CANADIAN NIAGARA POWER INC.

Standard: Property, Plant and Equipment

Topic: Componentization and Depreciation

Conclusion Document

Objective:

To document the accounting policy on componentization and depreciation of property, plant and equipment in compliance with International Financial Reporting Standards ("IFRS") IAS 16 for the Fort Erie, Eastern Ontario Power and Port Colborne business units.

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 will be depreciated separately.

The company will 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 section 1506 *Accounting Changes* of the Accounting Standards for Private Enterprises ("ASPE").

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 in compliance with IFRS. Each significant component and the estimated useful lives, for purposes of computing depreciation expense under IFRS, are set out in Table 1 attached.

Overhead System

Four components have been identified – overhead pole – fully dressed, overhead conductor and devices, transformers, and services cable. All overhead assets purchased after January 1, 2011 will be classified into one of these four components.

Overhead pole – fully dressed:

A fully dressed pole is defined to include the pole itself, cross arms, insulators and guy wires. The company currently has a useful life of 25 years for poles, the majority of which are wood. A limited number of concrete, composite fiber glass and steel poles are in use in the system however these are not significant. One component will be used for poles regardless of type of pole.

Mechanical stress ("MC") is caused from spans of > 50 metres. Most pole spans in the system average < 50 metres and are even shorter in the urban environments, therefore the system has average MC. However, lake effect weather increases the MC, so MC stress in the system averages out to high, which is similar to the Kinectrics factor for typical useful life. The useful life of the pole is therefore 45 years (Kinectrics typical useful life). The pole is often in use for closer to 50 years due to the rate of replacement. Other parts on the fully dressed poles, such as cross arms and insulators, have useful lives that range from 40-50 years and the life is often less than 45 years. Therefore a useful life of 45 years for a fully dressed pole is appropriate.

Overhead Conductor and Devices:

The company currently uses a useful life of 33 years. The company's current operating practice for the overhead systems has been to replace the conductor when changing the pole.

As discussed above, MC in the company's system is high. The system has lower electrical loads ("EL") but the EL in the system is not low. It is not high either as compared to other utilities. The Kinectrics report has identified EL as low in order to achieve typical useful life. Historically the company has had higher environmental conditions ("EN"), but that is no longer the case. The Kinectrics report has EN set as moderate to achieve typical useful life. The company's policy is to replace the conductor at the same time as the pole; therefore, the conductor has a similar life as that of the pole. Therefore, a useful life of 45 years has been set for conductor.

Devices in the system include field control devices, line switches and RTUs. Line devices are not significant in dollar value nor do they have a significantly different useful life compared to the conductor to which they are attached.

Field control devices have a much lower life than conductors. These devices have an approximate life span of 25 years; devices are replaced on a one on one basis as they fail.

There are only a few line switch RTU's in the system (one per substation). They are currently being replaced with a modern version because of technological obsolescence. As a result of technological obsolescence RTUs will become obsolete after 10 years. These are not a significant dollar value to warrant separating out as its own component.

Therefore, devices will be grouped with conductor and given the same useful life of 45 years.

Transformers

The company currently does not separate padmount transformers from overhead transformers. The padmount transformers are not a significant portion of the general ledger balance for transformers (10-20% of the balance in the transformer account). Underground transformers are used for any new development, which is required by the city by-law. For future acquisitions, the company will set up a separate asset class for padmount transformers.

MC is low on average. Older areas of the system have higher EL but in other areas, EL is average. From an environmental point of view, the main concern is lightning strikes; however, the company does not have an unusual loss from lightning strikes, therefore, EN is average. Utilization factors are consistent with the typical factors to achieve typical useful life identified in the Kinectrics report. The company's policy is to run the transformer to failure. Therefore, the typical useful life of 40 years for transformers is appropriate. The expectation is that when the company rebuilds the underground system, the new pad mount in the subdivision would last 30 years, possibly 35, which is closer to the life of the overhead transformer, such that setting the useful life of underground transformers at 40 years is reasonable. Kinectrics typical useful life for underground padmounted transformers is 40 years as well.

Services Cable

The majority of the balance for service wire in the general ledger is underground and it will be in the future as well. The typical useful life for underground service in duct is 40 years and the actual utilization factors do not differ from the typical factors identified by Kinectrics. The current system has not yet been in place for 40 years, so the company does not have actual experiential data to determine the useful life. Therefore, the Kinetrcis typical useful life of 40 years will be used to depreciate service wire.

Underground System

Three components of the underground system have been identified – cable and devices, conduit, service cable.

Cable and Devices

Cable in the older parts of the system is non TR XLPE, direct buried most of which is fully depreciated, whereas new installations are TR XLPE, in duct. The system has lower EL but it is not low and it is not high. The utilization factors experienced in the system do not differ significantly from the typical factors identified by Kinectrics. The typical useful life identified by Kinectrics is 40 years. As the conditions in the system do not vary from the utilization factors identified by Kinectrics, a useful life of 40 years will be used to depreciate cable and devices.

Service Cable

See "Service Cable" under overhead systems.

Conduit

Conduit includes foundations, vaults, ducts and cable chambers. Conditions in the system do not vary from the utilization factors identified by Kinectrics. Useful life of 50 years is to be used to depreciate conduit assets.

SCADA

The company currently uses a useful life of 10 years. The typical useful life identified by the Kinectrics report of 20 years is reasonable. The biggest factor that affects SCADA is technology, and the SCADA equipment could be obsolete sooner than 20 years. However, the company's policy does not provide for replacement just because technology changes. The company's replacement program is replacing SCADA equipment at around 20 years of life. When installed, SCADA equipment is expected to have a 20 year life. Therefore, the useful life will be 20 years. It should be noted that computer hardware responsible for running the SCADA application would typically not be warrantied for more than five years, which is in line with the useful life associated with any non-SCADA computer hardware (see Hardware section).

Meters

Meters consist of smart meters, interval meters, CTs and PTs and stranded meters.

Smart meters are currently using a useful life of 25 years. The Kinectrics report identified the useful life of smart meters as between 5 and 15 years and the manufacturer is also suggesting a life of 15 years. Currently, the industry is using a range between 10 and 15 years for the useful life. Smart meters will be depreciated over a useful life of 15 years.

Currently, GS>50 (interval class) customer class meters have a useful life of 25 years and the CT & PTs are included with these meters. The Kinectrics report shows a range for useful lives for industrial/ commercial and wholesale meters of 25 to 35 years. For CT & PT meters, the Kinectrics report shows a useful life of 35 to 50 years. CT & PT meters are not a significant dollar value to segregate as a separate component with a separate useful life. An average of 30 years for the useful life will be applied to all meters, excluding Smart Meters.

Meters will be split into three separate accounts; smart, other and stranded so that each type can be depreciated over it useful life.

Station Equipment

Two components have been identified for station equipment: power transformers and switchgear/breakers. These components represent the significant dollar value components of a distribution station. These will be accounted for as separate components in the general ledger. There is no need to break out the power transformer into further components because of the lower dollar magnitude of those components. Stations have either breakers/switches or switchgear, however the company does have some that are a combination.

The general ledger currently includes power transformers, as well as other station equipment (such as switchgear, station switches) in the same account with a useful life of 33 years.

The company's maintenance policies and practices have been designed to provide 50 years of useful life from the station transformers. Currently, most station transformers are about 40 years old and not yet ready for replacement**.**

The system has lower electrical loading, however electrical loading is not low, nor is it high. The utilization factors do not differ from the typical identified by Kinectrics. Typical useful life is considered appropriate for the the switchgear/breakers at the Stations. All would have the same useful life of 40 years.

Given the maintenance practices and capital planning time frames associated with the power transformers, the useful life will be 50 years.

Station switches are not a significant dollar value and are to be depreciated over the same useful life as switchgear. There is no need to separate them out into a separate component.

Minor Assets

Equipment

The existing components for the minor assets are considered to be appropriate and are not significant in relation to the distribution system assets and fixed assets as a whole. The components are buildings and fixtures, transportation equipment, tools and shop & garage equipment, miscellaneous equipment, stores equipment, measurement & test equipment, power equipment, office equipment, computer software & hardware, easements and communication equipment.

Buildings and fixtures are currently using a useful life of 50 years. There is no need to change the useful life as it falls within the range that Kinectrics has stated. Buildings and fixtures will remain at the 50 year useful life.

For transportation equipment, the current practice is to turn in small vehicles after 175,000 km, which is roughly 5 years. Therefore, a useful life of 5 years will be used. For larger vehicles, such as trucks and buckets, it is typically 10 years before the company begins to think about replacing them. The truck along with the bucket have the same useful life since they are replaced at the same time since the residual value of the truck is not significant, a useful life of 10 years will be used.

The useful life of tools and shop and garage equipment will remain at 10 years, as will stores equipment, measurement and test equipment, power equipment and office equipment. Miscellaneous equipment will remain at a useful life of between 5 and 10 years depending on the equipment type. This is consistent with Kinectrics life ranges.

Software

Software consists of server, firewall, and Enterprise Microsoft applications and is currently being depreciated over a 10 year useful life. There are two main types of software; SAP software and minor software programs.

It is expected that SAP software will be upgraded/ replaced at a minimum of every 5 years; however, actual replacement is closer to 7 years between detailed upgrades. Between major revisions, 7 to 10 years can be obtained. SAP software life will remain at a useful life of 10 years.

Hardware

There is a cycle of 5 years for the replacement of hardware and desktop computers along with the related software. The company currently has a 5 year warranty. PC's and laptops will be combined and remain at a useful life of 5 years, including 5 years for the server. For minor software that is attached to the hardware, a useful life of 5 years will also be used.

For communication equipment, phones are an enterprise class product, which includes personal phones, PDA's, and two-way radios. Cell phones and smart phones, are usually purchased as disposable items and should be expensed rather than capitalized. The majority of the balance in the general ledger account relates to the two-way radio system, which has a current useful life of 20 years. The Kinectrics report has indentified a useful life of between 2 and 10 years. The useful life of communications equipment will be reduced to 10 years.

Phone systems have a long useful life however if the company takes advantage of new functions that become available, newer versions of the equipment are often needed in order to be compatible with the new functions. In the past, useful life has been 10 years, and that will continue to be used.

Easements

The cost of an easement is the cost of registering the property and it should be amortized over the life of the easement. Easement agreements are typically for a finite life of 40 years. Easements will be depreciated over the life of the agreement which is expected to be 40 years.

Conclusion:

The new levels of componentization and the corresponding useful lives will be applied with the approval by the OEB in accordance with standards for a change in accounting estimate in ASPE section 1506 *Accounting Changes*.

Table 1: PP&E Components and Estimated Useful Lives

FIXED ASSET COMPONENTS and ESTIMATED USEFUL LIVES				
Component	**Previous Component**	**Existing Useful Life**	**Kinectrics Guidelines**	**Proposed Useful Life**
Land	Land	-	N/A	-
Buildings & Fixtures	Buildings & Fixtures	50	50-75	50
Overhead Poles, fully dressed	Poles, Towers & Fixtures	25	35-75	45
Overhead Conductor & Devices (reclosers)	Overhead Conductor & Devices	33	C-50-75 D-25-55	45
Overhead Transformers	Line Transformers	33	30-60	40
Padmounted Transformers	Line Transformers	33	25-45	40
Underground Cable & Devices (direct buried)	Underground Conductor & Devices	33	25-35	40
Underground Service Cable (direct buried)	Services	33	25-40	40
Underground Conduit	Underground Conduit & Manholes	50	35-80 (1)	50
SCADA	System Supervisory Equipment	10	15-30	20
Smart Meters	Meters	15	5-15	15
Other Meters, PTs & CTs	Meters	33	35-50	30
Power Transformers	Station Equipment	33	30-60	50
Switchgear & Breakers	Station Equipment	33	30-65 (1)	40
Office Furniture and Equipment	Office Furniture and Equipment	10	5-15	10
Computer Equipment Hardware	Computer Hardware	5	3-5	5
Computer Software - SAP	Computer Software	10	N/A	10
Computer Software - Other	Computer Software	10	2-5	5
Small Vehicles	Transportation Equipment	5	5-10	5
Trucks & Buckets	Transportation Equipment	10	5-15	10
Tools, Shop, Garage Equipment	Tools, Shop, Garage Equipment	10	5-10	10
Measurement & Testing Equipment	Measurement & Testing Equipment	10	5-10	10
Stores Equipment	Stores Equipment	10	5-10	10
Power Operated Equipment	Power Operated Equipment	10	5-10	10
Miscellaneous Equipment	Miscellaneous Equipment	5-10	N/A	5-10
Communication Equipment	Communication Equipment	20	2-10	10
Easement	Land Rights	40	N/A	40

(1) Combination of a number of related categories in Kinectrics report.