,350 \$86,902,725 \$61,412,697 <u>8.000%</u> \$4,913,016 <u>\$0</u>	\$0 \$0 \$496,587,000 \$30,013,500 5.00% \$28,370,015 \$176,685,437 \$28,370,015 \$176,685,437 \$28,370,015 \$176,685,437 \$24,829,350 \$111,732,075 \$64,953,362 <u>8.000%</u> \$5,196,269 <u>\$0</u>
\$496,587,000 \$30,013,500 5.00% \$35,848,616 \$84,484,129 \$35,848,616 \$84,484,129 \$24,829,350 \$37,244,025 \$47,240,104 8.000% \$3,779,208 \$0	\$496,587,000 \$30,013,500 \$33,157,114 \$117,641,243 \$33,157,114 \$117,641,243 \$24,829,350 \$62,073,375 \$55,567,868 8.000% \$4,445,429 \$0	\$496,587,000 \$30,013,500 \$30,674,179 \$148,315,422 \$30,674,179 \$148,315,422 \$24,829,350 \$86,902,725 \$61,412,697 <u>8.000%</u> \$4,913,016 \$0 \$4,913,016	\$496,587,000 \$30,013,500 \$28,370,015 \$176,685,437 \$28,370,015 \$176,685,437 \$24,829,350 \$111,732,075 \$64,953,362 <u>8,000%</u> \$5,196,269 \$0
\$30,013,500 5.00% \$35,848,616 \$84,484,129 \$35,848,616 \$84,484,129 \$24,829,350 \$37,244,025 \$47,240,104 8.000% \$3,779,208	\$30,013,500 5.00% \$33,157,114 \$117,641,243 \$33,157,114 \$117,641,243 \$24,829,350 \$62,073,375 \$55,567,868 8.000% \$4,445,429 \$0	\$30,013,500 5.00% \$30,674,179 \$148,315,422 \$30,674,179 \$148,315,422 \$24,829,350 \$86,902,725 \$61,412,697 8.000% \$4,913,016 \$0 \$4,913,016	\$30,013,500 5.00% \$28,370,015 \$176,685,437 \$28,370,015 \$176,685,437 \$24,829,350 \$111,732,075 \$64,953,362 8.000% \$5,196,269 \$0
5.00% \$35,848,616 \$84,484,129 \$35,848,616 \$84,484,129 \$24,829,350 \$37,244,025 \$47,240,104 8.000% \$3,779,208	5.00% \$33,157,114 \$117,641,243 \$33,157,114 \$117,641,243 \$24,829,350 \$62,073,375 \$55,567,868 <u>8.000%</u> \$4,445,429 \$0	5.00% \$30,674,179 \$148,315,422 \$30,674,179 \$148,315,422 \$24,829,350 \$86,902,725 \$61,412,697 <u>8.000%</u> \$4,913,016 \$4,913,016	5.00% \$28,370,015 \$176,685,437 \$28,370,015 \$176,685,437 \$24,829,350 \$111,732,075 \$64,953,362 <u>8.000%</u> \$5,196,269 \$0
\$35,848,616 \$84,484,129 \$35,848,616 \$84,484,129 \$24,829,350 \$37,244,025 \$47,240,104 <u>8.000%</u> \$3,779,208	\$33,157,114 \$117,641,243 \$33,157,114 \$117,641,243 \$24,829,350 \$62,073,375 \$55,567,868 <u>8.000%</u> \$4,445,429 \$0	\$30,674,179 \$148,315,422 \$30,674,179 \$148,315,422 \$24,829,350 \$86,902,725 \$61,412,697 <u>8.000%</u> \$4,913,016 \$0 \$4,913,016	\$28,370,015 \$176,685,437 \$28,370,015 \$176,685,437 \$24,829,350 \$111,732,075 \$64,953,362 <u>8,000%</u> \$5,196,269 \$0
\$35,848,616 \$84,484,129 \$35,848,616 \$84,484,129 \$24,829,350 \$37,244,025 \$47,240,104 <u>8.000%</u> \$3,779,208	\$33,157,114 \$117,641,243 \$33,157,114 \$117,641,243 \$24,829,350 \$62,073,375 \$55,567,868 <u>8.000%</u> \$4,445,429 \$0	\$30,674,179 \$148,315,422 \$30,674,179 \$148,315,422 \$24,829,350 \$86,902,725 \$61,412,697 <u>8.000%</u> \$4,913,016 \$0 \$4,913,016	\$28,370,015 \$176,685,437 \$28,370,015 \$176,685,437 \$24,829,350 \$111,732,075 \$64,953,362 <u>8,000%</u> \$5,196,269 \$0
\$84,484,129 \$35,848,616 \$84,484,129 \$24,829,350 \$37,244,025 \$47,240,104 <u>8,000%</u> \$3,779,208	\$117,641,243 \$33,157,114 \$117,641,243 \$24,829,350 \$62,073,375 \$55,567,868 8.000% \$4,445,429 \$0	\$148,315,422 \$30,674,179 \$148,315,422 \$24,829,350 \$86,902,725 \$61,412,697 <u>8.000%</u> \$4,913,016 \$4,913,016	\$176,685,437 \$28,370,015 \$176,685,437 \$24,829,350 \$111,732,075 \$64,953,362 8.000% \$5,196,269 \$0
\$84,484,129 \$35,848,616 \$84,484,129 \$24,829,350 \$37,244,025 \$47,240,104 <u>8,000%</u> \$3,779,208	\$117,641,243 \$33,157,114 \$117,641,243 \$24,829,350 \$62,073,375 \$55,567,868 8.000% \$4,445,429 \$0	\$148,315,422 \$30,674,179 \$148,315,422 \$24,829,350 \$86,902,725 \$61,412,697 <u>8.000%</u> \$4,913,016 \$4,913,016	\$176,685,437 \$28,370,015 \$176,685,437 \$24,829,350 \$111,732,075 \$64,953,362 8.000% \$5,196,269 \$0
\$35,848,616 \$84,484,129 \$24,829,350 \$37,244,025 \$47,240,104 <u>8.000%</u> \$3,779,208 \$0	\$33,157,114 \$117,641,243 \$24,829,350 \$62,073,375 \$55,567,868 <u>8.000%</u> \$4,445,429 \$0	\$30,674,179 \$148,315,422 \$24,829,350 \$86,902,725 \$61,412,697 <u>8.000%</u> \$4,913,016 \$0 \$4,913,016	\$28,370,015 \$176,685,437 \$24,829,350 \$111,732,075 \$64,953,362 <u>8,000%</u> \$5,196,269 \$0
\$84,484,129 \$24,829,350 \$37,244,025 \$47,240,104 <u>8.000%</u> \$3,779,208 \$0	\$117,641,243 \$24,829,350 \$62,073,375 \$55,567,868 <u>8.000%</u> \$4,445,429 \$0	\$148,315,422 \$24,829,350 \$86,902,725 \$61,412,697 <u>8.000%</u> \$4,913,016 <u>\$0</u> \$4,913,016	\$176,685,437 \$24,829,350 \$111,732,075 \$64,953,362 <u>8.000%</u> \$5,196,269 \$0
\$24,829,350 \$37,244,025 \$47,240,104 <u>8.000%</u> \$3,779,208 \$0	\$24,829,350 \$62,073,375 \$55,567,868 8.000% \$4,445,429 \$0	\$24,829,350 \$86,902,725 \$61,412,697 <u>8.000%</u> \$4,913,016 \$0 \$4,913,016	\$24,829,350 \$111,732,075 \$64,953,362 <u>8,000%</u> \$5,196,269 \$0
\$37,244,025 \$47,240,104 8.000% \$3,779,208 \$0	\$62,073,375 \$55,567,868 <u>8,000%</u> \$4,445,429 \$0	\$86,902,725 \$61,412,697 8.000% \$4,913,016 \$0 \$4,913,016	\$111,732,075 \$64,953,362 <u>8.000%</u> \$5,196,269 \$0
\$37,244,025 \$47,240,104 8.000% \$3,779,208 \$0	\$62,073,375 \$55,567,868 <u>8,000%</u> \$4,445,429 \$0	\$86,902,725 \$61,412,697 8.000% \$4,913,016 \$0 \$4,913,016	\$111,732,075 \$64,953,362 <u>8.000%</u> \$5,196,269 \$0
\$47,240,104 8.000% \$3,779,208 \$0	\$55,567,868 8.000% \$4,445,429 \$0	\$61,412,697 8.000% \$4,913,016 \$0 \$4,913,016	\$64,953,362 8.000% \$5,196,269 \$0
8.000% \$3,779,208 \$0	8.000% \$4,445,429 \$0	8.000% \$4,913,016 \$0 \$4,913,016	8.000% \$5,196,269 \$0
\$3,779,208 \$0	\$4,445,429 \$0	\$4,913,016 \$0 \$4,913,016	\$5,196,269 \$0
\$0	\$0	\$0 \$4,913,016	\$0
		\$4,913,016	
		\$4,913,016	
\$3 779 208	\$4,445,429		\$5,196,269
\$5,775,200			
\$47,240,104	\$55,567,868	\$61,412,697	\$64,953,362
21.000%	21.000%	21.000%	21.000%
\$9,920,422	\$11,669,252	\$12,896,666	\$13,640,206
(\$793,634)	(\$933,540)	(\$1,031,733)	(\$1,091,216)
\$0	\$0	\$0	\$0
\$9,126,788	\$10,735,712	\$11,864,933	\$12,548,990
\$12,905,996	\$15,181,141	\$16,777,949	\$17,745,259
\$496,587,000	\$496,587,000	\$496,587,000	\$496,587,000
(\$37,244,025)	(\$62,073,375)	(\$86,902,725)	(\$111,732,075)
(\$12,905,996)	(\$15,181,141)	(\$16,777,949)	(\$17,745,259)
\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500
\$476,450,479	\$449,345,984	\$422,919,826	\$397,123,166
	¢4/2 000 221	6426 122 005	6410.001.407
\$400.270.285			\$410,021,496 9.49%
\$490,370,385 9 49%			\$38,911,040
9.49%		\$24,829,350	\$24,829,350
	\$24,829,550		
9.49% \$46,536,150	\$24,829,330		
9.49% \$46,536,150	\$24,829,330		
9.49% \$46,536,150	\$10,886,429	\$10,297,973	\$9,709,517
9.49% \$46,536,150 \$24,829,350		\$10,297,973 \$76,516,336	\$9,709,517 \$73,449,907
	9.49% \$46,536,150	<u>9.49%</u> <u>9.49%</u> \$46,536,150 \$43,929,042	9.49% 9.49% 9.49% \$46,536,150 \$43,929,042 \$41,389,013

 Rate Year Plant in Service
 \$4,554,343,860
 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 6, Page 1

 Rate Year Accumulated Depreciation
 (\$1,783,103,879)
 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 6, Page 1

 Rate Year Net Plant in Service
 \$2,771,239,981

Rate Year Property Tax Expense \$65,650,673 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 7, Page 1

Property Tax Rate 2.37%

Massachusetts Electric Company DG Capital Investment Recovery Illustration

Do Capital investment Recovery industration	
Calculation of Tax Depreciation and Repairs Deduction - 20 Years	

Year			1 (a)	<u>2</u> (b)	<u>3</u> (c)	4 (d)	<u>5</u> (e)
Federal Tax Depreciation Capital Repairs Deduction (1) Plant Additions (2) Capital Repairs Deduction Rate (3) Capital Repairs Deduction	Page 2, Line (3) Tax Dept Line (1) x Line (2)	1/	\$496,587,000 0.00% \$0	(6)		(0)	
Bonus Depreciation (4) Plant Additions (5) Less Capital Repairs Deduction (6) Plant Additions Net of Capital Repairs Deduction	Line (1) Line (3) Line (4) - Line (5)	-	\$496,587,000 \$0 \$496,587,000				
Remaining Tax Depreciation (7) Plant Additions (8) Less Capital Repairs Deduction (9) Less Bonus Depreciation (10) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (11) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (12) 20 YR MACRS Tax Depreciation Rates (13) Total Tax Depreciation on 20 YR MACRS assets	Line (1) Line (3) Line (6) Per Tax Dept Line (7) - (8) - (9) - (10) IRS Publication 946, Table A-1 Line (11) x Line (12)	1/ _	\$496,587,000 \$0 \$0 \$496,587,000 3.7500% \$18,622,013	\$496,587,000 7.2190% \$35,848,616	\$496,587,000 6.6770% \$33,157,114	\$496,587,000 6.1770% \$30,674,179	\$496,587,000 5.7130% \$28,370,015
 (14) Plant Additions Subject to 39 Yr Straight Line Depreciation (15) 39 YR SL Depreciation Rates (16) Total Tax Depreciation on 39 YR SL assets 	Line (10) IRS Publication 946 Line (14) * Line (15)	-	\$0 2.5641% \$0	\$0 2.5641% \$0	\$0 2.5641% \$0	\$0 2.5641% \$0	\$0 2.5641% \$0
(17) Total Tax Depreciation and Repairs Deduction	Sum of Lines (3), (13), (16)	_	\$18,622,013	\$35,848,616	\$33,157,114	\$30,674,179	\$28,370,015
(18) Includable Cost of Removal	Page 2, Line (4)		\$30,013,500	\$0	\$0	\$0	\$0
(19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal	Line (17) through (18)	=	\$48,635,513	\$35,848,616	\$33,157,114	\$30,674,179	\$28,370,015
State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction	Line (1) Line (2) Line (20) x Line (21)	-	\$496,587,000 0.00% \$0				
Remaining Tax Depreciation (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (26) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (27) 20 YR MACRS Tax Depreciation Rates (28) Total Tax Depreciation on 20 YR MACRS assets	Line (20) Line (22) Per Tax Dept Line (23) - Line (24) - Line (25) IRS Publication 946, Table A-1 Line (26) x Line (27)	1/	\$496,587,000 \$0 \$496,587,000 3.7500% \$18,622,013	\$496,587,000 7.2190% \$35,848,616	\$496,587,000 6.6770% \$33,157,114	\$496,587,000 <u>6.1770%</u> \$30,674,179	\$496,587,000 <u>5.7130%</u> \$28,370,015
 (29) Plant Additions Subject to 39 Yr Straight Line Depreciation (30) 39 YR SL Depreciation Rates (31) Total Tax Depreciation on 39 YR SL assets 	Line (25) IRS Publication 946 Line (29) * Line (30)	_	\$0 2.5641% \$0	\$0 2.5641% \$0	\$0 2.5641% \$0	\$0 2.5641% \$0	\$0 2.5641% \$0
(32) Total Tax Depreciation and Repairs Deduction	Line (22) + Line (28) + Line (31)	_	\$18,622,013	\$35,848,616	\$33,157,114	\$30,674,179	\$28,370,015
(33) Includable Cost of Removal	Page 2, Line (4)	_	\$30,013,500	\$0	\$0	\$0	\$0
(34) Total State Tax Depreciation, Repairs Deduction and Cost of Removal	Line (32) + Line (33)	-	\$48,635,513	\$35,848,616	\$33,157,114	\$30,674,179	\$28,370,015

1/ Per FY 2019 Tax return

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-4 Page 4 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration MACRS Table

MACRS DEPRECIATION BY CLASS OF PROPERTY

Year	3-year	5-year	7-year	10-year	15-year	20-year
1	33.33%	20.00%	14.29%	10.00%	5.00%	3.75%
2	44.45	32	24.49	18	9.5	7.219
3	14.81	19.2	17.49	14.4	8.55	6.677
4	7.41	11.52	12.49	11.52	7.7	6.177
5		11.52	8.93	9.22	6.93	5.713
6		5.76	8.92	7.37	6.23	5.285
7			8.93	6.55	5.9	4.888
8			4.46	6.55	5.9	4.522
9				6.56	5.91	4.462
10				6.55	5.9	4.461
11				3.28	5.9	4.462
12					5.9	4.461
13					5.91	4.462
14					5.9	4.461
15					5.91	4.462
16					2.95	4.461
17						4.462
18						4.461
19						4.462
20						4.461
21						2.231

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-4 Page 5 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration Cost of Capital

	Description	Capital Structure (a)	Cost Rate (b)	$\frac{\text{Weighted}}{\text{Return}}$ $(c) = (a) \times (b)$	Taxes (d)	$\frac{\text{Pre-tax}}{\text{Return}}$ $(e) = (c) + (d)$
1 2	Long Term Debt	46.43%	5.22% 1/	2.42%		2.42%
- 3 4	Preferred Stock	0.08%	4.44% 1/	0.00%		0.00%
5 6	Total Common Equity	53.49%	9.60% 3/	5.14%	1.93% 2/	7.07%
7	Total Capitalization	100.00%		7.56%	1.93%	9.49%

1/ Company's Effective Cost of Long Term Debt and Preferred Stock

2/ Line 5(c) /(1-0.2732) - Line 5(c)

3/ Per Docket No. 18-150 final order Page 497

	From Jan 1,
Effective Tax Rate	2018
Federal Tax Rate	21.00%
State Tax Rate	8.00%
Federal Deduction for State Income Taxes	1.68%
State Tax, net of Federal Deduction	6.32%
Federal Tax Rate	21.00%
Effective Tax rate	27.32%

Massachusetts Electric Company Distribution DG Capital - No CIP Fees Summary Illustrative Revenue Requirement - 30 years

			Year 1	Year 2	Year 3	Year 4	Year 5
			(a)	(b)	(c)	(d)	(e)
1	Cumulative Net Historic Capital Adjustment						
2	Annual Revenue Requirement on Year 1 CapEx	Page 2, Line (32)	\$32,347,738	\$69,446,384	\$72,804,307	\$70,442,828	\$68,143,406
3							
4	Cumulative Net CapEx Adjustment		\$32,347,738	\$69,446,384	\$72,804,307	\$70,442,828	\$68,143,406
5							
6	O&M		\$19,099,500	\$0	\$0	\$0	\$0
7							
8	Total		\$51,447,238	\$69,446,384	\$72,804,307	\$70,442,828	\$68,143,406

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-5 Page 2 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration Illustrative Revenue Requirement - 30 Years

	Year		1	2	3	$\frac{4}{1}$	5
(1)	Depreciable Plant Additions Gross Distribution Plant Additions		(a) \$496,587,000	(b) \$0	(c) \$0	(d) \$0	(e) \$0
. ,	CIP/CIAC	-	\$0	\$0	\$0	\$0	\$0
(3)	Accum. Gross Distribution Plant Additions	PY Line (3) + CY Line (1) & (2)	\$496,587,000	\$496,587,000	\$496,587,000	\$496,587,000	\$496,587,000
(4)	Cumulative Cost of Removal		\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500
	Deferred Tax Calculation:						
(5)	Composite Book Depreciation Rate	Assumes 30 year	3.33%	3.33%	3.33%	3.33%	3.33%
(0)	Vintage Year Tax Depreciation:		\$40 (25 512	£25.040.010	622 157 114	\$20 (74 170	\$29.270.015
· · ·	Federal Tax Depreciation Cumulative Federal Tax Depreciation	Page 3, Line (31) PY Line (7) + CY Line (6)	\$48,635,513 \$48,635,513	\$35,848,616 \$84,484,129	\$33,157,114 \$117,641,243	\$30,674,179 \$148,315,422	\$28,370,015 \$176,685,437
()	Culturative redetat Tax Depreciation	$11 \operatorname{Eme}(7) + C1 \operatorname{Eme}(6)$	\$48,055,515	\$04,404,129	\$117,041,245	\$140,515,422	3170,085,457
(8)	State Tax Depreciation	Page 3, Line (46)	\$48,635,513	\$35,848,616	\$33,157,114	\$30,674,179	\$28,370,015
(9)	Cumulative State Tax Depreciation	PY Line (9) + CY Line (8)	\$48,635,513	\$84,484,129	\$117,641,243	\$148,315,422	\$176,685,437
		Year 1: Line (3) x Line (5) x 50%; Year 2 and					
. ,	Book Depreciation	beyond: Line (3) x Line (5)	\$8,276,450	\$16,552,900	\$16,552,900	\$16,552,900	\$16,552,900
(11)	Cumulative Book Depreciation	PY Line (11) + CY Line (10)	\$8,276,450	\$24,829,350	\$41,382,250	\$57,935,150	\$74,488,050
· · ·	Cumulative State Book / Tax Timer Effective State Tax Rate	Line (9) - Line (11)	\$40,359,063 8.000%	\$59,654,779 8.000%	\$76,258,993 8.000%	\$90,380,272 8.000%	\$102,197,387 8.000%
	Deferred State Tax Reserve	Line (12) x Line (13)	\$3,228,725	\$4,772,382	\$6,100,719	\$7,230,422	\$8,175,791
		FY18 NOL true-up plus 75% of FY19 NOL					
(14a)	Less: State NOL	per tax return	\$0	\$0	\$0	\$0	\$0
(14b)	Net Deferred State Tax Reserve	Line (14) plus Line (14a)	\$3,228,725	\$4,772,382	\$6,100,719	\$7,230,422	\$8,175,791
(15)	Cumulative Federal Book / Tax Timer	Line (7) - Line (11)	\$40,359,063	\$59,654,779	\$76,258,993	\$90,380,272	\$102,197,387
(-)	Effective Tax Rate	<u> </u>	21.000%	21.000%	21.000%	21.000%	21.000%
(17)	Deferred Federal Tax Reserve	Line (15) x Line (16)	\$8,475,403	\$12,527,504	\$16,014,389	\$18,979,857	\$21,461,451
	Less: Federal deduction for Deferred State	If Line (14b) > \$0, Line (14b) * -21%,					
(18)	Taxes	otherwise \$0	(\$678,032)	(\$1,002,200)	(\$1,281,151)	(\$1,518,389)	(\$1,716,916)
(10)		FY18 NOL true-up plus 75% of FY19 NOL		^	^	<u></u>	60
· · ·	Less: Federal NOL Net Deferred Federal Tax Reserve	per tax return Sum of Line (17) through Line (19)	\$7,797,371	\$0 \$11,525,304	\$0 \$14,733,238	\$0 \$17,461,468	\$0 \$19,744,535
(20)	Net Deletted Federal Tax Reserve	Sum of Line (17) through Line (19)	\$7,797,371	\$11,525,504		\$17,401,408	\$19,744,555
(21)	Total Deferred Tax Reserve	Line (14b) + Line (20)	\$11,026,096	\$16,297,686	\$20,833,957	\$24,691,890	\$27,920,326
	Rate Base Calculation:						
(22)	Gross Plant Additions	Line (3)	\$496,587,000	\$496,587,000	\$496,587,000	\$496,587,000	\$496,587,000
	Accumulated Book Depreciation	- Line (11)	(\$8,276,450)	(\$24,829,350)	(\$41,382,250)	(\$57,935,150)	(\$74,488,050)
· · ·	Deferred Tax Reserve	- Line (21)	(\$11,026,096)	(\$16,297,686)	(\$20,833,957)	(\$24,691,890)	(\$27,920,326)
	Cumulative Cost of Removal	- Line (4)	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500
(25)	Year End Rate Base	Sum of Lines (22) through (25)	\$507,297,954	\$485,473,464	\$464,384,293	\$443,973,460	\$424,192,124
	Revenue Requirement Calculation:						
(26)	Average Rate Base	Year 1: Line (26) ÷ 2; Year 2 and beyond: (PY Line (26) + CY Line (26)) ÷ 2	\$253,648,977	\$496,385,709	\$474,928,879	\$454,178,876	\$434,082,792
	Pre-Tax ROR	Page 5	9.49%	9.49%	9.49%	9.49%	9.49%
	Return and Taxes	Line (27) x Line (28)	\$24,071,288	\$47,107,004	\$45,070,751	\$43,101,575	\$41,194,457
	Book Depreciation	Line (10)	\$8,276,450	\$16,552,900	\$16,552,900	\$16,552,900	\$16,552,900
		Year 1: \$0, Year 2: (PY Line (3) - PY Line					
		(11)) x Prop Tax Rate \div 2, Year 3 and beyond:					
	D		60	RE 707 400	£11 100 (EC	\$10 799 252	\$10.206.040
(30)	Property Tax expense	(PY Line (3) - PY Line (11)) x Prop Tax Rate 1/	\$0	\$5,786,480	\$11,180,656	\$10,788,353	\$10,396,049
. ,	Annual Revenue Requirement	(PY Line (3) - PY Line (11)) x Prop 1ax Rate 1/ Sum of Lines (29) through (31)	\$0	\$69,446,384	\$72,804,307	\$70,442,828	\$68,143,406

1/ Property Tax Rate Calculation

Year Plant in Service \$4,554,343,860 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 6, Page 1

 Rate Year Accumulated Depreciation
 (\$1,783,103,879)
 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 6, Page 1

 Rate Year Net Plant in Service
 \$2,771,239,981

Rate Year Property Tax Expense \$65,650,673 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 7, Page 1

Property Tax Rate 2.37%

Massachusetts Electric Company DG Capital Investment Recovery Illustration Calculation of Tax Depreciation and Repairs Deduction -30 Years

Year			1 (a)	2 (b)	<u>3</u> (c)	4 (d)	<u>5</u> (e)
Federal Tax Depreciation Capital Repairs Deduction (1) Plant Additions (2) Capital Repairs Deduction Rate (3) Capital Repairs Deduction	Page 2, Line (3) Tax Dept Line (1) x Line (2)	1/	\$496,587,000 0.00% \$0	()	()	(5)	0
Bonus Depreciation (4) Plant Additions (5) Less Capital Repairs Deduction (6) Plant Additions Net of Capital Repairs Deduction	Line (1) Line (3) Line (4) - Line (5)	-	\$496,587,000 \$0 \$496,587,000				
Remaining Tax Depreciation (7) Plant Additions (8) Less Capital Repairs Deduction (9) Less Bonus Depreciation (10) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (11) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (12) 20 YR MACRS Tax Depreciation Rates (13) Total Tax Depreciation on 20 YR MACRS assets	Line (1) Line (3) Line (6) Per Tax Dept Line (7) - (8) - (9) - (10) IRS Publication 946, Table A-1 Line (11) x Line (12)	1/	\$496,587,000 \$0 \$0 \$496,587,000 3.7500% \$18,622,013	\$496,587,000 7.2190% \$35,848,616	\$496,587,000 <u>6.6770%</u> \$33,157,114	\$496,587,000 6.1770% \$30,674,179	\$496,587,000 5.7130% \$28,370,015
 Plant Additions Subject to 39 Yr Straight Line Depreciation 39 YR SL Depreciation Rates Total Tax Depreciation on 39 YR SL assets 	Line (10) IRS Publication 946 Line (14) * Line (15)	_	\$0 2.5641% \$0	\$0 2.5641% \$0	\$0 2.5641% \$0	\$0 2.5641% \$0	\$0 2.5641% \$0
(17) Total Tax Depreciation and Repairs Deduction	Sum of Lines (3), (13), (16)	_	\$18,622,013	\$35,848,616	\$33,157,114	\$30,674,179	\$28,370,015
(18) Includable Cost of Removal							
(10) Includable Cost of Removal	Page 2, Line (4)	-	\$30,013,500	\$0	\$0	\$0	\$0
(19) Includable Cost of Removal(19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal	Page 2, Line (4) Line (17) through (18)	=	\$30,013,500 \$48,635,513	\$0 \$35,848,616	\$0 \$33,157,114	\$0 \$30,674,179	\$0 \$28,370,015
	0, 0,	=					
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate 	Line (17) through (18) Line (1) Line (2)		\$48,635,513 \$496,587,000 0.00%				
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction Remaining Tax Depreciation (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (26) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (27) 20 YR MACRS Tax Depreciation Rates 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) Line (22) Per Tax Dept Line (23) - Line (24) - Line (25) IRS Publication 946, Table A-1	- - 1/	\$496,587,000 0.00% \$0 \$496,587,000 \$0 \$496,587,000 \$0 \$496,587,000 \$0 \$496,587,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$35,848,616 \$496,587,000 7.2190%	\$33,157,114 \$496,587,000 6.6770%	\$30,674,179 \$496,587,000 6.1770%	\$28,370,015 \$496,587,000 5.7130%
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction Remaining Tax Depreciation (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (26) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (27) 20 YR MACRS Tax Depreciation Rates (28) Total Tax Depreciation on 20 YR MACRS assets (29) Plant Additions Subject to 39 Yr Straight Line Depreciation (30) 39 YR SL Depreciation Rates 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) Line (22) Per Tax Dept Line (23) - Line (24) - Line (25) IRS Publication 946, Table A-1 Line (26) x Line (27) Line (25) IRS Publication 946	- - 1/	\$496,587,000 0.00% \$496,587,000 \$0 \$496,587,000 \$0 \$496,587,000 \$0 \$496,587,000 \$18,622,013 \$0 2.5641%	\$35,848,616 \$496,587,000 7.2190% \$35,848,616 \$0 2.5641%	\$33,157,114 \$496,587,000 6.6770% \$33,157,114 \$0 2.5641%	\$30,674,179 \$496,587,000 6.1770% \$30,674,179 \$0 2.5641%	\$28,370,015 \$496,587,000 5.7130% \$28,370,015 \$0 2.5641%
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction Remaining Tax Depreciation (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (26) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (27) 20 YR MACRS Tax Depreciation Rates (28) Total Tax Depreciation on 20 YR MACRS assets (29) Plant Additions Subject to 39 Yr Straight Line Depreciation (30) 39 YR SL Depreciation Rates (31) Total Tax Depreciation on 39 YR SL assets 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) Line (20) Per Tax Dept Line (23) - Line (24) - Line (25) IRS Publication 946, Table A-1 Line (26) x Line (27) Line (25) IRS Publication 946 Line (29) * Line (30)	- - - -	\$496,587,000 0.00% \$0 \$496,587,000 \$0 \$496,587,000 3.7500% \$18,622,013 \$0 2.5641% \$0	\$35,848,616 \$496,587,000 7.2190% \$35,848,616 \$0 2.5641% \$0	\$33,157,114 \$496,587,000 6.6770% \$33,157,114 \$0 2.5641% \$0	\$30,674,179 \$496,587,000 6.1770% \$30,674,179 \$0 2.5641% \$0	\$28,370,015 \$496,587,000 5.7130% \$28,370,015 \$0 2.5641% \$0

1/ Per FY 2019 Tax return

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-5 Page 4 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration MACRS Table

MACRS DEPRECIATION BY CLASS OF PROPERTY

Year	3-year	5-year	7-year	10-year	15-year	20-year
1	33.33%	20.00%	14.29%	10.00%	5.00%	3.75%
2	44.45	32	24.49	18	9.5	7.219
3	14.81	19.2	17.49	14.4	8.55	6.677
4	7.41	11.52	12.49	11.52	7.7	6.177
5		11.52	8.93	9.22	6.93	5.713
6		5.76	8.92	7.37	6.23	5.285
7			8.93	6.55	5.9	4.888
8			4.46	6.55	5.9	4.522
9				6.56	5.91	4.462
10				6.55	5.9	4.461
11				3.28	5.9	4.462
12					5.9	4.461
13					5.91	4.462
14					5.9	4.461
15					5.91	4.462
16					2.95	4.461
17						4.462
18						4.461
19						4.462
20						4.461
21						2.231

Massachusetts Electric Company DG Capital Investment Recovery Illustration Cost of Capital

	Description	Capital Structure (a)	Cost Rate (b)	Weighted Return (c) = (a) x (b)	Taxes (d)	$\frac{\text{Pre-tax}}{\text{Return}}$ $(e) = (c) + (d)$
1 2	Long Term Debt	46.43%	5.22% 1/	2.42%		2.42%
3 4	Preferred Stock	0.08%	4.44% 1/	0.00%		0.00%
5 6	Total Common Equity	53.49%	9.60% 3/	5.14%	1.93% 2/	7.07%
7	Total Capitalization	100.00%		7.56%	1.93%	9.49%

1/ Company's Effective Cost of Long Term Debt and Preferred Stock

2/ Line 5(c) /(1-0.2732) - Line 5(c)

3/ Per Docket No. 18-150 final order Page 497

Effective Tax Rate	From Jan 1, 2018
Federal Tax Rate	21.00%
State Tax Rate	8.00%
Federal Deduction for State Income Taxes	1.68%
State Tax, net of Federal Deduction	6.32%
Federal Tax Rate	21.00%
Effective Tax rate	27.32%

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-6 Page 1 of 5 H.O. Zilgme

Massachusetts Electric Company Nantucket Electric Company Summary of Illustrative Bill Impacts - 10 Years 10, 20, and 30 Year Amortization

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
(1) Illustrative % Increase @ 10 Year Amortization	1.24%	0.25%	-0.10%	-0.18%	-0.17%	-0.15%	-0.13%	-0.13%	-0.14%	-0.15%
(2) Illustrative % Increase @ 20 Year Amortization	1.06%	0.12%	-0.02%	-0.11%	-0.11%	-0.10%	-0.09%	-0.09%	-0.09%	-0.10%
(3) Illustrative % Increase @ 30 Year Amortization	1.00%	0.06%	-0.01%	-0.09%	-0.09%	-0.09%	-0.07%	-0.07%	-0.07%	-0.09%

Page 2, Line (11)
 Page 3, Line (11)

(3) Page 4, Line (11)

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-6 Page 2 of 5 H.O. Zilgme

Massachusetts Electric Company Nantucket Electric Company Calculation of Illustrative Factor and Residential Bill Impact - 10 Years Assuming 10 Year Amortization

	-	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	_	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
(1)	Total Annual Recovery	\$48,518,984	\$58,755,479	\$54,701,428	\$47,638,081	\$40,897,167	\$34,948,474	\$29,744,954	\$24,602,609	\$19,499,690	\$13,567,250
(2)	Residential Distribution Revenue Allocator	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>	<u>57.7%</u>
(3)	Total Allocated Residential Recovery	\$27,995,454	\$33,901,911	\$31,562,724	\$27,487,173	\$23,597,665	\$20,165,269	\$17,162,838	\$14,195,705	\$11,251,321	\$7,828,303
(4)	Forecasted Annual Residential kWh	8,111,041,508	<u>8,111,041,508</u>	8,111,041,508							
(5)	Illustrative Annual Factor	\$0.00345	\$0.00417	\$0.00389	\$0.00338	\$0.00290	\$0.00248	\$0.00211	\$0.00175	\$0.00138	\$0.00096
(6)	Illustrative Incremental Change in Factor	\$0.00345	\$0.00072	(\$0.00028)	(\$0.00051)	(\$0.00048)	(\$0.00042)	(\$0.00037)	(\$0.00036)	(\$0.00037)	(\$0.00042)
(7)	Monthly Residential kWh Deliveries	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>
(8)	Year-Over-Year Illustrative Increase in Monthly Bill	\$1.73	\$0.36	(\$0.14)	(\$0.26)	(\$0.24)	(\$0.21)	(\$0.19)	(\$0.18)	(\$0.19)	(\$0.21)
(9)	Residential Monthly Bill at Start of Year	<u>\$139.56</u>	<u>\$141.29</u>	<u>\$141.65</u>	<u>\$141.51</u>	<u>\$141.25</u>	<u>\$141.01</u>	<u>\$140.80</u>	<u>\$140.61</u>	<u>\$140.43</u>	<u>\$140.24</u>
(10)	Illustrative Residential Monthly Bill	\$141.29	\$141.65	\$141.51	\$141.25	\$141.01	\$140.80	\$140.61	\$140.43	\$140.24	\$140.03
(11)	Illustrative % Increase	1.24%	0.25%	-0.10%	-0.18%	-0.17%	-0.15%	-0.13%	-0.13%	-0.14%	-0.15%

- (1) Attachment EDC-2-5-7, Line 4
- (2) Currently effective R-1/R-2 Distribution Revenue Allocator percentage
- (3) Line (1) x Line (2)
- (4) Company forecast for for the furthest year in the Company's forecast (calendar year 2025)
- (5) Line $(3) \div$ Line (4), trucated to 5 decimal places
- (6) Line (5) Line (5) from prior year
- (7) 500 kWh
- (8) Line (6) x Line (7)
- (9) Year 1: Page 5; all other years: prior year Line 16
- (10) Line (8) + Line (9)
- (11) Line (8) ÷ Line (9)

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-6 Page 3 of 5 H.O. Zilgme

Massachusetts Electric Company Nantucket Electric Company Calculation of Illustrative Factor and Residential Bill Impact - 10 Years Assuming 20 Year Amortization

	-	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	_	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
(1)	Total Annual Recovery	\$41,506,957	\$46,179,966	\$45,127,443	\$40,687,809	\$36,339,861	\$32,468,385	\$29,080,368	\$25,706,654	\$22,335,992	\$18,306,895
(2)	Residential Distribution Revenue Allocator	<u>57.7%</u>									
(3)	Total Allocated Residential Recovery	\$23,949,514	\$26,645,840	\$26,038,535	\$23,476,866	\$20,968,100	\$18,734,258	\$16,779,372	\$14,832,739	\$12,887,867	\$10,563,078
(4)	Forecasted Annual Residential kWh	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508
(5)	Illustrative Annual Factor	\$0.00295	\$0.00328	\$0.00321	\$0.00289	\$0.00258	\$0.00230	\$0.00206	\$0.00182	\$0.00158	\$0.00130
(6)	Illustrative Incremental Change in Factor	\$0.00295	\$0.00033	(\$0.00007)	(\$0.00032)	(\$0.00031)	(\$0.00028)	(\$0.00024)	(\$0.00024)	(\$0.00024)	(\$0.00028)
(7)	Monthly Residential kWh Deliveries	<u>500</u>									
(8)	Year-Over-Year Illustrative Increase in Monthly Bill	\$1.48	\$0.17	(\$0.03)	(\$0.16)	(\$0.16)	(\$0.14)	(\$0.12)	(\$0.12)	(\$0.12)	(\$0.14)
(9)	Residential Monthly Bill at Start of Year	<u>\$139.56</u>	<u>\$141.04</u>	<u>\$141.21</u>	<u>\$141.18</u>	<u>\$141.02</u>	<u>\$140.86</u>	<u>\$140.72</u>	<u>\$140.60</u>	<u>\$140.48</u>	<u>\$140.36</u>
(10)	Illustrative Residential Monthly Bill	\$141.04	\$141.21	\$141.18	\$141.02	\$140.86	\$140.72	\$140.60	\$140.48	\$140.36	\$140.22
(11)	Illustrative % Increase	1.06%	0.12%	-0.02%	-0.11%	-0.11%	-0.10%	-0.09%	-0.09%	-0.09%	-0.10%

- (1) Attachment EDC-2-5-7, Line 8
- (2) Currently effective R-1/R-2 Distribution Revenue Allocator percentage
- (3) Line (1) x Line (2)
- (4) Company forecast for for the furthest year in the Company's forecast (calendar year 2025)
- (5) Line (3) ÷ Line (4), trucated to 5 decimal places
- (6) Line (5) Line (5) from prior year
- (7) 500 kWh
- (8) Line (6) x Line (7)
- (9) Year 1: Page 5; all other years: prior year Line 16
- (10) Line (8) + Line (9)
- (11) Line (8) ÷ Line (9)

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-6 Page 4 of 5 H.O. Zilgme

Massachusetts Electric Company Nantucket Electric Company Calculation of Illustrative Factor and Residential Bill Impact - 10 Years Assuming 30 Year Amortization

	-	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	_	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
(1)	Total Annual Recovery	\$39,088,435	\$41,694,363	\$41,423,141	\$37,714,035	\$34,073,584	\$30,841,772	\$28,026,148	\$25,212,427	\$22,388,900	\$18,967,367
(2)	Residential Distribution Revenue Allocator	<u>57.7%</u>									
(3)	Total Allocated Residential Recovery	\$22,554,027	\$24,057,647	\$23,901,152	\$21,760,998	\$19,660,458	\$17,795,702	\$16,171,087	\$14,547,570	\$12,918,395	\$10,944,171
(4)	Forecasted Annual Residential kWh	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508	8,111,041,508
(5)	Illustrative Annual Factor	\$0.00278	\$0.00296	\$0.00294	\$0.00268	\$0.00242	\$0.00219	\$0.00199	\$0.00179	\$0.00159	\$0.00134
(6)	Illustrative Incremental Change in Factor	\$0.00278	\$0.00018	(\$0.00002)	(\$0.00026)	(\$0.00026)	(\$0.00023)	(\$0.00020)	(\$0.00020)	(\$0.00020)	(\$0.00025)
(7)	Monthly Residential kWh Deliveries	<u>500</u>									
(8)	Year-Over-Year Illustrative Increase in Monthly Bill	\$1.39	\$0.09	(\$0.01)	(\$0.13)	(\$0.13)	(\$0.12)	(\$0.10)	(\$0.10)	(\$0.10)	(\$0.13)
(9)	Residential Monthly Bill at Start of Year	<u>\$139.56</u>	<u>\$140.95</u>	<u>\$141.04</u>	<u>\$141.03</u>	<u>\$140.90</u>	<u>\$140.77</u>	<u>\$140.65</u>	<u>\$140.55</u>	<u>\$140.45</u>	<u>\$140.35</u>
(10)	Illustrative Residential Monthly Bill	\$140.95	\$141.04	\$141.03	\$140.90	\$140.77	\$140.65	\$140.55	\$140.45	\$140.35	\$140.22
(11)	Illustrative % Increase	1.00%	0.06%	-0.01%	-0.09%	-0.09%	-0.09%	-0.07%	-0.07%	-0.07%	-0.09%

- (1) Attachment EDC-2-5-7, Line 12
- (2) Currently effective R-1/R-2 Distribution Revenue Allocator percentage
- (3) Line (1) x Line (2)
- (4) Company forecast for for the furthest year in the Company's forecast (calendar year 2025)
- (5) Line (3) ÷ Line (4), trucated to 5 decimal places
- (6) Line (5) Line (5) from prior year
- (7) 500 kWh
- (8) Line (6) x Line (7)
- (9) Year 1: Page 5; all other years: prior year Line 16
- (10) Line (8) + Line (9)
- (11) Line (8) ÷ Line (9)

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-6 Page 5 of 5 H.O. Zilgme

Massachusetts Electric Company Nantucket Electric Company Calculation of Current Monthly Residential Bill

		Effective	
(1)	500	March 1, 2021	Amount
		(a)	(b)
	Delivery Service		
(2)	Customer Charge		\$7.00
(3)	Base Distribution Charge	\$0.04906	
(4)	CapEx Factor	\$0.00352	
(5)	Basic Service Adjustment Factor	\$0.00105	
(6)	Residential Assistance Adjustment Factor	\$0.00488	
(7)	Storm Fund Replenishment Factor	\$0.00301	
(8)	Pension/PBOP Factor	\$0.00179	
(9)	Revenue Decoupling Mechanism Adjustment Factor	\$0.00255	
(10)	Attorney General Consulting Expense Factor	\$0.00003	
(11)	Solar Cost Adjustment Factor	\$0.00033	
(12)	Smart Grid Distribution Adjustment Factor	\$0.00008	
(13)	Net Metering Recovery Surcharge	\$0.01163	
(14)	Renewable Energy Recovery Factor	\$0.00075	
(15)	Tax Act Credit Factor	(\$0.00062)	
(16)	Vegetation Management Factor	\$0.00054	
(17)	Grid Modernization Factor	<u>\$0.00032</u>	
(18)	Total Distribution Energy Charge	\$0.07892	\$39.46
(19)	SMART Factor	\$0.00315	\$1.58
(20)	Electric Vehicle Program Factor	\$0.00011	\$0.06
(21)	Transition Charge	(\$0.00104)	(\$0.52)
(22)	Transmission Service Adjustment Factor	\$0.03858	\$19.29
(23)	Energy Efficiency Charge	\$0.02098	\$10.49
(24)	Renewables Charge	\$0.00050	\$0.25
(25)	Subtotal Delivery Charges		\$77.61
	Supply Service		
(26)	Base Basic Service Charge	\$0.11965	\$59.83
(20)	Basic Service Admin Cost Factor	\$0.00011	\$0.06
(27) (28)	Smart Grid Customer Cost Adjustment Factor	\$0.00412	<u>\$0.00</u>
(28)	Commodity Subtotal	\$0.12388	<u>\$2.00</u> \$61.95
	-	φ0.12500	
(30)	Total		\$139.56

(a) M.D.P.U. No. 1-21-C

(b) Line (1) x Column (a), Lines (18) thru (28)

Massachusetts Electric Company Distribution DG Capital - CIP Fees Over 10 Years

			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	<u>10 Year Amortization</u> Annual Revenue Requirement on CapEx O&M related to capex	Attachment EDC-2-5-8, Page 1, Line 2 Attachment EDC-2-5-8, Page 1, Line 6	\$29,419,484 \$19,099,500	\$58,755,479 \$0	\$54,701,428 \$0	\$47,638,081 \$0	\$40,897,167 \$0	\$34,948,474 \$0	\$29,744,954 \$0	\$24,602,609 \$0	\$19,499,690 \$0	\$13,567,250 \$0
2	Own related to capex	Attachment EDC-2-5-8, Fage 1, Line 6	\$19,099,500	30	\$0	\$0	30	\$0	\$0	30	30	\$0
3 4	Total Revenue Requirement		\$48,518,984	\$58,755,479	\$54,701,428	\$47,638,081	\$40,897,167	\$34,948,474	\$29,744,954	\$24,602,609	\$19,499,690	\$13,567,250
5 6	20 Year Amortization Annual Revenue Requirement on CapEx O&M related to capex	Attachment EDC-2-5-9, Page 1, Line 2 Attachment EDC-2-5-9, Page 1, Line 6	\$22,407,457 \$19,099,500	\$46,179,966 \$0	\$45,127,443 \$0	\$40,687,809 \$0	\$36,339,861 \$0	\$32,468,385 \$0	\$29,080,368 \$0	\$25,706,654 \$0	\$22,335,992 \$0	\$18,306,895 \$0
7 8	Total Revenue Requirement		\$41,506,957	\$46,179,966	\$45,127,443	\$40,687,809	\$36,339,861	\$32,468,385	\$29,080,368	\$25,706,654	\$22,335,992	\$18,306,895
9 10 11	30 Year Amortization Annual Revenue Requirement on CapEx O&M related to capex	Attachment EDC-2-5-10, Page 1, Line 2 Attachment EDC-2-5-10, Page 1, Line 6	\$19,988,935 \$19,099,500	\$41,694,363 \$0	\$41,423,141 \$0	\$37,714,035 \$0	\$34,073,584 \$0	\$30,841,772 \$0	\$28,026,148 \$0	\$25,212,427 \$0	\$22,388,900 \$0	\$18,967,367 \$0
12	Total Revenue Requirement		\$39,088,435	\$41,694,363	\$41,423,141	\$37,714,035	\$34,073,584	\$30,841,772	\$28,026,148	\$25,212,427	\$22,388,900	\$18,967,367

Massachusetts Electric Company Distribution DG Capital - CIP Fees Over 10 Years Summary Illustrative Revenue Requirement - 10 Years

			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	Cumulative Net Historic Capital Adjustment											
2	Annual Revenue Requirement on CapEx	Page 2, Line (32)	\$29,419,484	\$58,755,479	\$54,701,428	\$47,638,081	\$40,897,167	\$34,948,474	\$29,744,954	\$24,602,609	\$19,499,690	\$13,567,250
3												
4	Cumulative Net CapEx Adjustment		\$29,419,484	\$58,755,479	\$54,701,428	\$47,638,081	\$40,897,167	\$34,948,474	\$29,744,954	\$24,602,609	\$19,499,690	\$13,567,250
5												
6	O&M related to capex		\$19,099,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7												
8	Total		\$48,518,984	\$58,755,479	\$54,701,428	\$47,638,081	\$40,897,167	\$34,948,474	\$29,744,954	\$24,602,609	\$19,499,690	\$13,567,250

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-8 Page 2 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration - CIP Fees over 10 Years Illustrative Revenue Requirement - 10 Years

Year		1 (a)	2 (b)	3 (c)	$\frac{4}{(d)}$	<u>5</u> (e)	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
Depreciable Plant Additions Distribution Plant Additions CIAC/CIP		\$496,587,000 (\$195,998,000)	\$0 (\$18,517,000)	\$0 (\$18,973,000)	\$0 (\$19,494,000)	\$0	\$0 \$ (14,835,000)	\$0 \$ (14,767,000)	\$0 (\$16,135,000)	\$0 (\$16,135,000)	\$0 (\$26,743,000)
 (2) Charlen (3) Accum. Gross Distribution Plant Addition 	PY Line (3) + CY Line (1) & (2)	\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(4) Cumulative Cost of Removal		\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500
Deferred Tax Calculation:											
(5) Composite Book Depreciation Rate	Assumes 10 year	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Vintage Year Tax Depreciation: (6) Federal Tax Depreciation (7) Cumulative Federal Tax Depreciation	Page 3, Line (31) PY Line (7) + CY Line (6)	\$60,072,400 \$60,072,400	\$50,772,960 \$110,845,360	\$37,886,256 \$148,731,616	\$28,063,296 \$176,794,912	\$20,634,544 \$197,429,456	\$15,400,868 \$212,830,324	\$12,720,100 \$225,550,424	\$11,663,258 \$237,213,682	\$10,622,608 \$247,836,290	\$8,854,749 \$256,691,039
(8) State Tax Depreciation(9) Cumulative State Tax Depreciation	Page 3, Line (46) PY Line (9) + CY Line (8)	\$60,072,400 \$60,072,400	\$50,772,960 \$110,845,360	\$37,886,256 \$148,731,616	\$28,063,296 \$176,794,912	\$20,634,544 \$197,429,456	\$15,400,868 \$212,830,324	\$12,720,100 \$225,550,424	\$11,663,258 \$237,213,682	\$10,622,608 \$247,836,290	\$8,854,749 \$256,691,039
(10) Book Depreciation(11) Cumulative Book Depreciation	Year 1: Line (3) x Line (5) x 50%; Year 2 and beyond: Line (3) x Line (5) PY Line (11) + CY Line (10)	\$15,029,450 \$15,029,450	\$29,133,050 \$44,162,500	\$27,258,550 \$71,421,050	\$25,335,200 \$96,756,250	\$23,370,350 \$120,126,600	\$21,638,450 \$141,765,050	\$20,158,350 \$161,923,400	\$18,613,250 \$180,536,650	\$16,999,750 \$197,536,400	\$14,855,850 \$212,392,250
(12) Cumulative State Book / Tax Timer(13) Effective State Tax Rate	Line (9) - Line (11)	\$45,042,950 8.000%	\$66,682,860 8.000%	\$77,310,566 8.000%	\$80,038,662 8.000%	\$77,302,856 8.000%	\$71,065,274 8.000%	\$63,627,024 8.000%	\$56,677,032 8.000%	\$50,299,890 8.000%	\$44,298,789 8.000%
(14) Deferred State Tax Reserve	Line (12) x Line (13) FY18 NOL true-up plus 75% of FY19	\$3,603,436	\$5,334,629	\$6,184,845	\$6,403,093	\$6,184,228	\$5,685,222	\$5,090,162	\$4,534,163	\$4,023,991	\$3,543,903
(14a) Less: State NOL	NOL per tax return	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(14b) Net Deferred State Tax Reserve	Line (14) plus Line (14a)	\$3,603,436	\$5,334,629	\$6,184,845	\$6,403,093	\$6,184,228	\$5,685,222	\$5,090,162	\$4,534,163	\$4,023,991	\$3,543,903
(15) Cumulative Federal Book / Tax Timer(16) Effective Tax Rate	Line (7) - Line (11)	\$45,042,950 21.000%	\$66,682,860 21.000%	\$77,310,566 21.000%	\$80,038,662 21.000%	\$77,302,856 21.000%	\$71,065,274 21.000%	\$63,627,024 21.000%	\$56,677,032 21.000%	\$50,299,890 21.000%	\$44,298,789 21.000%
(17) Deferred Federal Tax Reserve	Line (15) x Line (16)	\$9,459,020	\$14,003,401	\$16,235,219	\$16,808,119	\$16,233,600	\$14,923,708	\$13,361,675	\$11,902,177	\$10,562,977	\$9,302,746
Less: Federal deduction for Deferred (18) State Taxes	If Line (14b) > \$0, Line (14b) * -21%, otherwise \$0	(\$756,722)	(\$1,120,272)	(\$1,298,817)	(\$1,344,650)	(\$1,298,688)	(\$1,193,897)	(\$1,068,934)	(\$952,174)	(\$845,038)	(\$744,220)
(19) Less: Federal NOL	FY18 NOL true-up plus 75% of FY19 NOL per tax return		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(20) Net Deferred Federal Tax Reserve	Sum of Line (17) through Line (19)	\$8,702,298	\$12,883,129	\$14,936,402	\$15,463,469	\$14,934,912	\$13,729,811	\$12,292,741	\$10,950,003	\$9,717,939	\$8,558,526
(21) Total Deferred Tax Reserve	Line (14b) + Line (20)	\$12,305,734	\$18,217,758	\$21,121,247	\$21,866,562	\$21,119,140	\$19,415,033	\$17,382,903	\$15,484,166	\$13,741,930	\$12,102,429
Rate Base Calculation:											
(22) Gross Plant Additions	Line (3)	\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(23) Accumulated Book Depreciation	- Line (11)	(\$15,029,450)	(\$44,162,500)	(\$71,421,050)	(\$96,756,250)	(\$120,126,600)	(\$141,765,050)	(\$161,923,400)	(\$180,536,650)	(\$197,536,400)	(\$212,392,250)
(24) Deferred Tax Reserve(25) Cumulative Cost of Removal	- Line (21) - Line (4)	(\$12,305,734) \$30,013,500	(\$18,217,758) \$30,013,500	(\$21,121,247) \$30,013,500	(\$21,866,562) \$30,013,500	(\$21,119,140) \$30,013,500	(\$19,415,033) \$30,013,500	(\$17,382,903) \$30,013,500	(\$15,484,166) \$30,013,500	(\$13,741,930) \$30,013,500	(\$12,102,429) \$30,013,500
(26) Year End Rate Base	Sum of Lines (22) through (25)	\$303,267,316	\$249,705,242	\$200,570,203	\$154,995,688	\$112,569,760	\$77,800,417	\$44,907,197	\$12,057,684	(\$19,334,830)	(\$59,294,179)
Revenue Requirement Calculation:											
	Year 1: Line (26) ÷ 2; Year 2 and beyond: (PY Line (26) + CY Line (26)) ÷										
(27) Average Rate Base	2	\$151,633,658	\$276,486,279	\$225,137,723	\$177,782,945	\$133,782,724	\$95,185,088	\$61,353,807	\$28,482,441	(\$3,638,573)	(\$39,314,505)
(28) Pre-Tax ROR (20) Pattern and Taura	Page 5	9.49% \$14,390,034	9.49% \$26,238,548	9.49% \$21,365,570	9.49%	9.49%	9.49%	9.49% \$5,822,476	9.49% \$2,702,984	9.49%	9.49%
(29) Return and Taxes(30) Book Depreciation	Line (27) x Line (28) Line (10)	\$15,029,450	\$26,238,548 \$29,133,050	\$21,365,570 \$27,258,550	\$16,871,601 \$25,335,200	\$12,695,981 \$23,370,350	\$9,033,065 \$21,638,450	\$5,822,476 \$20,158,350	\$2,702,984 \$18,613,250	(\$345,301) \$16,999,750	(\$3,730,947) \$14,855,850
	Year 1: \$0, Year 2: (PY Line (3) - PY Line (11)) x Prop Tax Rate ÷ 2, Year 3 and beyond: (PY Line (3) - PY Line (11))		,,			,,,_,_,					
(31) Property Tax expense	x Prop Tax Rate 1/	\$0	\$3,383,881	\$6,077,308	\$5,431,280	\$4,830,836	\$4,276,959	\$3,764,128	\$3,286,375	\$2,845,241	\$2,442,347
(32) Annual Revenue Requirement	Sum of Lines (29) through (31)	\$29,419,484	\$58,755,479	\$54,701,428	\$47,638,081	\$40,897,167	\$34,948,474	\$29,744,954	\$24,602,609	\$19,499,690	\$13,567,250
	1/	Proporty Toy Poto C	Jaulatian								

 Property Tax Rate Calculation Rate Year Plant in Service \$4,554,343,860 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 6, Page 1 Rate Year Accumulated Depreciation (\$1,783,103,879) DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 6, Page 1 Rate Year Net Plant in Service \$5,771,239,981

Rate Year Property Tax Expense \$65,650,673 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 7, Page 1

Property Tax Rate 2.37%

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-8 Page 3 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration - CIP Fees over 10 Years Calculation of Tax Depreciation and Repairs Deduction - 10 Years

Year		1	2	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	7	8	<u>9</u>	<u>10</u>
Federal Tax Depreciation		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Capital Repairs Deduction											
(1) Plant Additions	Page 2, Line (3)	\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(2) Capital Repairs Deduction Rate	Tax Dept 1/		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(3) Capital Repairs Deduction	Line (1) x Line (2)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bonus Depreciation											
(4) Plant Additions	Line (1)	\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(5) Less Capital Repairs Deduction	Line (3)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(6) Plant Additions Net of Capital Repairs Deduction	Line (4) - Line (5)	\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
Remaining Tax Depreciation											
(7) Plant Additions	Line (1)	\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(8) Less Capital Repairs Deduction	Line (3)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(9) Less Bonus Depreciation	Line (6)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(10) Less Plant Additions Subject to 39 Yr Straight Line Depreciation	Per Tax Dept 1/	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(11) Remaining Plant Additions Subject to 10 YR MACRS Tax Depreciation	Line $(7) - (8) - (9) - (10)$	\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(12) 10 YR MACRS Tax Depreciation Rates(13) Total Tax Depreciation on 10 YR MACRS assets	IRS Publication 946, Table A-1 Line (11) x Line (12)	10.00%	18.00%	14.40% \$37,886,256	11.52% \$28,063,296	9.22% \$20,634,544	7.37%	6.55% \$12,720,100	6.55% \$11,663,258	6.56% \$10,622,608	6.55% \$8,854,749
(15) Total Tax Depresation on To TK WACKS assets	Enic (11) x Enic (12)	\$50,058,700	\$50,772,900	\$57,880,250	\$28,005,270	\$20,054,544	\$15,400,808	\$12,720,100	\$11,005,258	\$10,022,008	30,034,749
(14) Plant Additions Subject to 39 Yr Straight Line Depreciation	Line (10)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(15) 39 YR SL Depreciation Rates	IRS Publication 946	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%
(16) Total Tax Depreciation on 39 YR SL assets	Line (14) * Line (15)	50	\$0	\$0	\$0	\$0	20	\$0	\$0	20	\$0
(17) Total Tax Depreciation and Repairs Deduction	Sum of Lines (3), (13), (16)	\$30,058,900	\$50,772,960	\$37,886,256	\$28,063,296	\$20,634,544	\$15,400,868	\$12,720,100	\$11,663,258	\$10,622,608	\$8,854,749
(18) Includable Cost of Removal	Page 2, Line (4)	\$30,013,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal	Line (17) through (18)	\$60,072,400	\$50,772,960	\$37,886,256	\$28,063,296	\$20,634,544	\$15,400,868	\$12,720,100	\$11,663,258	\$10,622,608	\$8,854,749
State Tax Deduction											
(20) Plant Additions	Line (1)	\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(21) Capital Repairs Deduction Rate	Line (2)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(22) Capital Repairs Deduction	Line (20) x Line (21)	\$0	\$0	\$0	\$0	\$0	20	\$0	\$0	20	\$0
Remaining Tax Depreciation											
(23) Plant Additions	Line (20)	\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(24) Less Capital Repairs Deduction	Line (22)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation	Per Tax Dept 1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(26) Remaining Plant Additions Subject to 10 YR MACRS Tax Depreciation(27) 10 YR MACRS Tax Depreciation Rates	Line (23) - Line (24) - Line (25) IRS Publication 946, Table A-1	\$300,589,000 10.0000%	\$282,072,000 18.0000%	\$263,099,000 14.4000%	\$243,605,000 11.5200%	\$223,802,000 9.2200%	\$208,967,000 7.3700%	\$194,200,000 6.5500%	\$178,065,000 6.5500%	\$161,930,000 6.5600%	\$135,187,000 6,5500%
(2)) To TK MACKS Tax Depreciation Rates (28) Total Tax Depreciation on 10 YR MACRS assets	Line (26) x Line (27)	\$30,058,900	\$50,772,960	\$37,886,256	\$28,063,296	\$20,634,544	\$15,400,868	\$12,720,100	\$11,663,258	\$10.622,608	\$8,854,749
(29) Plant Additions Subject to 39 Yr Straight Line Depreciation	Line (25)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(30) 39 YR SL Depreciation Rates	IRS Publication 946	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%
(31) Total Tax Depreciation on 39 YR SL assets		60	60	60	e0.	e0.				60	
	Line (29) * Line (30)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(32) Total Tax Depreciation and Repairs Deduction		\$0 \$30,058,900	\$0 \$50,772,960	\$0 \$37,886,256	\$0 \$28,063,296	\$0 \$20,634,544	\$0 \$15,400,868	\$0 \$12,720,100	\$0 \$11,663,258	\$0 \$10,622,608	\$0 \$8,854,749
(32) Total Tax Depreciation and Repairs Deduction(33) Includable Cost of Removal	Line (29) * Line (30)								00	40	

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-8 Page 4 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration MACRS Table

MACRS DEPRECIATION BY CLASS OF PROPERTY

Year	3-year	5-year	7-year	10-year	15-year	20-year
1	33.33%	20.00%	14.29%	10.00%	5.00%	3.75%
2	44.45	32	24.49	18%	9.5	7.219
3	14.81	19.2	17.49	14.40%	8.55	6.677
4	7.41	11.52	12.49	11.52%	7.7	6.177
5		11.52	8.93*	9.22%	6.93	5.713
6		5.76	8.92	7.37%	6.23	5.285
7			8.93	6.55%	5.9	4.888
8			4.46	6.55%	5.9	4.522
9				6.56%	5.91	4.462
10				6.55%	5.9	4.461
11				3.28%	5.9	4.462
12					5.9	4.461
13					5.91	4.462
14					5.9	4.461
15					5.91	4.462
16					2.95	4.461
17						4.462
18						4.461
19						4.462
20						4.461
21						2.231

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-8 Page 5 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration Cost of Capital

	Description	Capital Structure (a)	Cost Rate (b)	Weighted Return (c) = (a) x (b)	Taxes (d)	Pre-tax Return (e) = (c) + (d)
1 2	Long Term Debt	46.43%	5.22% 1/	2.42%		2.42%
3 4	Preferred Stock	0.08%	4.44% 1/	0.00%		0.00%
5 6	Total Common Equity	53.49%	9.60% 3/	5.14%	1.93% 2/	7.07%
7	Total Capitalization	100.00%		7.56%	1.93%	9.49%

- 1/ Company's Effective Cost of Long Term Debt and Preferred Stock
- 2/ Line 5(c) /(1-0.2732) Line 5(c)
- 3/ Per Docket No. 18-150 final order Page 497

	From Jan 1,
Effective Tax Rate	2018
Federal Tax Rate	21.00%
State Tax Rate	8.00%
Federal Deduction for State Income Taxes	1.68%
State Tax, net of Federal Deduction	6.32%
Federal Tax Rate	21.00%
Effective Tax rate	27.32%

Massachusetts Electric Company Distribution DG Capital - CIP Fees Over 10 Years Summary Illustrative Revenue Requirement - 20 years

			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	Cumulative Net Historic Capital Adjustment											
2	Annual Revenue Requirement on Year 1 CapEx	Page 2, Line (32)	\$22,407,457	\$46,179,966	\$45,127,443	\$40,687,809	\$36,339,861	\$32,468,385	\$29,080,368	\$25,706,654	\$22,335,992	\$18,306,895
3												
4	Cumulative Net CapEx Adjustment		\$22,407,457	\$46,179,966	\$45,127,443	\$40,687,809	\$36,339,861	\$32,468,385	\$29,080,368	\$25,706,654	\$22,335,992	\$18,306,895
5												
6	O&M		\$19,099,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7												
8	Total		\$41,506,957	\$46,179,966	\$45,127,443	\$40,687,809	\$36,339,861	\$32,468,385	\$29,080,368	\$25,706,654	\$22,335,992	\$18,306,895

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-9 Page 2 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration - CIP Fees Over 10 Years Illustrative Revenue Requirement - 20 Years

			Illustrative Revenue	Requirement - 20 Y	lears						
Year Depreciable Plant Additions		1 (a)	2 (b)	3 (c)	4 (d)	<u>5</u> (e)	<u>6</u> (f)	<u>7</u> (g)	<u>8</u> (h)	<u>9</u> (i)	<u>10</u> (j)
 Gross Distribution Plant Additions CIP/CIAC 	<u>-</u>	\$496,587,000 (\$195,998,000)	\$0 (\$18,517,000)	\$0 (\$18,973,000)	\$0 (\$19,494,000)	\$0 (\$19,803,000) \$	\$0 (14,835,000) \$	(1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$0 (\$16,135,000)	\$0 (\$16,135,000)	\$0 (\$26,743,000)
(3) Accum. Gross Distribution Plant Additions	PY Line (3) + CY Line (1) & (2)	\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(4) Cumulative Cost of Removal		\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500
Deferred Tax Calculation:											
(5) Composite Book Depreciation Rate	Assumes 20 year	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Vintage Year Tax Depreciation: (6) Federal Tax Depreciation	Page 3, Line (31)	\$41,285,588	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
(7) Cumulative Federal Tax Depreciation	PY Line (7) + CY Line (6)	\$41,285,588	\$61,648,366	\$79,215,486	\$94,262,967	\$107,048,775	\$118,092,681	\$127,585,177	\$135,637,276	\$142,862,593	\$148,893,285
(8) State Tax Depreciation	Page 3, Line (46)	\$41,285,588	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
(9) Cumulative State Tax Depreciation	PY Line (9) + CY Line (8)	\$41,285,588	\$61,648,366	\$79,215,486	\$94,262,967	\$107,048,775	\$118,092,681	\$127,585,177	\$135,637,276	\$142,862,593	\$148,893,285
(10) Book Depreciation	Year 1: Line (3) x Line (5) x 50%; Year 2 and beyond: Line (3) x Line (5)	\$7,514,725	\$14,566,525	\$13,629,275	\$12,667,600	\$11,685,175	\$10,819,225	\$10,079,175	\$9,306,625	\$8,499,875	\$7,427,925
(11) Cumulative Book Depreciation	PY Line (11) + CY Line (0)	\$7,514,725	\$22,081,250	\$35,710,525	\$48,378,125	\$60,063,300	\$70,882,525	\$80,961,700	\$90,268,325	\$98,768,200	\$106,196,125
(12) Cumulative State Book / Tax Timer	Line (9) - Line (11)	\$33,770,863	\$39,567,116	\$43,504,961	\$45,884,842	\$46,985,475	\$47,210,156	\$46,623,477	\$45,368,951	\$44,094,393	\$42,697,160
(13) Effective State Tax Rate(14) Deferred State Tax Reserve	Line (12) x Line (13)	8.000% \$2,701,669	8.000% \$3,165,369	8.000% \$3,480,397	8.000% \$3,670,787	8.000% \$3,758,838	8.000% \$3,776,812	8.000% \$3,729,878	8.000% \$3,629,516	8.000% \$3,527,551	8.000% \$3,415,773
	FY18 NOL true-up plus 75% of FY19 NOL per tax										
(14a) Less: State NOL	return	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(14b) Net Deferred State Tax Reserve	Line (14) plus Line (14a)	\$2,701,669	\$3,165,369	\$3,480,397	\$3,670,787	\$3,758,838	\$3,776,812	\$3,729,878	\$3,629,516	\$3,527,551	\$3,415,773
(15) Cumulative Federal Book / Tax Timer(16) Effective Tax Rate	Line (7) - Line (11)	\$33,770,863 21.000%	\$39,567,116 21.000%	\$43,504,961 21.000%	\$45,884,842 21.000%	\$46,985,475 21.000%	\$47,210,156 21.000%	\$46,623,477 21.000%	\$45,368,951 21.000%	\$44,094,393 21.000%	\$42,697,160 21.000%
(17) Deferred Federal Tax Reserve	Line (15) x Line (16)	\$7,091,881	\$8,309,094	\$9,136,042	\$9,635,817	\$9,866,950	\$9,914,133	\$9,790,930	\$9,527,480	\$9,259,823	\$8,966,404
Less: Federal deduction for Deferred State											
(18) Taxes	If Line (14b) > \$0, Line (14b) * -21%, otherwise \$0 FY18 NOL true-up plus 75% of FY19 NOL per tax	(\$567,350)	(\$664,727) \$0	(\$730,883) \$0	(\$770,865) \$0	(\$789,356) \$0	(\$793,131) \$0	(\$783,274) \$0	(\$762,198) \$0	(\$740,786) \$0	(\$717,312) \$0
(19) Less: Federal NOL(20) Net Deferred Federal Tax Reserve	return Sum of Line (17) through Line (19)	\$6,524,531	\$7,644,367	\$8,405,159	\$8,864,952	\$9,077,594	\$9,121,002	\$9,007,656	\$8,765,282	\$8,519,037	\$8,249,092
(21) Total Deferred Tax Reserve	Line (14b) + Line (20)	\$9,226,200	\$10,809,736	\$11,885,556	\$12,535,739	\$12,836,432	\$12,897,814	\$12,737,534	\$12,394,798	\$12,046,588	\$11,664,865
Rate Base Calculation:	-										
(22) Gross Plant Additions	Line (3)	\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(23) Accumulated Book Depreciation	- Line (11)	(\$7,514,725)	(\$22,081,250)	(\$35,710,525)	(\$48,378,125)	(\$60,063,300)	(\$70,882,525)	(\$80,961,700)	(\$90,268,325)	(\$98,768,200)	(\$106,196,125)
(24) Deferred Tax Reserve	- Line (21)	(\$9,226,200)	(\$10,809,736)	(\$11,885,556)	(\$12,535,739)	(\$12,836,432)	(\$12,897,814)	(\$12,737,534)	(\$12,394,798)	(\$12,046,588)	(\$11,664,865)
(25) Cumulative Cost of Removal(25) Year End Rate Base	- Line (4) Sum of Lines (22) through (25)	\$30,013,500 \$313,861,575	\$30,013,500 \$279,194,514	\$30,013,500 \$245,516,419	\$30,013,500 \$212,704,636	\$30,013,500 \$180,915,768	\$30,013,500 \$155,200,161	\$30,013,500 \$130,514,266	\$30,013,500 \$105,415,377	\$30,013,500 \$81,128,712	\$30,013,500 \$47,339,510
Revenue Requirement Calculation:											
	Year 1: Line (26) + 2; Year 2 and beyond: (PY Line										
(26) Average Rate Base	(26) + CY Line (26)) ÷ 2	\$156,930,788	\$296,528,045	\$262,355,467	\$229,110,528	\$196,810,202	\$168,057,964	\$142,857,213	\$117,964,822	\$93,272,045	\$64,234,111
(27) Pre-Tax ROR(28) Return and Taxes	Page 5 Line (27) x Line (28)	9.49% \$14,892,732	9.49% \$28,140,511	9.49% \$24,897,534	9.49% \$21,742,589	9.49% \$18,677,288	9.49% \$15,948,701	9.49% \$13,557,150	9.49% \$11,194,862	9.49% \$8,851,517	9.49% \$6,095,817
(29) Book Depreciation	Line (10)	\$7,514,725	\$14,566,525	\$13,629,275	\$12,667,600	\$11,685,175	\$10,819,225	\$10,079,175	\$9,306,625	\$8,499,875	\$7,427,925
	Year 1: \$0, Year 2: (PY Line (3) - PY Line (11)) x Prop Tax Rate ÷ 2, Year 3 and beyond: (PY Line (3) -										
(30) Property Tax expense	PY Line (11)) x Prop Tax Rate 1/	\$0	\$3,472,930	\$6,600,634	\$6,277,620	\$5,977,398	\$5,700,459	\$5,444,043	\$5,205,167	\$4,984,600	\$4,783,153
(31) Annual Revenue Requirement	Sum of Lines (29) through (31)	\$22,407,457	\$46,179,966	\$45,127,443	\$40,687,809	\$36,339,861	\$32,468,385	\$29,080,368	\$25,706,654	\$22,335,992	\$18,306,895

I / Property Tax Rate Calculation
 Rate Year Accumulated Depreciation
 (51,783,103,879)
 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 6, Page 1
 Rate Year Net Plant in Service
 (51,783,103,879)
 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 6, Page 1
 Rate Year Net Plant in Service
 (51,783,103,879)
 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 6, Page 1

Rate Year Property Tax Expense \$65,650,673 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 7, Page 1

Property Tax Rate 2.37%

Massachusetts Electric Company DG Capital Investment Recovery Illustration - CIP Fees Over 10 Years Calculation of Tax Depreciation and Repairs Deduction - 20 Years

Year			<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	7	<u>8</u>	<u>9</u>	<u>10</u>
Edual Tan Danasistian			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Federal Tax Depreciation Capital Repairs Deduction												
(1) Plant Additions	Page 2, Line (3)		\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(2) Capital Repairs Deduction Rate	Tax Dept	1/	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(3) Capital Repairs Deduction	Line (1) x Line (2)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bonus Depreciation												
(4) Plant Additions	Line (1)		\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(5) Less Capital Repairs Deduction	Line (3)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(6) Plant Additions Net of Capital Repairs Deduction	Line (4) - Line (5)	_	\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
Banaining Tay Danasistian												
Remaining Tax Depreciation (7) Plant Additions	Line (1)		\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(8) Less Capital Repairs Deduction	Line (1)		\$00,589,000	\$282,072,000	\$205,099,000	\$245,005,000	\$225,802,000	\$208,907,000	\$194,200,000	\$178,005,000 \$0	\$101,950,000	\$155,187,000
(9) Less Bonus Depreciation	Line (6)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(10) Less Plant Additions Subject to 39 Yr Straight Line Depreciation	Per Tax Dept	1/	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(11) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line (7) - (8) - (9) - (10)		\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(12) 20 YR MACRS Tax Depreciation Rates	IRS Publication 946, Table A-1	_	3.7500%	7.2190%	6.6770%	6.1770%	5.7130%	5.2850%	4.8880%	4.5220%	4.4620%	4.4610%
(13) Total Tax Depreciation on 20 YR MACRS assets	Line (11) x Line (12)		\$11,272,088	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
(14) Plant Additions Subject to 39 Yr Straight Line Depreciation	Line (10)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(15) 39 YR SL Depreciation Rates	IRS Publication 946		2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%
(16) Total Tax Depreciation on 39 YR SL assets	Line (14) * Line (15)	_	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(17) Total Tax Depreciation and Repairs Deduction	Sum of Lines (3), (13), (16)		\$11,272,088	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
			620.012.500	* 0	60		\$ 0	\$ 0	6 0		6 0	<u></u>
(18) Includable Cost of Removal	Page 2, Line (4)		\$30,013,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal	Line (17) through (18)	-	\$41,285,588	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
State Tax Deduction												
(20) Plant Additions	Line (1)		\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(21) Capital Repairs Deduction Rate	Line (2)	_	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(22) Capital Repairs Deduction	Line (20) x Line (21)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Remaining Tax Depreciation												
(23) Plant Additions	Line (20)		\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(24) Less Capital Repairs Deduction	Line (22)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation	Per Tax Dept	1/	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(26) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line (23) - Line (24) - Line (25)		\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(27) 20 YR MACRS Tax Depreciation Rates	IRS Publication 946, Table A-1	_	3.7500%	7.2190%	6.6770%	6.1770%	5.7130%	5.2850%	4.8880%	4.5220%	4.4620%	4.4610%
(28) Total Tax Depreciation on 20 YR MACRS assets	Line (26) x Line (27)		\$11,272,088	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
(29) Plant Additions Subject to 39 Yr Straight Line Depreciation	Line (25)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(30) 39 YR SL Depreciation Rates	IRS Publication 946	_	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%
(31) Total Tax Depreciation on 39 YR SL assets	Line (29) * Line (30)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(32) Total Tax Depreciation and Repairs Deduction	Line (22) + Line (28) + Line (31)	_	\$11,272,088	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
(33) Includable Cost of Removal	Page 2, Line (4)	_	\$30,013,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(34) Total State Tax Depreciation, Repairs Deduction and Cost of Removal	Line (32) + Line (33)		\$41,285,588	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
		=										

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-9 Page 4 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration - CIP Fees Over 10 Years MACRS Table

Year	3-year	5-year	7-year	10-year	15-year	20-year
1	33.33%	20.00%	14.29%	10.00%	5.00%	3.75%
2	44.45	32	24.49	18	9.5	7.219
3	14.81	19.2	17.49	14.4	8.55	6.677
4	7.41	11.52	12.49	11.52	7.7	6.177
5		11.52	8.93	9.22	6.93	5.713
6		5.76	8.92	7.37	6.23	5.285
7			8.93	6.55	5.9	4.888
8			4.46	6.55	5.9	4.522
9				6.56	5.91	4.462
10				6.55	5.9	4.461
11				3.28	5.9	4.462
12					5.9	4.461
13					5.91	4.462
14					5.9	4.461
15					5.91	4.462
16					2.95	4.461
17						4.462
18						4.461
19						4.462
20						4.461
21						2.231

MACRS DEPRECIATION BY CLASS OF PROPERTY

Massachusetts Electric Company DG Capital Investment Recovery Illustration - CIP Fees Over 10 Years Cost of Capital

	Description	Capital Structure (a)	Cost Rate (b)	$\frac{\text{Weighted}}{\text{Return}}$ $(c) = (a) \times (b)$	Taxes (d)	$\frac{\text{Pre-tax}}{\text{Return}}$ $(e) = (c) + (d)$
1 2	Long Term Debt	46.43%	5.22% 1/	2.42%		2.42%
3 4	Preferred Stock	0.08%	4.44% 1/	0.00%		0.00%
5 6	Total Common Equity	53.49%	9.60% 3/	5.14%	1.93% 2/	7.07%
7	Total Capitalization	100.00%		7.56%	1.93%	9.49%

1/ Company's Effective Cost of Long Term Debt and Preferred Stock

2/ Line 5(c) /(1-0.2732) - Line 5(c)

3/ Per Docket No. 18-150 final order Page 497

Effective Tax Rate	From Jan 1, 2018
Federal Tax Rate	21.00%
State Tax Rate	8.00%
Federal Deduction for State Income Taxes	1.68%
State Tax, net of Federal Deduction	6.32%
Federal Tax Rate	21.00%
Effective Tax rate	27.32%

Massachusetts Electric Company Distribution DG Capital - CIP Fees Over 10 Years Summary Illustrative Revenue Requirement - 30 years

			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	Cumulative Net Historic Capital Adjustment											
2	Annual Revenue Requirement on Year 1 CapEx	Page 2, Line (32)	\$19,988,935	\$41,694,362	\$41,423,141	\$37,714,035	\$34,073,584	\$30,841,772	\$28,026,148	\$25,212,426	\$22,388,900	\$18,967,367
3												
4	Cumulative Net CapEx Adjustment		\$19,988,935	\$41,694,362	\$41,423,141	\$37,714,035	\$34,073,584	\$30,841,772	\$28,026,148	\$25,212,426	\$22,388,900	\$18,967,367
5												
6	O&M		\$19,099,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7												
8	Total		\$39,088,435	\$41,694,362	\$41,423,141	\$37,714,035	\$34,073,584	\$30,841,772	\$28,026,148	\$25,212,426	\$22,388,900	\$18,967,367

Massachusetts Electric Company DG Capital Investment Recovery Illustration - CIP Fees Over 10 Years

		Do cuphur		ue Requirement - 30							
Year		<u>1</u>	2	3	4	5	<u>6</u>	7	<u>8</u>	<u>9</u>	<u>10</u>
Depreciable Plant Additions		(a)	(b)	(c)	(d)	(e)					
(1) Gross Distribution Plant Additions		\$496,587,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(2) CIP/CIAC(3) Accum. Gross Distribution Plant Additions	PY Line (3) + CY Line (1) & (2)	(\$195,998,000) \$300,589,000	(\$18,517,000) \$282,072,000	(\$18,973,000) \$263,099,000	(\$19,494,000) \$243,605,000	(\$19,803,000) \$223,802,000	\$ (14,835,000) \$ \$208,967,000	\$ (14,767,000) \$194,200,000	(\$16,135,000) \$178,065,000	(\$16,135,000) \$161,930,000	(\$26,743,000) \$135,187,000
(4) Cumulative Cost of Removal		\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500
Deferred Tax Calculation:											
(5) Composite Book Depreciation Rate	Assumes 30 year	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%
Vintage Year Tax Depreciation:	$\operatorname{Pere} 2 \operatorname{Line} (21)$	\$41,285,588	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
(6) Federal Tax Depreciation(7) Cumulative Federal Tax Depreciation	Page 3, Line (31) PY Line (7) + CY Line (6)	\$41,285,588	\$61,648,366	\$79,215,486	\$94,262,967	\$107,048,775	\$118,092,681	\$127,585,177	\$135,637,276	\$142,862,593	\$148,893,285
(8) State Tax Depreciation	Page 3, Line (46)	\$41,285,588	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
(9) Cumulative State Tax Depreciation	PY Line (9) + CY Line (8)	\$41,285,588	\$61,648,366	\$79,215,486	\$94,262,967	\$107,048,775	\$118,092,681	\$127,585,177	\$135,637,276	\$142,862,593	\$148,893,285
	Year 1: Line (3) x Line (5) x 50%; Year 2 and										
(10) Book Depreciation(11) Cumulative Book Depreciation	beyond: Line (3) x Line (5) PY Line (11) + CY Line (10)	\$5,009,817 \$5,009,817	\$9,711,016 \$14,720,833	\$9,086,183 \$23,807,016	\$8,445,067 \$32,252,083	\$7,790,117 \$40,042,200	\$7,212,817 \$47,255,016	\$6,719,450 \$53,974,466	\$6,204,416 \$60,178,882	\$5,666,583 \$65,845,465	\$4,951,949 \$70,797,415
(12) Cumulative State Book / Tax Timer(13) Effective State Tax Rate	Line (9) - Line (11)	\$36,275,771 8.000%	\$46,927,533 8.000%	\$55,408,470 8.000%	\$62,010,884 8.000%	\$67,006,575 8.000%	\$70,837,665 8.000%	\$73,610,711 8.000%	\$75,458,394 8.000%	\$77,017,128 8.000%	\$78,095,870 8.000%
(13) Effective state Tax Rate (14) Deferred State Tax Reserve	Line (12) x Line (13)	\$2,902,062	\$3,754,203	\$4,432,678	\$4,960,871	\$5,360,526	\$5,667,013	\$5,888,857	\$6,036,671	\$6,161,370	\$6,247,670
	FY18 NOL true-up plus 75% of FY19 NOL										
(14a) Less: State NOL (14b) Net Deferred State Tax Reserve	per tax return Line (14) plus Line (14a)	\$0 \$2,902,062	\$0 \$3,754,203	\$0 \$4,432,678	\$0 \$4,960,871	\$0 \$5,360,526	\$0 \$5,667,013	\$0 \$5,888,857	\$0 \$6,036,671	\$0 \$6,161,370	\$0 \$6,247,670
(14b) Net Deferred State Tax Reserve	Line (14) plus Line (14a)	\$2,902,062	\$3,754,203	\$4,432,078	\$4,960,871	\$5,360,326	\$5,007,015	\$5,888,857	\$0,050,071	\$0,101,370	\$0,247,070
(15) Cumulative Federal Book / Tax Timer(16) Effective Tax Rate	Line (7) - Line (11)	\$36,275,771 21.000%	\$46,927,533 21.000%	\$55,408,470 21.000%	\$62,010,884 21.000%	\$67,006,575 21.000%	\$70,837,665 21.000%	\$73,610,711 21.000%	\$75,458,394 21.000%	\$77,017,128 21.000%	\$78,095,870 21.000%
(17) Deferred Federal Tax Reserve	Line (15) x Line (16)	\$7,617,912	\$9,854,782	\$11,635,779	\$13,022,286	\$14,071,381	\$14,875,910	\$15,458,249	\$15,846,263	\$16,173,597	\$16,400,133
Less: Federal deduction for Deferred State	If Line (14b) > \$0, Line (14b) * -21%,										
(18) Taxes	otherwise \$0	(\$609,433)	(\$788,383)	(\$930,862)	(\$1,041,783)	(\$1,125,710)	(\$1,190,073)	(\$1,236,660)	(\$1,267,701)	(\$1,293,888)	(\$1,312,011)
	FY18 NOL true-up plus 75% of FY19 NOL										
(19) Less: Federal NOL(20) Net Deferred Federal Tax Reserve	per tax return Sum of Line (17) through Line (19)	\$7,008,479	\$0 \$9,066,399	\$0 \$10,704,917	\$0 \$11,980,503	\$0 \$12,945,671	\$0 \$13,685,837	\$0 \$14,221,589	\$0 \$14,578,562	\$0 \$14,879,709	\$15,088,122
(21) Total Deferred Tax Reserve	Line (14b) + Line (20)	\$9,910,541	\$12,820,602	\$15,137,595	\$16,941,374	\$18,306,197	\$19,352,850	\$20,110,446	\$20,615,233	\$21,041,079	\$21,335,792
Rate Base Calculation:											
(22) Gross Plant Additions(23) Accumulated Book Depreciation	Line (3) - Line (11)	\$300,589,000 (\$5,009,817)	\$282,072,000 (\$14,720,833)	\$263,099,000 (\$23,807,016)	\$243,605,000 (\$32,252,083)	\$223,802,000 (\$40,042,200)	\$208,967,000 (\$47,255,016)	\$194,200,000 (\$53,974,466)	\$178,065,000 (\$60,178,882)	\$161,930,000 (\$65,845,465)	\$135,187,000 (\$70,797,415)
(24) Deferred Tax Reserve	- Line (21)	(\$9,910,541)	(\$12,820,602)	(\$15,137,595)	(\$16,941,374)	(\$18,306,197)	(\$19,352,850)	(\$20,110,446)	(\$20,615,233)	(\$21,041,079)	(\$21,335,792)
(25) Cumulative Cost of Removal	- Line (4)	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500	\$30,013,500
(25) Year End Rate Base	Sum of Lines (22) through (25)	\$315,682,142	\$284,544,064	\$254,167,889	\$224,425,043	\$195,467,104	\$172,372,633	\$150,128,588	\$127,284,385	\$105,056,955	\$73,067,293
Revenue Requirement Calculation:											
	Year 1: Line (26) ÷ 2; Year 2 and beyond:										
(26) Average Rate Base	(PY Line (26) + CY Line (26)) ÷ 2	\$157,841,071	\$300,113,103	\$269,355,977	\$239,296,466	\$209,946,073	\$183,919,869	\$161,250,611	\$138,706,486	\$116,170,670	\$89,062,124
(27) Pre-Tax ROR(28) Return and Taxes	Page 5 Line (27) x Line (28)	<u>9.49%</u> \$14,979,118	9.49% \$28,480,733	9.49% \$25,561,882	<u>9.49%</u> \$22,709,235	9.49% \$19,923,882	9.49% \$17,453,996	9.49% \$15,302,683	9.49% \$13,163,246	9.49% \$11,024,597	<u>9.49%</u> \$8,451,996
(28) Return and Taxes (29) Book Depreciation	Line (27) X Line (28) Line (10)	\$5,009,817	\$28,480,755 \$9,711,016	\$25,561,882 \$9,086,183	\$22,709,235 \$8,445,067	\$19,923,882 \$7,790,117	\$7,212,817	\$6,719,450	\$6,204,416	\$5,666,583	\$4,951,949
· · ·											
	Year 1: \$0, Year 2: (PY Line (3) - PY Line										
(30) Property Tax expense	 (11)) x Prop Tax Rate ÷ 2, Year 3 and beyond: (PY Line (3) - PY Line (11)) x Prop Tax Rate 1/ 	\$0	\$3,502,613	\$6,775,076	\$6,559,733	\$6,359,585	\$6,174,959	\$6,004,015	\$5,844,764	\$5,697,720	\$5,563,422
		30	95,502,015	30,775,070	0,00,000	40,007,000	φ0,1/ 1 ,7 <i>37</i>	\$0,004,015	au,011,701	\$5,077,720	#J,JUJ,722
(31) Annual Revenue Requirement	Sum of Lines (29) through (31)	\$19,988,935	\$41,694,362	\$41,423,141	\$37,714,035	\$34,073,584	\$30,841,772	\$28,026,148	\$25,212,426	\$22,388,900	\$18,967,367

 I/ Property Tax Rate Calculation

 Rate Year Plant in Service
 \$4,554,343,860

 Rate Year Accumulated Depreciation
 \$(\$1,783,103,879)

 Rate Year Net Plant in Service
 \$2,771,239,981

Rate Year Property Tax Expense \$65,650,673 DPU 18-150, Exhibit NG-RRP-2 (C), Schedule 7, Page 1

> Property Tax Rate 2.37%

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-510 Page 3 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration - CIP Fees Over 10 Years Calculation of Tax Depreciation and Repairs Deduction -30 Years

									_			
Year			$\frac{1}{(a)}$	$\frac{2}{(b)}$	3 (c)	4 (d)	5 (e)	<u>6</u> (f)	7 (g)	(h)	9 (i)	$\frac{10}{(j)}$
Federal Tax Depreciation			(u)	(0)	(c)	(u)	(c)	(1)	(5)	(11)	(1)	0
Capital Repairs Deduction (1) Plant Additions	Page 2, Line (3)		\$300.589.000	\$282.072.000	\$263.099.000	\$243,605,000	\$223.802.000	\$208,967,000	\$194,200,000	\$178.065.000	\$161,930,000	\$135,187,000
(1) Plant Additions (2) Capital Repairs Deduction Rate	Tax Dept	1/	\$300,389,000 0.00%	\$282,072,000	\$263,099,000 0.00%	\$243,605,000 0.00%	\$225,802,000	\$208,967,000 0.00%	\$194,200,000 0.00%	\$178,065,000	\$161,930,000 0.00%	\$155,187,000 0.00%
(3) Capital Repairs Deduction	Line (1) x Line (2)	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bonus Depreciation												
(4) Plant Additions	Line (1)		\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
(5) Less Capital Repairs Deduction	Line (3)	_	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(6) Plant Additions Net of Capital Repairs Deduction	Line (4) - Line (5)		\$300,589,000	\$282,072,000	\$263,099,000	\$243,605,000	\$223,802,000	\$208,967,000	\$194,200,000	\$178,065,000	\$161,930,000	\$135,187,000
Remaining Tax Depreciation												
(7) Plant Additions(8) Less Capital Repairs Deduction	Line (1) Line (3)		\$300,589,000 \$0	\$282,072,000 \$0	\$263,099,000 \$0	\$243,605,000 \$0	\$223,802,000 \$0	\$208,967,000 \$0	\$194,200,000 \$0	\$178,065,000 \$0	\$161,930,000 \$0	\$135,187,000 \$0
(8) Less Capital Repairs Deduction (9) Less Bonus Depreciation	Line (6)		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
(10) Less Plant Additions Subject to 39 Yr Straight Line Depreciation	Per Tax Dept	1/	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
 (11) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (12) 20 YR MACRS Tax Depreciation Rates 	Line (7) - (8) - (9) - (10) IRS Publication 946, Table A-1		\$300,589,000 3,7500%	\$282,072,000 7.2190%	\$263,099,000 6.6770%	\$243,605,000 6.1770%	\$223,802,000 5,7130%	\$208,967,000 5,2850%	\$194,200,000 4.8880%	\$178,065,000 4.5220%	\$161,930,000 4.4620%	\$135,187,000 4,4610%
(12) 20 TR MACKS Tax Depreciation Rates (13) Total Tax Depreciation on 20 YR MACRS assets	Line (11) x Line (12)	-	\$11,272,088	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
(14) Direct Additions California 20 Va Carrisha Line Damas inter-	Line (10)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	60
(14) Plant Additions Subject to 39 Yr Straight Line Depreciation(15) 39 YR SL Depreciation Rates	Line (10) IRS Publication 946		2,5641%	2,5641%	2,5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	2.5641%	\$0 2.5641%
(16) Total Tax Depreciation on 39 YR SL assets	Line (14) * Line (15)	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(17) Total Tax Depreciation and Repairs Deduction	Sum of Lines (3), (13), (16)	_	\$11,272,088	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
					* *	\$0	e0					
(18) Includable Cost of Removal	Page 2, Line (4)		\$30,013,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	0	-							•			
(18) Includable Cost of Removal(19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal	Page 2, Line (4) Line (17) through (18)	-	\$30,013,500 \$41,285,588	\$0 \$20,362,778	\$0 \$17,567,120	\$0 \$15,047,481	\$0 \$12,785,808	\$0 \$11,043,906	\$0 \$9,492,496	\$0 \$8,052,099	\$0 \$7,225,317	\$0 \$6,030,692
(19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal	0	-							•			
(19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction	Line (17) through (18)	-	\$41,285,588	\$20,362,778	\$17,567,120	\$15,047,481	\$12,785,808	\$11,043,906	\$9,492,496	\$8,052,099	\$7,225,317	\$6,030,692
(19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal	0	-							•			
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions 	Line (17) through (18)	-	\$41,285,588 \$300,589,000	\$20,362,778 \$282,072,000	\$17,567,120 \$263,099,000	\$15,047,481 \$243,605,000	\$12,785,808 \$223,802,000	\$11,043,906 \$208,967,000	\$9,492,496 \$194,200,000	\$8,052,099 \$178,065,000	\$7,225,317	\$6,030,692 \$135,187,000
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction 	Line (17) through (18) Line (1) Line (2)	-	\$41,285,588 \$300,589,000 0.00%	\$20,362,778 \$282,072,000 0.00%	\$17,567,120 \$263,099,000 0.00%	\$15,047,481 \$243,605,000 0.00%	\$12,785,808 \$223,802,000 0.00%	\$11,043,906 \$208,967,000 0.00%	\$9,492,496 \$194,200,000 0.00%	\$8,052,099 \$178,065,000 0.00%	\$7,225,317 \$161,930,000 0.00%	\$6,030,692 \$135,187,000 0.00%
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction Remaining Tax Depreciation (23) Plant Additions 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20)	-	\$41,285,588 \$300,589,000 0.00% \$0 \$300,589,000	\$20,362,778 \$282,072,000 0.00% \$0 \$282,072,000	\$17,567,120 \$263,099,000 0.00% \$0 \$263,099,000	\$15,047,481 \$243,605,000 0.00% \$0 \$243,605,000	\$12,785,808 \$223,802,000 0.00% \$0 \$223,802,000	\$11,043,906 \$208,967,000 0.00% \$0 \$208,967,000	\$9,492,496 \$194,200,000 0.00% \$0 \$194,200,000	\$8,052,099 \$178,065,000 0.00% \$0 \$178,065,000	\$7,225,317 \$161,930,000 0.00% \$0 \$161,930,000	\$6,030,692 \$135,187,000 0.00% \$0 \$135,187,000
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction Remaining Tax Depreciation (23) Plant Additions (24) Less Capital Repairs Deduction 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) Line (22)	-	\$41,285,588 \$300,589,000 0.00% \$0 \$300,589,000 \$0	\$20,362,778 \$282,072,000 0.00% \$0 \$282,072,000 \$0	\$17,567,120 \$263,099,000 0.00% \$0 \$263,099,000 \$0 \$0	\$15,047,481 \$243,605,000 0.00% \$0 \$243,605,000 \$0	\$12,785,808 \$223,802,000 0.00% \$0 \$223,802,000 \$0 \$223,802,000 \$0	\$11,043,906 \$208,967,000 0.00% \$0 \$208,967,000 \$0	\$9,492,496 \$194,200,000 0.00% \$0 \$194,200,000 \$0	\$8,052,099 \$178,065,000 0.00% \$0 \$178,065,000 \$0	\$7,225,317 \$161,930,000 0.00% \$0 \$161,930,000 \$0	\$6,030,692 \$135,187,000 0.00% \$0 \$135,187,000 \$0 \$0
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction Remaining Tax Depreciation (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) Line (22) Per Tax Dept		\$41,285,588 \$300,589,000 0.00% \$0 \$300,589,000 \$0 \$0 \$0 \$0	\$20,362,778 \$282,072,000 0.00% \$0 \$282,072,000 \$0 \$0 \$0 \$0	\$17,567,120 \$263,099,000 0.00% \$0 \$263,099,000 \$0 \$0 \$0 \$0	\$15,047,481 \$243,605,000 0.00% \$0 \$243,605,000 \$0 \$0 \$0 \$0	\$12,785,808 \$223,802,000 0.00% \$0 \$223,802,000 \$0 \$0 \$0 \$0 \$0	\$11,043,906 \$208,967,000 0.00% \$0 \$208,967,000 \$0 \$0 \$0 \$0 \$0	\$9,492,496 \$194,200,000 0.00% \$0 \$194,200,000 \$0 \$0 \$0 \$0	\$8,052,099 \$178,065,000 0.00% \$0 \$178,065,000 \$0 \$0 \$0 \$0 \$0	\$7,225,317 \$161,930,000 0.00% \$0 \$161,930,000 \$0 \$0 \$0 \$0 \$0	\$6,030,692 \$135,187,000 0.00% \$0 \$135,187,000 \$0 \$0 \$0 \$0
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction Remaining Tax Depreciation (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (26) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (27) 20 YR MACRS Tax Depreciation Rates 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) Line (22)		\$41,285,588 \$300,589,000 0.00% \$0 \$300,589,000 \$0 \$300,589,000 3,7500%	\$20,362,778 \$282,072,000 0.00% \$0 \$282,072,000 \$0 \$0 \$0 \$282,072,000 \$0 \$0 \$282,072,000 \$0 \$0 \$0 \$282,072,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$17,567,120 \$263,099,000 0.00% \$0 \$263,099,000 \$263,099,000 6.6770%	\$15,047,481 \$243,605,000 0.00% \$0 \$243,605,000 \$0 \$243,605,000 6.1770%	\$12,785,808 \$223,802,000 0.00% \$0 \$223,802,000 \$0 \$0 \$223,802,000 \$0 \$223,802,000 \$0 \$0 \$223,802,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$11,043,906 \$208,967,000 0.00% \$0 \$208,967,000 \$0 \$208,967,000 \$28,80%	\$9,492,496 \$194,200,000 0.00% \$0 \$194,200,000 \$0 \$194,200,000 4.8880%	\$8,052,099 \$178,065,000 0.00% \$0 \$178,065,000 \$0 \$178,065,000 4,5220%	\$7,225,317 \$161,930,000 0.00% \$0 \$161,930,000 \$0 \$161,930,000 \$161,930,000 4,4620%	\$6,030,692 \$135,187,000 0.00% \$0 \$135,187,000 \$0 \$0 \$135,187,000 \$0 \$135,187,000 4,4610%
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction Remaining Tax Depreciation (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (26) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) Per Tax Dept Line (23) - Line (24) - Line (25)	- - 1/_	\$41,285,588 \$300,589,000 0.00% \$0 \$300,589,000 \$0 \$300,589,000 \$0 \$300,589,000	\$20,362,778 \$282,072,000 0.00% \$0 \$282,072,000 \$0 \$282,072,000 \$0 \$282,072,000	\$17,567,120 \$263,099,000 0.00% \$0 \$263,099,000 \$0 \$263,099,000 \$0 \$263,099,000	\$15,047,481 \$243,605,000 0.00% \$0 \$243,605,000 \$0 \$243,605,000 \$0 \$243,605,000	\$12,785,808 \$223,802,000 0.00% \$0 \$223,802,000 \$0 \$223,802,000 \$0 \$223,802,000	\$11,043,906 \$208,967,000 0.00% \$0 \$208,967,000 \$0 \$208,967,000 \$0 \$208,967,000	\$9,492,496 \$194,200,000 0.00% \$0 \$194,200,000 \$0 \$194,200,000	\$8,052,099 \$178,065,000 0.00% \$0 \$178,065,000 \$0 \$178,065,000 \$0 \$178,065,000	\$7,225,317 \$161,930,000 0.00% \$0 \$161,930,000 \$0 \$161,930,000 \$161,930,000	\$6,030,692 \$135,187,000 0.00% \$0 \$135,187,000 \$0 \$0 \$135,187,000
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction Remaining Tax Depreciation (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (26) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (27) 20 YR MACRS Tax Depreciation Rates 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) Line (20) Per Tax Dept Line (23) - Line (25) IRS Publication 946, Table A-1	- - 1/	\$41,285,588 \$300,589,000 0.00% \$0 \$300,589,000 \$0 \$300,589,000 3,7500%	\$20,362,778 \$282,072,000 0.00% \$0 \$282,072,000 \$0 \$0 \$0 \$282,072,000 \$0 \$0 \$282,072,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$17,567,120 \$263,099,000 0.00% \$0 \$263,099,000 \$263,099,000 6.6770%	\$15,047,481 \$243,605,000 0.00% \$0 \$243,605,000 \$0 \$243,605,000 6.1770%	\$12,785,808 \$223,802,000 0.00% \$0 \$223,802,000 \$0 \$0 \$223,802,000 \$0 \$223,802,000 \$0 \$0 \$223,802,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$11,043,906 \$208,967,000 0.00% \$0 \$208,967,000 \$0 \$208,967,000 \$28,80%	\$9,492,496 \$194,200,000 0.00% \$0 \$194,200,000 \$0 \$194,200,000 4.8880%	\$8,052,099 \$178,065,000 0.00% \$0 \$178,065,000 \$0 \$178,065,000 4,5220%	\$7,225,317 \$161,930,000 0.00% \$0 \$161,930,000 \$0 \$161,930,000 \$161,930,000 4.4c20%	\$6,030,692 \$135,187,000 0.00% \$0 \$135,187,000 \$0 \$0 \$135,187,000 \$0 \$135,187,000 4,4610%
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (26) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (27) Z0 YR MACRS Tax Depreciation Rates (28) Total Tax Depreciation on 20 YR MACRS assets (29) Plant Additions Subject to 39 Yr Straight Line Depreciation (30) 39 YR SL Depreciation Rates 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) Line (22) Per Tax Dept Line (23) - Line (24) - Line (25) IRS Publication 946, Table A-1 Line (26) x Line (27) Line (25) IRS Publication 946	- - 1/_	\$41,285,588 \$300,589,000 0.00% \$0 \$300,589,000 3.00 \$300,589,000 3.7500% \$11,272,088 \$0 2.5641%	\$20,362,778 \$282,072,000 0.00% \$0 \$282,072,000 \$0 \$282,072,000 7.2190% \$20,362,778 \$0 2.5641%	\$17,567,120 \$263,099,000 0.00% \$0 \$263,099,000 6.070% \$17,567,120 \$0 \$263,099,000 6.6770% \$17,567,120	\$15,047,481 \$243,605,000 0.00% \$0 \$243,605,000 \$0 \$243,605,000 6.1770% \$15,047,481 \$0 0.2.5641%	\$12,785,808 \$223,802,000 0.00% \$0 \$223,802,000 \$0 \$223,802,000 5.7130% \$12,785,808 \$0 2.5641%	\$11,043,906 \$208,967,000 0.00% \$0 \$208,967,000 \$208,967,000 \$208,967,000 \$208,967,000 \$28,50% \$11,043,906 \$0 2.5641%	\$9,492,496 \$194,200,000 0.00% \$0 \$194,200,000 \$0 \$194,200,000 4.8880% \$9,492,496 \$0 2.5641%	\$8,052,099 \$178,065,000 0.00% \$0 \$178,065,000 4.5220% \$8,052,099 \$8,052,099 \$8,052,099 \$8,052,099 \$8,052,099 \$8,052,099	\$7,225,317 \$161,930,000 0.00% \$0 \$161,930,000 \$0 \$161,930,000 4.4620% \$7,225,317 \$0 2.5641%	\$6,030,692 \$135,187,000 0.00% \$0 \$135,187,000 \$0 \$135,187,000 4.4610% \$6,030,692 \$0 2.5641%
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction Remaining Tax Depreciation (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (26) Remaining Tax Depreciation Rates (27) Total Tax Depreciation on 20 YR MACRS Tax Depreciation (28) Total Tax Depreciation on 20 YR MACRS assets (29) Plant Additions Subject to 39 Yr Straight Line Depreciation 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) Line (20) Per Tax Dept Line (23) - Line (24) - Line (25) IRS Publication 946, Table A-1 Line (26) x Line (27) Line (25)	- - - -	\$41,285,588 \$300,589,000 0.00% \$0 \$300,589,000 \$0 \$300,589,000 3,7500% \$11,272,088 \$0	\$20,362,778 \$282,072,000 0.00% \$0 \$282,072,000 \$0 \$0 \$282,072,000 \$282,072,000 7.2190% \$20,362,778 \$0	\$17,567,120 \$263,099,000 0.00% \$0 \$263,099,000 \$0 \$0 \$263,099,000 6.6770% \$17,567,120 \$0	\$15,047,481 \$243,605,000 0.00% \$0 \$243,605,000 \$0 \$243,605,000 6.1770% \$15,047,481 \$0	\$12,785,808 \$223,802,000 0.00% \$0 \$223,802,000 \$0 \$0 \$223,802,000 \$0 \$0 \$223,802,000 \$0 \$12,785,808 \$12,785,808 \$0 \$0 \$0 \$0 \$12,785,808 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$11,043,906 \$208,967,000 0.00% \$0 \$208,967,000 \$208,967,000 \$28,50% \$11,043,906 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$9,492,496 \$194,200,000 0.00% \$0 \$194,200,000 \$0 \$194,200,000 4.8880% \$9,492,496 \$0	\$8,052,099 \$178,065,000 0.00% \$0 \$178,065,000 \$0 \$178,065,000 \$178,065,000 4.5220% \$8,052,099 \$0	\$7,225,317 \$161,930,000 0.00% \$0 \$161,930,000 \$0 \$161,930,000 4.4c20% \$7,225,317 \$0	\$6,030,692 \$135,187,000 0.00% \$0 \$135,187,000 \$0 \$135,187,000 \$135,187,000 4.4610% \$6,030,692 \$0
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (26) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (27) Z0 YR MACRS Tax Depreciation Rates (28) Total Tax Depreciation on 20 YR MACRS assets (29) Plant Additions Subject to 39 Yr Straight Line Depreciation (30) 39 YR SL Depreciation Rates 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) Line (22) Per Tax Dept Line (23) - Line (24) - Line (25) IRS Publication 946, Table A-1 Line (26) x Line (27) Line (25) IRS Publication 946	- - 1/	\$41,285,588 \$300,589,000 0.00% \$0 \$300,589,000 3.00 \$300,589,000 3.7500% \$11,272,088 \$0 2.5641%	\$20,362,778 \$282,072,000 0.00% \$0 \$282,072,000 \$0 \$282,072,000 7.2190% \$20,362,778 \$0 2.5641%	\$17,567,120 \$263,099,000 0.00% \$0 \$263,099,000 6.070% \$17,567,120 \$0 \$263,099,000 6.6770% \$17,567,120	\$15,047,481 \$243,605,000 0.00% \$0 \$243,605,000 \$0 \$243,605,000 6.1770% \$15,047,481 \$0 0.2.5641%	\$12,785,808 \$223,802,000 0.00% \$0 \$223,802,000 \$0 \$223,802,000 5.7130% \$12,785,808 \$0 2.5641%	\$11,043,906 \$208,967,000 0.00% \$0 \$208,967,000 \$208,967,000 \$208,967,000 \$208,967,000 \$28,50% \$11,043,906 \$0 2.5641%	\$9,492,496 \$194,200,000 0.00% \$0 \$194,200,000 \$0 \$194,200,000 4.8880% \$9,492,496 \$0 2.5641%	\$8,052,099 \$178,065,000 0.00% \$0 \$178,065,000 4.5220% \$8,052,099 \$8,052,099 \$8,052,099 \$8,052,099 \$8,052,099 \$8,052,099	\$7,225,317 \$161,930,000 0.00% \$0 \$161,930,000 \$0 \$161,930,000 4.4620% \$7,225,317 \$0 2.5641%	\$6,030,692 \$135,187,000 0.00% \$0 \$135,187,000 \$0 \$135,187,000 4.4610% \$6,030,692 \$0 2.5641%
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction (23) Plant Additions (24) Less Capital Repairs Deduction (25) Less Plant Additions Subject to 39 Yr Straight Line Depreciation (26) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (27) Tax Depreciation on 20 YR MACRS Tax Depreciation (28) Total Tax Depreciation on 20 YR MACRS assets (29) Plant Additions Subject to 39 Yr Straight Line Depreciation (30) 39 YR SL Depreciation Rates (31) Total Tax Depreciation ates 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) Line (22) Per Tax Dept Line (23) - Line (24) - Line (25) IRS Publication 946, Table A-1 Line (25) IRS Publication 946 Line (25) IRS Publication 946 Line (29) * Line (30)	- - - -	\$41,285,588 \$300,589,000 0.00% \$0 \$300,589,000 3.7500% \$11,272,088 \$0 2.5641% \$0	\$20,362,778 \$282,072,000 0.00% \$0 \$282,072,000 \$0 \$282,072,000 7.2190% \$20,362,778 \$0 2.5641% \$0	\$17,567,120 \$263,099,000 0.00% \$0 \$263,099,000 6.6770% \$17,567,120 \$0 2.5641% \$0	\$15,047,481 \$243,605,000 0.00% \$0 \$243,605,000 \$0 \$243,605,000 6.1770% \$15,047,481 \$0 2.5641% \$0	\$12,785,808 \$223,802,000 0.00% \$0 \$223,802,000 \$0 \$223,802,000 \$0 \$223,802,000 \$12,785,808 \$12,785,808 \$0 2.5641% \$0	\$11,043,906 \$208,967,000 0.00% \$0 \$208,967,000 \$208,967,000 \$22850% \$11,043,906 \$11,043,906 \$11,043,906 \$0 2.5641% \$0	\$9,492,496 \$194,200,000 0.00% \$0 \$194,200,000 \$0 \$194,200,000 4.8880% \$9,492,496 \$0 2.5641% \$0	\$8,052,099 \$178,065,000 0.00% \$0 \$178,065,000 \$178,065,000 4.5220% \$8,052,099 \$0 2.5641% \$0	\$7,225,317 \$161,930,000 0.00% \$0 \$161,930,000 \$161,930,000 4.4620% \$7,225,317 \$0 2.5641% \$0	\$6,030,692 \$135,187,000 0.00% \$0 \$135,187,000 \$0 \$135,187,000 4.4610% \$6,030,692 \$0 2.5641% \$0
 (19) Total Federal Tax Depreciation, Repairs Deduction and Cost of Removal State Tax Deduction (20) Plant Additions (21) Capital Repairs Deduction Rate (22) Capital Repairs Deduction Remaining Tax Depreciation (23) Plant Additions Subject to 39 Yr Straight Line Depreciation (25) Less Plant Additions Subject to 30 YR MACRS Tax Depreciation (26) Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation (27) 20 YR MACRS Tax Depreciation Rates (28) Total Tax Depreciation on 20 YR MACRS assets (29) Plant Additions Subject to 39 Yr Straight Line Depreciation (30) 39 YR SL Depreciation Rates (31) Total Tax Depreciation on 39 YR SL assets (32) Total Tax Depreciation and Repairs Deduction 	Line (17) through (18) Line (1) Line (2) Line (20) x Line (21) Line (20) x Line (21) Per Tax Dept Line (23) - Line (24) - Line (25) IRS Publication 946, Table A-1 Line (25) x Line (27) Line (25) IRS Publication 946 Line (29) * Line (30) Line (22) + Line (28) + Line (31)	- - - -	\$41,285,588 \$300,589,000 0.00% \$0 \$300,589,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$20,362,778 \$282,072,000 0.00% \$0 \$282,072,000 \$0 \$0 \$282,072,000 7.2190% \$20,362,778 \$0 2.5641% \$0 \$20,362,778	\$17,567,120 \$263,099,000 0.00% \$0 \$263,099,000 66770% \$17,567,120 \$0 2.5641% \$0 \$17,567,120	\$15,047,481 \$243,605,000 0.00% \$0 \$243,605,000 \$0 \$243,605,000 \$15,047,481 \$0 \$15,047,481	\$12,785,808 \$223,802,000 0.00% \$0 \$223,802,000 \$0 \$0 \$223,802,000 \$.7130% \$12,785,808 \$0 2.5641% \$0 \$12,785,808	\$11,043,906 \$208,967,000 0.00% \$0 \$208,967,000 \$208,967,000 \$228,0% \$11,043,906 \$11,043,906	\$9,492,496 \$194,200,000 0.00% \$0 \$194,200,000 \$0 \$194,200,000 4.8880% \$9,492,496 \$0 2.5641% \$0 \$9,492,496	\$8,052,099 \$178,065,000 0.00% \$0 \$178,065,000 \$0 \$178,065,000 4.5220% \$8,052,099 \$0 2.5641% \$0 \$8,052,099	\$7,225,317 \$161,930,000 0.00% \$0 \$161,930,000 \$0 \$0 \$161,930,000 4.4620% \$7,225,317 \$0 2.5641% \$0 \$7,225,317	\$6,030,692 \$135,187,000 0.00% \$0 \$135,187,000 \$0 \$135,187,000 4.4610% \$6,030,692 \$0 2.5641% \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0

Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75 Attachment EDC-2-5-10 Page 4 of 5 H.O. Zilgme

Massachusetts Electric Company DG Capital Investment Recovery Illustration MACRS Table

MACRS DEPRECIATION BY CLASS OF PROPERTY

Year	3-year	5-year	7-year	10-year	15-year	20-year
1	33.33%	20.00%	14.29%	10.00%	5.00%	3.75%
2	44.45	32	24.49	18	9.5	7.219
3	14.81	19.2	17.49	14.4	8.55	6.677
4	7.41	11.52	12.49	11.52	7.7	6.177
5		11.52	8.93	9.22	6.93	5.713
6		5.76	8.92	7.37	6.23	5.285
7			8.93	6.55	5.9	4.888
8			4.46	6.55	5.9	4.522
9				6.56	5.91	4.462
10				6.55	5.9	4.461
11				3.28	5.9	4.462
12					5.9	4.461
13					5.91	4.462
14					5.9	4.461
15					5.91	4.462
16					2.95	4.461
17						4.462
18						4.461
19						4.462
20						4.461
21						2.231

Massachusetts Electric Company DG Capital Investment Recovery Illustration Cost of Capital

	Description	Capital Structure (a)	Cost Rate (b)	Weighted Return (c) = (a) x (b)	Taxes (d)	$\frac{\text{Pre-tax}}{\text{Return}}$ $(e) = (c) + (d)$
1 2 3 4 5 6 7	Long Term Debt	46.43%	5.22% 1/	2.42%		2.42%
	Preferred Stock	0.08%	4.44% 1/	0.00%		0.00%
	Total Common Equity	53.49%	9.60% 3/	5.14%	1.93% 2/	7.07%
	Total Capitalization	100.00%		7.56%	1.93%	9.49%

- 1/ Company's Effective Cost of Long Term Debt and Preferred Stock
- 2/ Line 5(c) /(1-0.2732) Line 5(c)
- 3/ Per Docket No. 18-150 final order Page 497

	From Jan 1,		
Effective Tax Rate	2018		
Federal Tax Rate	21.00%		
State Tax Rate	8.00%		
Federal Deduction for State Income Taxes	1.68%		
State Tax, net of Federal Deduction	6.32%		
Federal Tax Rate	21.00%		
Effective Tax rate	27.32%		