# Norfolk Power Distribution Inc

## Responses to

## The School Energy Coalition Technical Conference Questions

**1. [Staff #2, p. 2] Please provide a list of the "other charges/tariffs" referred to.**

**Response:**

Please see response to Board Staff Technical Conference Question #5.

**2. [Staff #3, p. 3] Please explain why the use of the "greater of" measurement is fair to the affected customers.**

**Response:**

Norfolk determines billing demand for General Service >50kW customers by applying the greater of the kW meter reading or 90% of the kVa demand. This is a practice that LDCs and formally Municipal Electric Utilities in Ontario have used for over 25 years. The practice was based originally on the Standard Applications of Rates and Charges for use by Municipal Electric Utilities (MEUs) in Ontario which was provided to the MEUs by the formal Ontario Hydro for the preparing of MEU rates. In paragraph 5 and 6 of Section IV of the most recent version of the Standard Applications of Rates and Charges available to Norfolk (i.e. 1996 officially unissued version) it states:

*"For customers with a power factor (the ratio of kilowatts (kW) to kilovolt-amperes (kVA)) of less than 90 %, metering that measures both kW and kVA is recommended. This permits the recovery of incremental distribution costs associated with low power factor and a more accurate monitoring of equipment loading.*

*Where demand is measured only in kilowatts, the billing demand shall be taken as the measured demand, adjusted for transformer losses, if applicable.*

*Where demand is measured only in kilovolt-amperes, the billing demand shall be taken as 90% of the measured demand, adjusted for transformer losses, if applicable.*

*Where demand is measured in both kilovolt-amperes and kilowatts, the billing demand shall be based on the greater of the measured kilowatt demand or 90% of the measured kilovolt-ampere demand resulting from a lagging power factor, regardless of when these values were established, both adjusted for transformer losses, if applicable. A measured kilovolt-ampere demand resulting from a demonstrated leading power factor shall not be used in determining the billing demand."*

As a result, Norfolk believes the use of the "greater of" measurement is fair to the affected customers as it appropriately reflects the use and demand placed on the system by those customers that potentially could have a low power factor.

3. **[Staff #11(c), p. 21] Please confirm that all dollar figures refer to 2012. If any do not, please provide the 2012 data.**

**Response:**

Norfolk confirms the dollar figures provided in response to Board Staff interrogatory #11c) are for 2012.

**4. [Staff #11(d)(ii), p. 23] Please explain how the fleet burden rates can remain the same when overhead amounts have been removed from the amount used to calculate the burden.**

**Response:**

In 2012, if CGAAP had continued, the rates would have increased to $15 for small vehicles and $46 for large vehicles. However with the removal of overhead amounts, the rate for 2012 IFRS remained the same as the year before of $14 for small vehicles and $44 for large vehicles.

5. **[Staff #17(b), p. 35] Please confirm that the impact of choosing 35 years as the useful life for pad-mounted transformers is to increase revenue requirement by about $40,000. If this is not correct, please provide the correct number with the backup calculation.**

**Response:**

The impact of choosing 35 years as the useful life for pad-mounted transformers is to increase revenue requirement by about $11,800 (compared to the typical useful life identified in the Kinectrics report of 40 years). Norfolk provides simplified calculations below using the OEB's depreciation calculation model as a guideline:

**SEC TCQ #5 - MIFRS Useful Life Comparison for Account 1850 (Pad-Mounted Transformers)**

As reported, using the 35-year useful life period adopted with MIFRS, Norfolk's revenue requirement (amortization) relating to Acct 1850 for Pad-Mounted Transformers is approximately $83,000

| Account | Description | Opening Balance (a) | Less Fully Depreciated[1] or Other Adjustments (b) | Net for Depreciation (c) = (a) - (b) | Additions (d) | Total for Depreciation (e) = (c) + ½ x (d) [2] | Weighted Avg Remaining Useful Life (f) | Depreciation Rate (g) = 1 / (f) | Depreciation Expense (h) = (e) / (f) |
|---|---|---|---|---|---|---|---|---|---|
| 18502 | Pad-Mounted Transfomers | $ 2,508,140.89 | | $ 2,508,140.89 | $ - | $ 2,508,140.89 | 30.42 | 3.3% | $ 83,000.81 |

If Norfolk had adopted the "typical" useful life of 40 years for this asset category as identified in the Kinectrics Report, Norfolk's revenue requirement (amortization) is approximately $71,200

| Account | Description | Opening Balance (a) | Less Fully Depreciated[1] or Other Adjustments (b) | Net for Depreciation (c) = (a) - (b) | Additions (d) | Total for Depreciation (e) = (c) + ½ x (d) [2] | Weighted Avg Remaining Useful Life (f) | Depreciation Rate (g) = 1 / (f) | Depreciation Expense (h) = (e) / (f) |
|---|---|---|---|---|---|---|---|---|---|
| 18502 | Pad-Mounted Transfomers | $ 2,508,140.89 | | $ 2,508,140.89 | $ - | $ 2,508,140.89 | 35.42 | 2.8% | $ 71,155.95 |

Note that the useful life of 35 years adopted for IFRS refers only to new additions. Norfolk has used the weighted average remaining useful life of the assets in this category in order to illustrate the impact of the 5-year variance on depreciation expense for 2012.

**6. [Staff #17(b) and (d), p. 35-6] Please show where in the table on page 35 is the breakdown of components of each item of PP&E. If they are not shown, please restate the table with the componentization shown.**

**Response:**

The table on page 35 provides the complete extent of componentization that Norfolk was required to complete in order to meet the standards for IFRS, specifically IAS 16. In addition to the table on page 35 of the response, Norfolk provided a Conclusion Document which outlines the components and the rationale related to identification of these specific components and their respective useful lives. Table 1 of this document provides a breakdown of the components for each major item of PP&E. Please see Appendix A – IAS 16 – Property Plant and Equipment (SEC#6).

**7. [Staff #22, p. 42 and VECC #11, p. 12] Please explain how the reduced capital cost of new assets under IFRS (due to the change in capitalization rules) is adjusted in the method of calculating capital contributions.**

**Response:**

Norfolk had not adjusted the capital contributions to reflect the IFRS impact. Norfolk has done so on the table below, similar to Board Staff #22 and VECC #11. Norfolk has revised the 2012 capital expense amounts to reflect the responses to Energy Probe Technical Conference Question #3.

| | 2008 Actual | 2009 Actual | 2010 Actual | Total 2008 2009 2010 | | 2011 Actual (Preliminary) | 2012 Test GAAP | 2012 Test IFRS |
|---|---|---|---|---|---|---|---|---|
| Contributed Capital | 331,461 | 531,414 | 819,501 | 1,682,376 | | 1,011,700 | 749,600 | 689,183 |
| Less RESOP Project (2011 #13) | | | | | | 501,700 | | |
| Normalized Contributed Capital | 331,461 | 531,414 | 819,501 | 1,682,376 | | 510,000 | | 689,183 |
| | | | | | | | | |
| **Expenses:** | | | | | | | | |
| Conduit | 54,312 | 312,485 | 160,330 | 527,127 | | 61,329 | 220,000 | 197,546 |
| UG Conductor | 176,668 | 515,163 | 255,331 | 947,162 | | 241,303 | 303,000 | 272,116 |
| Transformers | 741,072 | 421,377 | 744,522 | 1,906,971 | | 979,480 | 976,000 | 876,519 |
| Services | 285,341 | 277,123 | 271,076 | 833,540 | | 140,599 | 375,000 | 376,777 |
| Total Expenses | 1,257,393 | 1,526,148 | 1,431,259 | 4,214,800 | | 1,422,711 | 1,874,000 | 1,722,958 |
| | | | | | | | | |
| Contributions as a Percentage of Expense | 26% | 35% | 57% | 40% | | 36% | 40% | 40% |

**8. [Staff #29(b), p. 52] Please provide the 2012 reliability targets.**

**Response:**

Please see table below.

| | Including Hydro One Loss of Supply | Excluding Hydro one Loss of Supply |
|---|---|---|
| **SAIDI** | **2.400** | **1.984** |
| **SAIFI** | **2.750** | **1.790** |

**9. [Staff #56, p. 88] Please provide details of the "change in allocation of expenses" referred to, and the impacts of that change.**

**Response:**

Prior to January 1st 2012, Norfolk was allocating 35% of all Billing and Collecting expenses to water and sewer billing services to NEI. Due to a new contract with the municipality, water and sewer billing will be based on the price of $2.34 per bill, effective January 1st 2012. This will result in a total amount of $400,056 for allocation in 2012. The explanation of these changes has been provided in Exhibit 4, Tab 2, Schedule 5, pages 1 thru 3, of the application.

The impact of this change is to reduce the amount of expenses which would have been allocated for water and sewer services by $71,500. However, accepting the reduced price allowed Norfolk to keep the contract with the municipality for these services. Losing the contract would reduced the allocation to $0, with Norfolk only able to reduce costs by direct expenses of $190,296 (Exhibit 4, Tab 2, Schedule 5 p3).

**10. [Staff #62, p. 95] Please provide a copy of the Dion-Durrell valuation report.**

**Response:**

Please see response to Board Staff Technical Conference Question #3a.

**11. [SEC #2, p. 7] Please advise what comparative metrics, other than those proposed in interrogatories by SEC, the Applicant considers appropriate to benchmark or validate the performance or proposals of the Applicant. Please advise what benchmarking metrics are used by the Applicant in its management, or reporting to its Board of Directors.**

**Response:**

Norfolk believes that OM&A / Customer may be an appropriate metric for comparing the applicant to the other utilities in its cohort if one were able to factor in differences in capital requirements, operating conditions, customer density, growth rates, age of assets, and other factors. Norfolk does not have specific information on the other LDCs to provide evidence for making meaningful comparisons. Norfolk is not able to identify additional metrics that would be appropriate to benchmark its performance compared to other LDCs.

Norfolk uses the following benchmarks to monitor its performance:

(i) Return on Equity (%)
*Defn: Net Income divided by Total Equity including share capital and retained earnings*

(ii) Bad Debt as % of Revenue
*Defn: Bad Debt $ divided by Total Service Revenue*

(iii) Number of Customers per FTE
*Defn: Average Total Number of Customers divided by the Average Number of Full Time Equivalent employees*

(iv) Controllable Expense per Customer ($)
*Defn: Total Controllable Expenses divided by Average Total Number of Customers*

(v) Controllable Cost per Circuit km of Line
*Defn: Total Controllable Expenses divided by Total Circuit km of Line*

**12. [SEC #8, p. 21-3] Please provide a verbal explanation of this response at the Technical Conference.**

**Response:**

A verbal explanation will be provided at the Technical Conference.

**13. [SEC #10, p. 26] Please provide a more detailed explanation of the transfer of the fibre project from the unregulated affiliate to the Applicant.**

**Response:**

As indicated in the previous response, Norfolk intended to rent fibre from its affiliate to connect its control room in Simcoe to its stations in Delhi and other SCADA points in the area. When the affiliate cancelled their plans to complete the project, Norfolk decided to build its own fibre connection to meet its needs. Rather than start the project from nothing, Norfolk purchased the design, make ready work and materials from its affiliate at cost, for a total of $145,215. The amount was based on actual costs from 3rd parties, with no mark up applied by the affiliate.

Costs were based on the following:

| | |
|---|---|
| Material (Fibre) | $ 39,096 |
| Hydro One Quote | $ 33,755 |
| Design & Make Ready | $ 72,364 |
| Total | $145,215 |

In addition NEI was paid $4,907 for project management, based on the manager's fully burdened payroll costs on an hourly basis.

**14. [SEC #17(b), p. 40] Please explain how the value of the land is factored into the cost calculation for the purposes of determining a fair rent.**

**Response:**

Fair rent was originally based on what Norfolk believed to be fair market value for renting office space of that size, in which the land was implicitly included. In its response to Schools Interrogatory #17 Norfolk did not factor in a value for the land.

**15. [SEC #17(c), p. 41] Please provide a full list of the 2010 expenses of Norfolk Energy, together with an explanation in each case of who actually pays the expenses, the mechanism through which those expenses paid by the Applicant are allocated to the affiliate, and the place in the OM&A or other expenses of the Applicant where those expenses are included.**

**Response:**

**Table 15.1 Expenses of Norfolk Energy – 2010**

| | 1. NPDI Staff performing services for NEI | | 2. NPDI non-payroll expenses incurred while performing services for NEI | | 3. NEI Staff (Paid by NPDI, reimbursed by Norfolk Energy) | | 4. Expenses paid by NEI | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|
| **Program Expenses:** | | | | | | | | | |
| Water & Sewer Billing & Collecting | $248,561 | 1 | $234,653 | 5 | | | $3,043 | 14 | **$486,257** |
| Home Comfort Division | $13,777 | 2 | | | | | $47,922 | 15 | **$61,699** |
| Telecom Services (Pole Rental) | | | | | | | $20,931 | 16 | **$20,931** |
| OPA Program Consulting Expense | | | | | $81,917 | 8 | | | **$81,917** |
| CDM Consulting Expense | | | | | | | | | **$ -** |
| Street Light Maintenance | $42,175 | 3 | $45,342 | 6 | | | | | **$87,517** |
| | **$304,513** | | **$279,995** | | **$81,917** | | **$71,896** | | **$738,318** |
| **General & Admin Expenses** | | | | | | | | | |
| Salaries & Expenses | $32,378 | 4 | | | $67,737 | 9 | $11,136 | 17 | **$111,251** |
| Hold-Co Management Fees | | | | | $8,278 | 10 | | | **$8,278** |
| Office Rent | | | | | | | $9,600 | 18 | **$9,600** |
| Office Expenses | | | $7,466 | 7 | | | $14,807 | 19 | **$22,273** |
| Home Comfort Marketing & General/Admin Expenses | | | | | $99,662 | 11 | $37,372 | 20 | **$137,034** |
| Telecom Marketing & General/Admin Expenses | | | | | $18,897 | 12 | $2,513 | 21 | **$21,410** |
| Billing System Conversion Expenses | | | | | $28,998 | 13 | $1,037 | 22 | **$30,035** |
| | **$32,378** | | **$7,466** | | **$223,571** | | **$76,465** | | **$339,881** |
| **TOTAL NORFOLK ENERGY EXPENSE BY PAYMENT TYPE** | **$336,891** | | **$287,461** | | **$305,488** | | **$148,361** | | **$1,078,199** |

In the table above, columns 1, 2 and 3 contain expenses that the applicant initially pays and then recovers those amounts from Norfolk Energy. When the expenses are paid, the applicant debits the applicable expense account and bills NEI by creating a receivable and crediting the same expense account. Therefore no expenses related to NEI are reported in the applicants OM&A. Table 15.2 below provides the allocation method of expenses as well as additional account details and method of recovery.

## Table 15.2 Additional Details of Allocations for Expenses of Norfolk Energy – 2010

| | Initial Payment | Mechanism for recovery from affiliate | Expense account details of applicant | Allocation Method |
|---|---|---|---|---|
| 1 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy quarterly, NEI reimburses NPDI by cheque | Billing & Collecting Accounts (Accounts 53050 to 53400); Offset by credit to expense | #1 and #5 comprise 35% of Billing and Collecting Expenses |
| 2 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy quarterly, NEI reimburses NPDI by cheque | Billing & Collecting Accounts (Accounts 53050 to 53400); Offset by credit to expense | Actual payroll costs (determined by timesheets); plus payroll burden |
| 3 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy monthly; NEI reimburses NPDI by cheque | Not included in the accounts of the applicant (costs accumulated in billable work orders, cleared out when billed to NEI) | Actual payroll costs (determined by timesheets); plus payroll burden |
| 4 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy monthly; NEI reimburses NPDI by cheque | Not included in the accounts of the applicant (costs accumulated in billable work orders, cleared out when billed to NEI) | Actual payroll costs (determined by timesheets); plus payroll burden |
| 5 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy quarterly, NEI reimburses NPDI by cheque | Billing & Collecting Accounts (Accounts 53050 to 53400); Offset by credit to expense | #1 and #5 comprise 35% of Billing and Collecting Expenses |
| 6 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy monthly; NEI reimburses NPDI by cheque | Not included in the accounts of the applicant (costs accumulated in billable work orders, cleared out when billed to NEI) | Actual equipment & material costs charged directly to billable work order. |
| 7 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy monthly; NEI reimburses NPDI by cheque | Not included in the accounts of the applicant (costs accumulated in billable work orders, cleared out when billed to NEI) | Actual invoices and costs charged directly to billable work order. |
| 8 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy monthly; NEI reimburses NPDI by cheque | Not included in the accounts of the applicant (costs accumulated in special work orders, cleared out when billed to NEI) | Actual payroll costs (determined by timesheets); plus payroll burden to cover benefits. |
| 9 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy monthly; NEI reimburses NPDI by cheque | Not included in the accounts of the applicant (costs accumulated in special work orders, cleared out when billed to NEI) | Actual payroll costs (determined by timesheets); plus payroll burden to cover benefits. |
| 10 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy monthly; NEI reimburses NPDI by cheque | Not included in the accounts of the applicant (costs accumulated in special work orders, cleared out when billed to NEI) | Actual payroll costs (determined by timesheets); plus payroll burden to cover benefits. |
| 11 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy monthly; NEI reimburses NPDI by cheque | Not included in the accounts of the applicant (costs accumulated in special work orders, cleared out when billed to NEI) | Actual payroll costs (determined by timesheets); plus payroll burden to cover benefits. |
| 12 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy monthly; NEI reimburses NPDI by cheque | Not included in the accounts of the applicant (costs accumulated in special work orders, cleared out when billed to NEI) | Actual payroll costs (determined by timesheets); plus payroll burden to cover benefits. |
| 13 | Norfolk Power Distribution Inc. | Billed to Norfolk Energy monthly; NEI reimburses NPDI by cheque | Not included in the accounts of the applicant (costs accumulated in special work orders, cleared out when billed to NEI) | Actual payroll costs (determined by timesheets); plus payroll burden to cover benefits. |
| 14-22 | Norfolk Energy Inc. | Not Applicable | Not Applicable | |

Capital expenses paid by the Applicant in 2010 and then sold to Norfolk Energy include $46,104 of water heaters and $2,883 of sentinel lights. These amounts include actual costs plus 37% stores burden.

**16. [EP #9, p. 16] Please confirm that the 2011 YTD is as of September 30th. Please provide year end figures if available. For each YTD figure that is less than a pro rata share of the new 2011 forecast, please explain why the remainder of the year will have such high spending relative to the YTD period.**

**Response:**

Norfolk confirms the 2011 YTD amounts provided in response to Energy Probe Interrogatory #9 are as of September 30, 2011, with the exception of the $810,000 of General Plant. The $810,000 is the original budget number and the YTD number of $656,512 should have been reported in its place. Norfolk has provided preliminary 2011 capital expenditure results in the table below.

| Year | Total Distribution Plant ($) | Capital Contributions | Net Distribution Plant | General Plant | Total Capital Net of Contributions | $ Increase / (Decrease) | % Increase . (Decrease) |
|---|---|---|---|---|---|---|---|
| 2006 | 4,343,309 | (886,512) | 3,456,797 | 706,447 | 4,163,244 | 1,585,115 | 61% |
| 2007 | 5,883,106 | (994,216) | 4,888,890 | 575,515 | 5,464,405 | 1,301,161 | 31% |
| 2008 | 3,838,726 | (331,461) | 3,507,265 | 437,917 | 3,945,182 | (1,519,223) | -28% |
| 2009 | 9,205,936 | (531,414) | 8,674,522 | 393,832 | 9,068,354 | 5,123,172 | 130% |
| 2010 | 3,423,518 | (819,501) | 2,604,017 | 829,591 | 3,433,608 | (5,634,746) | -62% |
| 2011 | 3,973,340 | (861,340) | 3,112,000 | 810,000 | 3,922,000 | 488,392 | 14% |
| 2011 Forecast | 3,211,840 | (861,340) | 2,350,500 | 810,000 | 3,160,500 | (761,500) | -19% |
| 2011 YTD | 1,533,714 | (486,005) | 1,047,709 | 656,512 | 1,704,221 | N/A | N/A |
| 2011 Actual (Preliminary) | 3,610,300 | (1,011,700) | 2,598,600 | 688,000 | 3,286,600 | (147,008) | -4% |
| 2012 | 4,641,000 | (652,000) | 3,989,000 | 419,000 | 4,408,000 | 1,247,500 | 39% |
| 2012 Revised | 4,930,000 | (749,600) | 4,180,400 | 509,000 | 4,689,400 | 1,402,800 | 43% |

The YTD figures for total distribution plant and capital contributions are less than the pro rata share of the 2011 Actual figures. In any typical year capital spending on distribution plant is not even throughout the year. Little capital spending occurs during the winter months. In 2011 additional delay occurred as a result of engineering design constraints due to a vacancy in the Distribution Engineer position until March, followed by two technicians on short term disability. This not only caused a delay in the capital spending until later in the year but also resulted in two projects being delayed until 2012. The delay of these projects was described in the response to Energy Probe Interrogatory #10. The 2012 revised capital forecast is based on the response provided in Energy Probe TCQ #3.

**17. [EP #11, p. 19] Please reconcile the term "tentatively scheduled" with EP #9, which shows all general plant as having already been spent.**

**Response:**

In the response to Energy Probe #11, Norfolk incorrectly reported the budget amount as the amount spent YTD. Instead Norfolk should have reported that $656,512 was spent as of September 30, 2011.

**18. [EP #13, p. 21] Please restate the table to show 2008 through 2010 including transformers, in a manner consistent with 2011 and 2012.**

**Response:**

Norfolk is re-stating the table below to show 2008 through 2010 including transformers, in a manner consistent with 2011 and 2012. Please note that these are estimates only, as Norfolk did not track transformer costs with actual project costs during 2008 thru 2010.

**CAPITAL CONTRIBUTIONS VS. CAPITAL COSTS FOR CUSTOMER DEMAND PROJECTS ~ REVISED TO INCLUDE ESTIMATE OF TRANSFORMER COSTS ***

| **Capital Contributions Analysis** | **2008 Actual *** | **2009 Actual *** | **2010 Actual *** | **2011 Bridge** | **2012 Test** |
|---|---|---|---|---|---|
| New Services & Service Upgrades - Capital Expenditures | $ 531,739 | $ 315,928 | $ 458,685 | $ 446,000 | $ 450,000 |
| Subdivisions - Capital Expenditures | $ 152,858 | $ 385,445 | $ 324,557 | $ 303,000 | $ 303,000 |
| Capital Contributions Relating to Services & Subdivisions | $ 331,461 | $ 531,414 | $ 611,422 | $ 510,000 | $ 652,000 |
| **NET CAPITAL COST TO NPDI** | **$ 353,136** | **$ 169,958** | **$ 171,820** | **$ 239,000** | **$ 101,000** |
| ***% Costs Paid by Norfolk Power Distribution*** | 52% | 24% | 22% | 32% | 13% |
| | | | | | |
| **TOTAL CONTRIBUTIONS** | **$ 331,461** | **$ 531,414** | **$ 819,501** | **$ 861,340** | **$ 652,000** |
| Capital Contributions - Unrelated to Services & Subdivisions | $ - | $ - | $ 208,079 | $ 351,340 | $ - |
| Contributions Re: Svcs & Subdivisions (from Above) | $ 331,461 | $ 531,414 | $ 611,422 | $ 510,000 | $ 652,000 |

**19. [EP #19(c), p. 36] Please provide details of all adjustments to #4390 or any other account required as a result of the higher miscellaneous non-operating income and/or the change in the accounting for billable work orders.**

**Response:**

As a result in the change in accounting for billable work orders, both revenue and expenses will increase by approximately $90,000. For 2011, account 4390 is $148,000. The offsetting expense of $90,000 is reported in 5120.

This change in accounting was not reflected in the original application for 2011 or 2012. Norfolk has revised both its 2011 and 2012 forecast to reflect this change. For 2012 the revenue for account 4390 is revised to $148,000 with offsetting expenses of $90,000 to account 5120. The net amount of $58,000 is the same as provided in the original application.

20. **[EP #23(c), p. 42] Please provide a verbal explanation of these allocations at the Technical Conference.**

**Response:**

Norfolk will provide a verbal explanation of the allocations provided in response to Energy Probe Interrogatory #23c). For convenience, Norfolk provides the table from that response below.

| Name of Company | | Service Offered | Pricing Methdology | Price for the Service | Cost for the Service | |
|---|---|---|---|---|---|---|
| From | To | | | $ | $ | |
| NPDI | NEI | Management Related Services | Cost-Based | 48,000 | 48,000 | Direct Allocation |
| NPDI | NEI | Water & Sewer Billing Services | Cost-Based | 400,056 | 400,056 | Direct Allocation |
| NPDI | NEI | Hot Water Heater Billing Services | Cost-Based | N/A | N/A | |
| NPDI | NEI | Office Rental | Market | 9,600 | 9,600 | Revenue in Account 4210 |
| NPDI | NEI | Pole Rental | Market | 15,600 | 15,600 | Revenue in Account 4210 |
| NPDI | NEI | Purchasing and Inventory Services | Cost-Based | N/A | N/A | |
| NPDI | NEI | Fibre Rental | Market | 23,880 | 23,880 | Revenue in Account 4315 |
| | | | | | | |
| NPDI | NEI | Street Light & Sentinel Light Services | | | - | |
| NPDI | NEI | Labor | Cost-Plus | 40,500 | 40,500 | Direct Allocation |
| NPDI | NEI | Truck | Cost-Plus | 23,000 | 23,000 | Direct Allocation |
| NPDI | NEI | Material | Cost-Plus | 28,000 | 28,000 | Direct Allocation |
| NPDI | NEI | Total Street Light & Sentinel Light Services | Cost-Plus | 91,500 | 91,500 | Direct Allocation |
| | | | | | - | |
| NEI | NPDI | CDM Consulting Services | Market | N/A | N/A | |
| NEI | NPDI | Fibre Rental | Market | 14,400 | 14,400 | Expense Account 5013 |
| | | | | | | |
| NPDI | Norfolk County | Street Light and Sentinel Light Services | | | | |
| | | Labor | Cost-Plus | N/A | N/A | |
| | | Truck | Cost-Plus | N/A | N/A | |
| | | Material | Cost-Plus | N/A | N/A | |
| | | Total Street Light Services | Cost-Plus | N/A | N/A | |
| | | | | | | |
| NPI | NPDI | Management Fee | Cost-Based | N/A | N/A | |
| | | | | | | |
| Norfolk County | NPDI | Tower Rental | Market | 56,000 | 56,000 | Expense Account 5310 |

In addition Norfolk wishes to provide the following updates which have occurred since its response to the Energy Probe interrogatory. Norfolk will also address these changes in its verbal explanation.

1. NPDI will no longer provide Water & Sewer Billing Services to NEI. Instead NPDI will provide these services directly to Norfolk County. The price and cost of this service will not change and there will be no impact on the rate application.

2. NPDI will no longer provide Streetlight services to NEI. Norfolk will provide these services directly to Norfolk County. The cost of performing the service will remain the same, however Norfolk will charge a 15% administration fee for the service. Norfolk has increased the revenue offset in account 4375 by $13,005 to reflect this change.

3. NPDI currently rents one tower from Norfolk County and planned on renting three additional towers to host communication equipment for the AMI system. However prior to completing an agreement, alternative rental sites were sourced from 3rd parties, which met Norfolk's needs at a reduced cost. As a result of this change only one tower is rented from Norfolk County and the revised table below reflects this cost of $14,000 per year. The alternative rental sites will save approximately $30,000 per year and these savings have been reflected in Norfolk's response to Board Staff TCQ #14.

| Name of Company | | SERVICE OFFERED | Pricing Methodology | Price for the Service | Cost for the Service |
|---|---|---|---|---|---|
| FROM | TO | | | $ | $ |
| NPDI | NEI | Management Related Services | Cost-Based | 48,000 | 48,000 |
| NPDI | NEI | Office Rental | Cost-Based | 11,139 | 11,139 |
| NPDI | NEI | Pole Rental / Pole Attachment Fees | Market | 15,600 | 15,600 |
| NPDI | NEI | Fibre Rental | Market | 23,880 | 23,880 |
| | | | | | |
| NPDI | NEI | Sentinel Light Maintenance | Cost-Based | 4,800 | 4,800 |
| | | | | | |
| NEI | NPDI | Fibre Rental | Market | 14,400 | 14,400 |
| | | | | | |
| NPDI | Norfolk County | Street Light Maintenance | Cost-Plus | 99,700 | 86,700 |
| NPDI | Norfolk County | Water & Sewer Billing Services | Market | 400,056 | 400,056 |
| | | | | | |
| Norfolk County | NPDI | Tower Rental | Market | 14,000 | 14,000 |

# APPENDIX A – SEC TECHNICAL CONFERENCE QUESTIONS

# IAS 16 – Property Plan and Equipment (SEC #6)

# Conclusion Document

## Standard: IAS 16 – Property, Plant and Equipment

## Topic: Componentization and Depreciation

**Objective:**

*To document the accounting policy on componentization and depreciation of property, plant and equipment.*

**Background:**

Each part of an item of property, plant and equipment (PP&E) with a cost that is significant in relation to the total cost of the item shall be depreciated separately.

An entity should allocate the amount initially recognized in respect of an item of PP&E to its significant parts to be depreciated separately.

A significant part of an item of PP&E may have a useful life and a depreciation method that are the same as the useful life and the depreciation method of another significant part of that same item. Such parts may be grouped in determining the depreciation charge.

Depreciation is to be computed on a systematic basis over the estimated useful life of the item of PP&E. The depreciable amount of an asset is determined after deducting its residual value. In practice, the residual value of an asset is often insignificant and therefore immaterial in the calculation of the depreciable amount.

The residual value and the useful life of an asset shall be reviewed at least at each financial year-end and, if expectations differ from previous estimates, the change(s) shall be accounted for as a change in an accounting estimate in accordance with **IAS 8** *Accounting Policies, Changes in Accounting Estimates and Errors.*

Depreciation of an asset begins when it is available for use (i.e. when it is in the location and condition necessary for it to be capable of operating in the manner intended by management). Depreciation of an asset ceases at the earlier of the date that the asset is classified as held for sale in accordance with **IFRS 5** and the date that the asset is derecognized.

**Considerations:**

Significant components of PP&E will be separately accounted for under IFRS. Each significant component and the estimated useful lives, for purposes of computing depreciation expense under IFRS, will be set out in Table 1 as attached.

**Overhead system**

Four components identified – poles, primary conductor, switches and transformers. Cross arms and insulators are attached to the poles but are replaced when the pole is replaced. The life of these fixtures is limited by the life of the pole as a result of this replacement practice. Insulators may be replaced prior to the pole replacement however they are not a significant portion of the cost of a fully dressed pole. For this reason, poles will be grouped with cross arms and insulators. Conductor and switches are grouped under CGAAP, however, the cost relative to each other is significant and the useful lives differ. Conductors and switches will be segregated as separate components. Transformers and voltage regulators are part of the overhead system. There are very few voltage regulators in the system. The useful life of the transformers is comparable to the overhead switches. Since there are so few voltage regulators in the system they will be grouped with transformers. Transformers could be grouped with switches but since they are currently segregated, this segregation will be maintained.

*Poles*

The poles are wood or concrete, but most poles in the system are wood. Kinectrics identifies the typical useful life of a wood pole as 45 years. Kinectrics typical useful life is based upon high mechanical stress, low electrical load and moderate environmental factors. Mechanical stress impact on poles in Norfolk's system is typical and the amount of stress should be fairly similar amongst Ontario Utilities. Norfolk is impacted a bit more by environmental factors due to the proximity to the lake and being in rural areas (etc). This includes ice storms which also impact their mechanical stress due to the environment in the area. Since there are no indicators that are different than Kinectrics typical situation for the poles, a useful life of 45 years is chosen.

*Primary conductor*

The primary conductor typical useful life is 60 years per the Kinectrics report. Sometimes the conductor will get replaced with the pole line at 45 years of life. During rebuilds, the conductor is transferred from old poles over to the new poles. Conductor is normally replaced because they are undersized, not due to failure. In a single pole swap the conductor will not be changed, but if there is a rebuild of all poles, the conductor would likely be changed. Conversion projects are being done in neighborhoods where the age of the system is 35 to 40 years. Conversion projects are selected typically due to undersized units as opposed to the conductor being at the end of its life. When substations are being phased out, the wire will be replaced. New wire is typically installed in the conversion projects. As the wire will last longer than the poles, the useful life is greater than 45 years. Wire has been replaced due to technology changes not as a result of system failure. One-quarter of the system has been updated and the remaining portion of the system is older. There is higher electrical stress on the older system. Capital plans will require changeover sooner than the physical requirements (due to age, voltage, conversions and physical condition). Currently the older system has shorter pole spans. As a result there is less mechanical stress but perhaps greater electrical stress due to higher loading. Kinectrics based the typical useful life on moderate mechanical stress, low electrical loading and moderate environmental conditions. The updated newer system has slightly higher mechanical stress since the pole span is greater but has a lower electrical load because the system has been upgraded. The older system has lower mechanical stress, but higher electrical loading. The environmental factors vary over the territory as well. Some areas have lower environmental factors (e.g. urban areas) while the rural areas have higher environmental factors. Therefore, the factors are similar to the Kinectrics typical life factors. Therefore a useful life of 60 years is chosen for the conductor.

*Switches*

There are a variety of switch types in the system. Line switches do not typically fail before a wire/pole fails and therefore have a life of 45 or more years.~~.~~ There is a switch maintenance program in place and load interrupter switches undergo annual maintenance. Fused cutouts may not last as long as a pole (i.e. <45 years). When the fuse gets triggered there is a higher chance of failure. An inline solid switch will last much longer than a fuse switch. Currently there are more fused cutouts than there are inline solid switches in the system. The average life of fused cutouts is about 25 years. The average of the two types is about 40 years. Therefore, the useful life for overhead switches is determined to be 40 years.

*Transformers*

The typical Kinectrics useful life for Overhead Transformers of 40 years is based on low mechanical stress, moderate electrical loading and moderate environmental factors. Many of the transformers are under loaded for electrical in the rural areas. So a portion of the system is under-loaded. Therefore, the useful life would be more than typical life but not at maximum useful life. Environmental factors are higher in rural areas than in urban areas. On average the factors affecting the useful life of the transformers have the typical impact as identified in the Kinectrics report for typical useful life. The factors vary over the Norfolk territory. The average typical life is estimated for overhead transformers. Therefore, the useful life of overhead transformers is 40 years.

**Underground System**

The underground system is comprised of a number of components. Primary and secondary cable, transformers, ducts, foundations, cable chambers switchgear and switches. Some of these components are already split in the accounting records. Norfolk has all types of primary cable except for lead-PILC. Most of the cable in the system is direct buried (EXLPE/TR). Most of the cable types have similar useful lives. Primary cable will be one component. Overhead and underground secondary cable is currently combined in the accounting records. The useful life is the same for both, so overhead and underground secondary cable will be one component. Pad-mount transformers, vault transformers, UG foundations, UG vaults, UG vault and pad-mount switchgear are currently grouped in the accounting records. Switchgear and transformers have comparable useful lives. Foundations and vaults have longer useful lives than the transformer but the majority of the dollars invested are with the transformers so impact would not be significant. One component will be used for transformers comprised of: pad-mount transformers, vault transformers, UG foundations, UG vaults and UG vault and pad-mount switchgear. Underground conduit comprised of ducts, duct banks and cable chambers have similar useful lives and will be treated as one component – underground conduit.

*Cable*

Norfolk Power has not had any problems with direct buried lines. The Kinectrics report indicates typical life is based on moderate mechanical stress, electrical loading and environmental factors. Mechanical stress and electrical loading are typical in the company's system. The life of the lines is greater than typical life because of limited failures. Kinectrics typical life for EXLPE/TR is 25 years with a maximum of 30 years. Kinectrics typical life for the other cable types range from 20 to 55 years. Overall there is less of a load in the Norfolk's system. As such, the expected useful life will be greater than typical. There is also less digging in the Norfolk's territory compared with a highly urban environment. This would also suggest the life is greater than typical. Maximum life of 30 years will be used.

The Kinectrics report has a typical life from 25 to 60 years for Secondary Cable. The Kinectrics report indicates typical life is based on moderate mechanical stress, electrical loading and environmental factors. Norfolk Power has no PILC cable but has both direct buried and in duct cabling, the majority of which is buried. In duct, cable has only been used since 2000 and therefore there is not much data on typical useful life. Secondary overhead and underground cables should last the same time. There have not been many faults on underground cable which suggests that the life is longer than typical. The maximum life for direct buried cable is 40 years as per the Kinectrics report. Therefore, a useful life of 40 years is chosen for both underground cable and overhead secondary cable.

*Underground Transformers*

Norfolk has no network transformers, only pad-mounted and a few submersible transformers. This component is comprised of transformers, foundations, vaults, switches and switchgear. Foundations and vaults have a longer useful life than than transformers and switchgear but do not represent a large portion of the overall cost. The Kinectrics typical life is between 20 and 45 years for transformers and between 20 and 45 years for switches and switchgear. The Kinectrics report identifies electrical loading as moderate for transformers and low for switchgear. Environmental factors are moderate for transformers and high for switchgears. Since the underground system is not typically overloaded, there have been limited switching issues, or cable faults, so the typical useful life is appropriate. Therefore, the average useful life for the transformer component is 35 years. The transformer component includes transformers, vaults, foundations, switches and switchgear.

*Underground Conduit*

The majority of the cost is in the ducts with less insignificant costs for concrete and chambers. The Kinectrics report indicates typical useful life is 50 years. The Kinectrics report also identifies mechanical stress as high and environmental factors as moderate. As there is nothing in Norfolk's system that would suggest a difference in these factors a useful life of 50 years is chosen.

**SCADA Equipment**

Most of the stations are outdoors so environmental elements are a factor, but at a lower influence. Technological change is what drives the useful life of this equipment. Kinectrics report identifies the typical life as 20 years. The Kinectrics report also indicates that non-physical factors are high and environmental factors as low. As the company does not have 20 years of experience with SCADA and there is nothing to indicate that the useful life is different from the typical useful life, a useful life of 20 years is chosen.

**<u>Transformer Stations</u>**

Transformer stations are comprised of the power transformer, station service transformer, the station grounding transformer, the station DC system and the switchgear. The station grounding transformer has a useful life that is not significantly different than the power transformer. Therefore these transformers will be grouped together as one component under Transformers. Both the DC system and the switchgear make up significant costs of a transformer. Each will be considered as separate components.

**Power Transformers**

Norfolk currently has one transformer station. The Kinectrics report has a typical useful life for the power transformers of 45 years and is based on electrical loading and environmental factors as being moderate. The transformer is several years old but is expected that it will last the typical life given a regular maintenance schedule. Currently the electrical loading is low. Norfolk Power has selected a useful life of 45 years.

**Stations DC Systems**

The Kinectrics report shows a typical useful life of 20 years. The Kinectrics report identifies the utilization factors as moderate for electrical loading, low for environmental conditions and operating practices and moderate for maintenance practices and non-physical factors. Nothing was noted that would make the useful life different from the typical life. Therefore, useful life of 20 years is chosen.

**Station Metal Clad switchgear**
The Kinectrics report shows a typical useful life of 40 years. The report also identifies utilization factors as low for mechanical stress and electrical loading, and moderate for environmental factors, operating practices, maintenance practices and non-physical factors. As there is not a lot of operating impact (opening and closing of the breakers) the operating practices impact is moderate. Therefore, the typical useful life of 40 years is chosen.

**Distribution Station Equipment**
The majority of the equipment stays outside while some components of the stations are housed indoors. There are currently 12 distribution stations. NP5 is partly housed indoors. The stations will be phased out as the conversion project progresses, however, it is not known how quickly this will occur. The remaining life of these stations, if not removed from service due to the conversion project, would be about 20 years, based upon experience with older existing stations.

**Minor assets**

Smart meters consist of the meter and the software each having different useful lives. Smart meters have a 10 year seal requiring recertification at the end of the 10 year period. These meters are influenced by technological obsolescence. A useful life of 10 years is chosen. Smart meter software life is limited by technological changes so the life is 5 years. Residential meters tend to have a longer useful life but most of these meters are now stranded meters and the remainder will be replaced with smart meters. Wholesale, commercial and industrial meters are interval meters which are similar to smart meters in that they are electronic meters. Useful lives of these types of meters are similar so they will be grouped as one component. Experience has shown that the useful life of these meters is 25 years. CTs and PTs are a significant component of the meter inventory. CTs & PTs will be a separate component. The useful life of the CTs & PTs component is 30 years.

Office equipment is currently being depreciated over 10 years. Kinectrics identifies a useful life range of 5 to 15 years so a useful life of 10 years is chosen.

There are two different types of trucks – bucket and pickup. There is currently a 7 year replacement program for pickup trucks and a 15 year replacement program for bucket trucks. Therefore, bucket trucks useful life is 15 years and other vehicles useful life is 7 years.

Administrative buildings have a useful life of 50 years.

Station building has a Kinectrics range of useful lives of 50 to 75 years. The life of the building is similar to the administration building. As such, the useful life is 50 years.

Computer equipment is comprised of servers, laptops and printers. Servers are currently lasting 5 to 6 years. Laptops and printers are lasting 3 years. Therefore, the average is 4 years for computer equipment as a group. Useful life is therefore determined to be 4 years.

Most computer software is acquired on a 4 year licensing cycle. Therefore, useful life is determined to be 4 years.

Equipment kinectrics life range is 5 to 10 years. As the tools are used daily and newer technology forces replacement, a useful life of 5 years is chosen.

**Conclusion:**

The new levels of componentization and the corresponding useful lives will be applied beginning January 1, 2011. The net book value, as deemed cost exemption (available to rate regulated entities), will be applied so that the opening values at January 1, 2011 do not need to be restated. As such, componentization does not need to be applied retroactively.

**Table 1: NPDI – PP&E Components and Estimated Useful Lives**

| Component | Proposed Useful Life |
|---|---|
| Land | N/A |
| Overhead System | |
| - Poles | 45 |
| - Primary Conductor | 60 |
| - Overhead Switches | 40 |
| - Overhead Transformers | 40 |
| Underground System | |
| - Cable | 30 |
| - Secondary Underground Cable | 40 |
| - Secondary Overhead | 40 |
| - Underground Transformers | 35 |
| - Underground Conduit | 50 |
| SCADA Equipment | 20 |
| Transformer Stations | |
| - Power Transformers | 45 |
| - Stations DC Systems | 20 |
| - Station Metal Clad Switchgear | 40 |
| Distribution Station Equipment | 20 |
| Minor Assets | |
| Meters<br>- Smart meters<br>- Smart meter software<br>- Interval meters<br>- CTs & PTs | <br>10<br>5<br>25<br>30 |
| Office Equipment | 10 |
| Vehicles -Pickup Trucks<br>- Bucket Trucks | 7<br>15 |
| Administrative Buildings | 50 |
| Station Buildings | 50 |
| Computer Equipment | 4 |
| Computer Software | 4 |
| Equipment | 5 |