Q. The Application indicates the financial and rate impacts of the proposed depreciation rates but does not include any of the supporting documentation/ calculations showing those impacts. Page 3 of Hydro's evidence states that the estimated impact of changing depreciation methodologies will be a 0.5% increase on retail customers and a 2% increase on industrial customers.

(a) Please provide in Excel format with formula intact the <u>financial</u> impact of moving from present depreciation methodologies to straight line methodology proposed by this Application.

(b) Please provide a detailed schedule showing the rate impact of the change in depreciation methodology and service life changes in Excel format with formulae intact and showing all assumptions. The schedule should clearly show the calculations for the impacts on each customer group.

A. (a) Refer to IC-NLH-20 Attachment 1 for the financial impact of moving from present depreciation methodologies to straight line methodology proposed by this Application, for every account.

(b) Refer to IC-NLH-20 Attachment 2 for a detailed schedule showing the rate impact of the change in depreciation methodology and service life changes.

See also the response to IC-NLH-21.

**Newfoundland and Labrador Hydro**
**Depreciation Expense Compared ($000's)**

| Line No | | Total Amount | Production Demand | Production Energy | Transmission Demand | Rural Prod & Transmission Demand | Distribution Substations Demand | Distribution Primary Lines Demand | Distribution Primary Lines Customer | Distribution Line Transformers Demand | Distribution Line Transformers Customer | Distribution Secondary Lines Demand | Distribution Secondary Lines Customer | Distribution Services Customer | Distribution Meters Customer | Distribution Street Lighting Customer | Accounting Customer | Specifically Assigned Customer |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Current Method** | | | | | | | | | | | | | | | | | |
| 1 | Island Interconnected | 35,446 | 12,743 | 7,285 | 6,374 | 1,966 | 566 | 2,732 | 700 | 186 | 329 | 393 | 436 | 160 | 141 | 71 | 280 | 1,085 |
| 2 | Newfoundland Power | 24,517 | 11,636 | 6,292 | 5,837 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 751 |
| 3 | Industrial Customers | 1,146 | 234 | 464 | 114 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 334 |
| 4 | Rural | 9,783 | 872 | 528 | 423 | 1,966 | 566 | 2,732 | 700 | 186 | 329 | 393 | 436 | 160 | 141 | 71 | 280 | 0 |
| 5 | Island Isolated | 828 | 319 | 402 | 0 | 5 | 41 | 13 | 5 | 8 | 9 | 9 | 6 | 4 | 2 | 5 | 0 | 0 |
| 6 | Labrador Isolated | 2,571 | 884 | 1,253 | 0 | 37 | 193 | 55 | 10 | 18 | 30 | 33 | 17 | 14 | 7 | 19 | 0 | 0 |
| 7 | L'Anse au Loup | 442 | 143 | 0 | 0 | 1 | 154 | 47 | 8 | 14 | 27 | 30 | 6 | 6 | 2 | 3 | 0 | 0 |
| 8 | Labrador Interconnected | 3,944 | 1,102 | 0 | 1,197 | 206 | 554 | 151 | 88 | 156 | 95 | 101 | 65 | 71 | 25 | 132 | 0 | 0 |
| | | 43,231 | 15,190 | 8,940 | 7,572 | 2,215 | 1,508 | 2,998 | 811 | 382 | 490 | 566 | 531 | 254 | 178 | 231 | 280 | 1,085 |
| | **New Method** | | | | | | | | | | | | | | | | | |
| 9 | Island Interconnected | 38,584 | 14,304 | 12,525 | 5,000 | 2,449 | 403 | 1,307 | 346 | 156 | 277 | 190 | 212 | 64 | 165 | 105 | 126 | 955 |
| 10 | Newfoundland Power | 29,101 | 13,062 | 10,819 | 4,579 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 641 |
| 11 | Industrial Customers | 1,464 | 263 | 798 | 89 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 314 |
| 12 | Rural | 8,019 | 979 | 909 | 332 | 2,449 | 403 | 1,307 | 346 | 156 | 277 | 190 | 212 | 64 | 165 | 105 | 126 | 0 |
| 13 | Island Isolated | 344 | 127 | 158 | 0 | 2 | 18 | 6 | 4 | 7 | 4 | 4 | 2 | 5 | 3 | 4 | 0 | 0 |
| 14 | Labrador Isolated | 1,336 | 444 | 636 | 0 | 24 | 101 | 28 | 9 | 16 | 15 | 16 | 7 | 19 | 10 | 12 | 0 | 0 |
| 15 | L'Anse au Loup | 209 | 58 | 0 | 0 | 1 | 69 | 21 | 7 | 12 | 11 | 13 | 3 | 8 | 3 | 3 | 0 | 0 |
| 16 | Labrador Interconnected | 1,796 | 321 | 0 | 469 | 153 | 291 | 77 | 63 | 112 | 47 | 50 | 28 | 84 | 32 | 69 | 0 | 0 |
| | | 42,269 | 15,254 | 13,320 | 5,469 | 2,629 | 882 | 1,439 | 429 | 303 | 353 | 273 | 253 | 180 | 212 | 192 | 127 | 955 |
| | **Difference** | | | | | | | | | | | | | | | | | |
| 17 | Island Interconnected | 3,138 | 1,562 | 5,240 | -1,375 | 482 | -163 | -1,425 | -354 | -29 | -52 | -203 | -223 | -96 | 23 | 34 | -154 | -130 |
| 18 | Newfoundland Power | 4,584 | 1,426 | 4,526 | -1,259 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -110 |
| 19 | Industrial Customers | 318 | 29 | 334 | -25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -20 |
| 20 | Rural | -1,764 | 107 | 380 | -91 | 482 | -163 | -1,425 | -354 | -29 | -52 | -203 | -223 | -96 | 23 | 34 | -154 | 0 |
| 21 | Island Isolated | -484 | -192 | -244 | 0 | -3 | -24 | -8 | -1 | -1 | -5 | -6 | -4 | 2 | 1 | -1 | 0 | 0 |
| 22 | Labrador Isolated | -1,235 | -441 | -617 | 0 | -13 | -92 | -27 | -1 | -2 | -16 | -17 | -10 | 5 | 3 | -7 | 0 | 0 |
| 23 | L'Anse au Loup | -233 | -84 | 0 | 0 | -0 | -85 | -26 | -1 | -2 | -16 | -17 | -4 | 2 | 1 | -1 | 0 | 0 |
| 24 | Labrador Interconnected | -2,148 | -781 | 0 | -728 | -54 | -263 | -74 | -25 | -44 | -48 | -51 | -37 | 13 | 6 | -64 | 0 | 0 |
| | | -962 | 64 | 4,380 | -2,103 | 414 | -627 | -1,559 | -382 | -79 | -137 | -293 | -278 | -74 | 34 | -38 | -154 | -130 |

**Newfoundland and Labrador Hydro**
**Depreciation Methods Compared**
**2010 Actual Cost of Service and Existing Assets 2011 Forecast Depreciation ($000's)**

| Line No | | 2010 COS Current Method | 2010 COS New Method | Difference | Increase/ Decrease(-) % |
|---|---|---|---|---|---|
| | **Total System** | | | | |
| 1 | Depreciation | 43,231 | 42,269 | (962) | -2.2% |
| 2 | Return/Other | 351,348 | 351,786 | 438 | 0.1% |
| 3 | Total Cost of Service | 394,579 | 394,055 | (524) | -0.1% |
| 4 | Average NBV | 1,368,990 | 1,369,470 | 480 | 0.0% |
| 5 | Other | 131,262 | 131,263 | 1 | 0.0% |
| 6 | Total Rate Base | 1,500,252 | 1,500,733 | 481 | 0.0% |
| 7 | Less Rural Assets | (220,924) | (223,003) | (2,079) | 0.9% |
| 8 | Rate Base available for Equity Return | 1,279,328 | 1,277,730 | (1,598) | -0.1% |
| 9 | Return on Debt | 87,352 | 87,380 | 28 | 0.0% |
| 10 | Return on Equity | 6,522 | 6,927 | 405 | 6.2% |
| | **Total Island Interconnected** | | | | |
| 11 | Depreciation | 35,446 | 38,584 | 3,138 | 8.9% |
| 12 | Return/Other | 305,900 | 306,173 | 273 | 0.1% |
| 13 | Total Cost of Service | 341,346 | 344,757 | 3,411 | 1.0% |
| 14 | Rate Base available for Equity Return | 1,230,722 | 1,228,034 | (2,688) | -0.2% |
| 15 | Rural Portion of Rate Base | 167,854 | 168,945 | 1,091 | 0.6% |
| 16 | Total Rate Base | 1,398,576 | 1,396,979 | (1,597) | -0.1% |
| 17 | Return on Debt | 81,432 | 81,339 | (93) | -0.1% |
| 18 | Return on Equity | 6,274 | 6,657 | 383 | 6.1% |
| | **Newfoundland Power** | | | | |
| 19 | Depreciation | 24,517 | 29,101 | 4,584 | 18.7% |
| 20 | Return/Other | 246,955 | 247,164 | 209 | 0.1% |
| 21 | Total Cost of Service | 271,472 | 276,265 | 4,793 | 1.8% |
| 22 | Revenue Credit | (8) | (8) | - | 0.0% |
| 23 | Deficit | 35,632 | 32,473 | (3,159) | -8.9% |
| 24 | Total Cost of Service | 307,096 | 308,730 | 1,634 | 0.5% |
| 25 | Return on Debt | 63,751 | 63,616 | (135) | -0.2% |
| 26 | Return on Equity | 5,583 | 5,927 | 344 | 6.2% |
| | **Industrial Customers** | | | | |
| 27 | Depreciation | 1,146 | 1,464 | 318 | 27.7% |
| 28 | Return/Other | 13,690 | 13,696 | 6 | 0.0% |
| 29 | Total Cost of Service | 14,836 | 15,160 | 324 | 2.2% |
| 30 | Revenue Credit | 9 | 9 | (0) | -1.0% |
| 31 | Total Cost of Service | 14,845 | 15,169 | 324 | 2.2% |
| 32 | Return on Debt | 3,014 | 3,004 | (10) | -0.3% |
| 33 | Return on Equity | 264 | 280 | 16 | 6.0% |
| | **Rural** | | | | |
| 34 | Depreciation | 9,783 | 8,019 | (1,764) | -18.0% |
| 35 | Return/Other | 45,255 | 45,313 | 58 | 0.1% |
| 36 | Total Cost of Service | 55,038 | 53,332 | (1,706) | -3.1% |
| 37 | Return on Debt | 14,667 | 14,719 | 52 | 0.4% |
| 38 | Return on Equity | 428 | 451 | 23 | 5.4% |
| | **Labrador Interconnected** | | | | |
| 39 | Depreciation | 3,944 | 1,796 | (2,148) | -54.5% |
| 40 | Return/Other | 11,179 | 11,264 | 85 | 0.8% |
| 41 | Total Cost of Service | 15,123 | 13,060 | (2,063) | -13.6% |
| 42 | Revenue Credit | 3,418 | 3,418 | - | 0.0% |
| 43 | Deficit | 4,238 | 3,818 | (420) | -9.9% |
| 44 | Total Cost of Service | 22,779 | 20,296 | (2,483) | -10.9% |

**Depreciation Methods Compared**
**2010 Actual Cost of Service and Existing Assets 2011 Forecast Depreciation ($000's)**

| Line No | | 2010 COS Current Method | 2010 COS New Method | Difference | Increase/ Decrease(-) % |
|---|---|---|---|---|---|
| 45 | Total Rate Base | 48,606 | 49,696 | 1,090 | 2.2% |
| 46 | Return on Debt | 2,830 | 2,894 | 64 | 2.3% |
| 47 | Return on Equity | 248 | 270 | 22 | 8.9% |
| | **Island Isolated** | | | | |
| 48 | Depreciation | 828 | 344 | (484) | -58.5% |
| 49 | Return/Other | 7,377 | 7,392 | 14 | 0.2% |
| 50 | Total Cost of Service | 8,206 | 7,735 | (470) | -5.7% |
| 51 | Total Rate Base | 8,972 | 9,037 | 65 | 0.7% |
| 52 | Return on Debt | 512 | 526 | 14 | 2.8% |
| 53 | Return on Equity | - | - | - | 0.0% |
| | **Labrador Isolated** | | | | |
| 54 | Depreciation | 2,571 | 1,336 | (1,235) | -48.0% |
| 55 | Return/Other | 23,294 | 23,331 | 36 | 0.2% |
| 56 | Total Cost of Service | 25,865 | 24,667 | (1,198) | -4.6% |
| 57 | Total Rate Base | 37,961 | 38,586 | 625 | 1.6% |
| 58 | Return on Debt | 2,210 | 2,247 | 36 | 1.6% |
| 59 | Return on Equity | - | - | - | 0.0% |
| | **L'Anse au Loup** | | | | |
| 60 | Depreciation | 442 | 209 | (233) | -52.7% |
| 61 | Return/Other | 3,620 | 3,627 | 7 | 0.2% |
| 62 | Total Cost of Service | 4,062 | 3,836 | (226) | -5.6% |
| 63 | Total Rate Base | 6,317 | 6,434 | 117 | 1.9% |
| 64 | Return on Debt | 368 | 375 | 7 | 1.9% |
| 65 | Return on Equity | - | - | - | 0.0% |
| | **Rural Deficit** | | | | |
| 66 | Island Interconnected | 14,893 | 13,208 | (1,685) | -11.3% |
| 67 | Island Isolated | 6,803 | 6,333 | (470) | -6.9% |
| 68 | Labrador Isolated | 19,630 | 18,432 | (1,198) | -6.1% |
| 69 | L'Anse au Loup | 1,962 | 1,736 | (226) | -11.5% |
| 70 | Rural Deficit | 43,288 | 39,708 | (3,580) | -8.3% |
| 71 | Less Revenue credits | (3,418) | (3,418) | (0) | 0.0% |
| 72 | Net Rural Deficit | 39,870 | 36,290 | (3,580) | -9.0% |