

1 2-SEC-16 Capital Variances

2 **Question:**

3 [Ex.2-2-1, Attach 1] Please provide a table that shows for all material capital
 4 projects and programs undertaken since 2013, the total cost of the project as
 5 budgeted, and the final cost of the project. Please provide an explanation for all
 6 material variances +/- 10%.

7
 8 **Response:**

9 **Capital Programs**

10 A table that shows all material capital programs (i.e. above \$115,000 and occur
 11 every year) undertaken since 2013 is provided as **Attachment #1**.

12 For an explanation for all material variances (+/- 10% budget to actual), please
 13 see below:

14
 15 **Meter Installations**

16 The overall variance for this program is less than 10%, however variances exist
 17 throughout the years and primarily relate to the long lead time for procuring
 18 meters. Where the meters were budgeted in one year, they were received in the
 19 next, resulting in apparent variances between budgeted amounts and actual
 20 expenditures on a per year basis.

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 23 **Overhead and Underground Services**

Programs	GSHi Capital Programs 2013-2019			
	Total Budget	Total Spend	Variance Amt	Variance %
System Access				
Overhead Services	564,876	1,006,650	441,774	78.2%
Underground Services	534,343	792,219	257,876	48.3%
Total	1,099,219	1,798,868	699,649	63.6%

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 25
 26 As a regulatory requirement, GSHI must remain compliant with the *Distribution*
 27 *System Code* (“DSC”) by maintaining compliance with its Distribution license,
 28 adhering to its *Conditions of Service* and meeting or exceeding the Ontario
 29 Energy Board (“OEB”) service quality requirements for customer requests. Per

1 the customer growth forecast, an appropriately sized spending envelope is
 2 crafted to ensure sufficient funds are available to connect prospective load/REG
 3 customers expediently. Projected spending is dependent on new customer
 4 load/REG connections requests. Lower (or negative) growth than forecast will
 5 result in less spending required to connect prospective customers to the
 6 distribution system. Similarly, higher growth than expected will require increased
 7 spending in excess of the budgeted amount. In this area, however, the spending
 8 is driven by customers requesting connections and GSHi is not always able to
 9 predict the economics affecting these requests.

10
 11 **System Betterment**

12 This program has historically captured investments that do not fit under any other
 13 program. The exact location of an asset that will ultimately be contemplated for
 14 replacement/refurbishment with this prospective investment is unknown at the
 15 time the budget is initially developed; distribution system assets that have typically
 16 been addressed by this investment type have exhibited some of the following
 17 characteristics:

- 18
- 19 • Poor asset location (e.g., conflicts with driveway, legal right of the utility
 20 to occupy the space is absent);
- 21 • relative proportion of assets with “Very Poor” or “Poor” Health Index (HI)
 22 results; and
- 23 • present-day construction standards (are transformers ‘underslung’,
 24 clearances to ground are too low, etc.)
- 25

26 GSHi has split the System Betterment program equally into the three Program
 27 areas of System Access, System Renewal and System Service. The total
 28 spend is as follows:

Programs	GSHi Capital Programs 2013-2019			
	Total Budget	Total Spend	Variance Amt	Variance %
System Access				
System Betterment	1,096,044	1,492,814	396,770	36.2%
System Renewal				
System Betterment	1,095,544	1,492,814	397,269	36.3%
System Service				
System Betterment	1,096,044	1,492,814	396,770	36.2%
	3,287,632	4,478,441	1,190,809	36.2%

1 The cumulative program actual costs from 2013 to 2019 are \$1,190,809 (36.2%)
 2 over cumulative budget primarily due to reasons as discussed below:
 3

Programs	2013			2014			2015		
	Budget	Actual	Variance Amt	Budget	Actual	Variance	Budget	Actual	Variance
System Access									
System Betterment	142,646	172,351	29,705	\$ 143,685	\$ 199,094	\$ 55,409	\$ 158,003	\$ 252,251	\$ 94,248
System Renewal									
System Betterment	142,646	172,351	29,705	\$ 143,185	\$ 199,094	\$ 55,909	\$ 158,003	\$ 252,251	\$ 94,248
System Service									
System Betterment	142,646	172,351	29,705	\$ 143,685	\$ 199,094	\$ 55,409	\$ 158,003	\$ 252,251	\$ 94,248
	\$427,938	\$517,053	\$ 89,115	\$ 430,555	\$ 597,282	\$ 166,727	\$ 474,008	\$ 756,753	\$ 282,745
Variance (%)			20.8%			38.7%			59.6%

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Programs	2016			2017		
	Budget	Actual	Variance	Budget	Actual	Variance
System Access						
System Betterment	\$ 140,256	\$ 177,299	\$ 37,043	\$ 141,084	\$ 326,146	\$ 185,062
System Renewal						
System Betterment	\$ 140,256	\$ 177,299	\$ 37,043	\$ 141,084	\$ 326,146	\$ 185,062
System Service						
System Betterment	\$ 140,256	\$ 177,299	\$ 37,043	\$ 141,084	\$ 326,146	\$ 185,062
	\$ 420,768	\$ 531,896	\$ 111,128	\$ 423,253	\$ 978,438	\$ 555,185
Variance (%)			26.4%			131.2%

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7

8 Until 2018, GSHi used this budget to take on these smaller types of projects that
 9 came up that were not initially budgeted for. The following explains some of the
 10 projects that made up the spending in the years noted.

11
 12 2014 Variance \$166,727; After the decision to defer the 'Lo-Ellen Rebuild' was
 13 made (as discussed later in response); the resources originally allocated for that
 14 project were redirected to offset additional spending on needed 'System
 15 Betterment' jobs that contained distribution assets that required refurbishment
 16 consistent with their asset condition. The majority of the increase in actual costs
 17 as compared with the program budget is attributable to the below projects:

- 18
- 19 Hawthorne Dr Rebuild - \$89,758
- 20 Front St Padmount Install - \$95,506
- 21

1 2015: Variance \$282,745; The majority of the increase in actual costs as
 2 compared with the program budget is attributable to the below projects:

- 3
- 4 Mae St Rebuild – \$54,855
- 5 Mclean St Rebuild - \$65,371
- 6 Kingsway Line Relocation - \$63,321
- 7 Science North Overhead Build – \$84,463
- 8

9 2017: \$555,185; After the decision to defer planned rebuilds for both South Bay
 10 Rd and Arvo Rd, the resources originally allocated for that project were
 11 redirected to offset additional spending on needed ‘System Betterment’ jobs that
 12 contained distribution assets that required refurbishment consistent with their
 13 asset condition. The majority of the increase in actual costs as compared with the
 14 program budget is attributable to the below projects:

- 15
- 16 Padmount Transformer TRP174 Replacement @ 905 Prete - \$45,856
- 17 Kelly Lake Rd Reconductor - \$35,293
- 18 San Francisco St Rebuild - \$91,171
- 19 Austin St Rebuild – \$63,789
- 20 School St, Primary Dig-in - \$46,968
- 21 Algonquin/Trailridge Relocation - \$88,861
- 22 2470 South Shore Relocation - \$46,883
- 23 Pioneer Rd EVR Products - \$46,508
- 24

25 Beginning in 2018, GSHi made a significant effort to more narrowly budget this
 26 program and budget its associated projects at the outset of the budgeting
 27 process to maintain finer control and tracking of these types of projects as
 28 evidenced by an underspend in 2018 and a less than 10% overspend in 2019.

Programs	2018				2019 Bridge Year			
	Budget	Actual	Variance %	Variance	Budget	Actual	Variance %	Variance
System Access								
System Betterment	\$ 178,852	\$158,156	-12%	\$ (20,696)	\$ 191,518	\$207,517	8%	\$ 15,999
System Renewal								
System Betterment	\$ 178,852	\$158,156	-12%	\$ (20,696)	\$ 191,518	\$207,517	8%	\$ 15,999
System Service								
System Betterment	\$ 178,852	\$158,156	-12%	\$ (20,696)	\$ 191,518	\$207,517	8%	\$ 15,999
	\$ 536,555	\$474,468		\$ (62,087)	\$ 574,555	\$622,551		\$ 47,996
				-11.6%				8.4%

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1 **City Roadwork**

Programs	GSHi Capital Programs 2013-2019			
	Total Budget	Total Spend	Variance Amt	Variance %
System Access				
City Roadwork	2,281,495	1,720,939	(560,556)	-24.6%

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Upon a request by a Road Authority, GSHi is obligated to complete distribution system plant relocations as per the *Public Service on Highway Act*. Every year, the City of Greater Sudbury hosts a meeting with regional partners, of which GSHi is one, to discuss its short and long term capital spending plan for its roads, bridges, culverts and sewer infrastructure. The City's plans are incorporated into GSHi's Asset Management Process to ensure both party's construction schedules are properly aligned. Additionally, GSHi attends meetings hosted by the MTO to learn about and align the provincial body's planned construction work with GSHi's own Asset Management Process. However, these meetings occur in the early months of the same construction year, after GSHi has set its annual budget. GSHi forecasts this budget based on historical actuals and any other information GSHi has at its disposal regarding upcoming projects.

Despite the efforts put forth by all interested parties to plan for road work as comprehensibly as possible, situations inevitably arise that either accelerates or delays construction schedules for prospective right-of-way work. Accordingly, the timing and quantum for *System Access* investments is monitored continuously to ensure that sufficient business capacity exists to meet the expectations of the appropriate Road Authority. These projects cannot be deferred once the RA has notified GSHi of its intent to proceed with its road construction schedule.

It is of note that the variance in 2016 of \$170,131 is driven in large part by the implementation of an across the board 50/50 cost split between GSHi and the City of Greater Sudbury for City Road Work spending that came in to effect that year. Prior to 2016 GSHi only recovered approximately 15% of the total cost of a 'City Roadwork'- related project. After 2016 budgeting for City Roadwork reflected the new sharing arrangement.

1 **Failed Transformers**

Programs	GSHi Capital Programs 2013-2019			
	Total Budget	Total Spend	Variance	Variance %
System Renewal				
Failed Transformers	1,280,737	2,316,676	1,035,939	80.9%

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4 This investment is needed to reactively address the replacement/refurbishment
 5 of failed overhead and/or underground distribution transformer assets that are
 6 owned and operated by GSHi. Due to the relatively low consequence of failure,
 7 distribution-class transformers are replaced and managed reactively at GSHI.

8

9 Similar to Services the yearly budget is established based on historically
 10 experienced costs. However, it is very difficult to predict what equipment will fail
 11 without notice. The annual spending for this program as well as the number and
 12 type of transformers replaced are as follows:

13

	2013	2014	2015	2016	2017	2018	2019
Overhead Transformers	25	25	62	45	26	63	22
Underground Transformers	20	14	42	38	16	32	13
Total	45	39	104	83	42	95	35
Total Spend	\$ 207,884	\$ 173,492	\$ 552,325	\$ 438,522	\$ 230,949	\$ 533,204	\$ 180,301

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15 **Major Substation Repairs**

Programs	GSHi Capital Programs 2013-2019			
	Total Budget	Total Spend	Variance	Variance %
System Renewal				
Major Substation Repairs	1,884,285	1,632,515	(251,770)	-13.4%

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18 This investment is needed to reactively address the replacement/refurbishment
 19 of failed substation assets that are owned and operated by GSHI. This budget is
 20 used for (i) potential failures; and, (ii) remedial action to address areas of major
 21 concern such as safety and or operating issues. The yearly budget is
 22 established based on historical actuals; however, it is difficult to predict what the
 23 actual costs will be when it comes to failed equipment. GSHi continues to budget
 24 as best it can to ensure adequate resources are available as needed.

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26 The years that were overspent when compared to budget were 2013 and 2014.

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2 In 2013, GSHi encountered significant operational issues at four of its stations,
3 those being MS20 Long Lake, MS29 Mansour Station, MS31 Coniston and MS5
4 Arthur.
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- 6 1. MS 20 Long Lake – Replace ten breakers at a cost of \$213,500.
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- 8 2. MS 29 Mansour – Repairs required to T1 (contracted GE Canada
9 to rewind transformer) at a cost of \$99,653.
10
- 11 3. MS 31 Coniston – Removal of Josslyn Vacuum Recloser's and
12 installation of Trimod 300R Reclosers at a cost of \$37,210
13
- 14 4. MS 5 Arthur – Install sub-transmission O/H conductors and devices
15 at a cost of \$39,997, and sub-transmission U/G conductors at a
16 cost of \$40,689 for a total expenditure of \$80,686.
17

18 In 2014, the spending in this program was approximately \$639,000 and is
19 attributed to the following:

- 20 1. GSHi replaced the roof on five substations at a cost of approximately
21 \$120,000.
- 22 2. MS16 Barrydowne - the investment was approximately \$110,000 as GSHi
23 replaced a previously failed secondary bus while the station was out of
24 service for maintenance. GSHi also installed 4 new SEL-351S relays to
25 replace problematic electro-mechanical relays.
- 26 3. MS25 Copper Cliff - an investment of \$227,000 was required as GSHi
27 installed 4 new Elastimold MVRs c/w SEL-651R relays to replace
28 unreliable Joslyn Vacuum Reclosers & Faultmaster 2500s. The power
29 transformer was also replaced as the radiators were rusted and leaking
30 oil. The 44 kV overhead structure also had to be modified to
31 accommodate installation of the new transformer.
- 32 4. MS30 Coniston - an investment of \$40,000 as GSHi installed and
33 integrated Trimod 300 R Reclosers
- 34 5. MS 37 Railway - an investment of \$57,000 to replace the substation power
35 transformer, as well as install new reclosers, relays and a Remote
36 Terminal Unit for SCADA integration.
- 37 6. MS99 Portable Station - an investment of \$71,000 to replace the primary
38 cables that were stolen off of the mobile substation.

1 **Emergency Plant Replacements**

Programs	GSHi Capital Programs 2013-2019			
	Total Budget	Total Spend	Variance	Variance %
System Renewal				
Emergency Plant Maintenance	1,295,177	1,705,765	410,588	31.7%

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This investment is needed to reactively address the replacement/refurbishment of failed overhead and/or underground distribution assets (except transformers) that are owned and operated by GSHi. The yearly budget is established based on historical actual spending however it is difficult to predict if major unforeseen events, such as major weather events, will impact GSHi's system. GSHi always budgets an amount for this program to ensure resources are available when the need arises. When this program comes in under budget it is because there was no significant event that required funds not budgeted for elsewhere. The years that had spending in excess of budget were 2014, 2016, 2017 and 2018.

In 2014, the amount over budget was \$142,358 (104%). GSHi experienced a number of failures including cables, some poles and a 44kV gang operated switch.

In 2016, the amount over budget was \$99,810 (74%). GSHi experienced cable failures at its Dash substation, as well as an equipment failure in an underground parking lot which was difficult to access and other smaller emergency type jobs.

In 2017, the amount over budget was \$373,973 (276%). GSHi experienced a lightning storm, a pole fire, wood pecker damaged poles and other equipment failures.

In 2018, the amount over budget was \$277,726 (93%). Sudbury endured two storm events, which contributed \$350,000 to the cost of this program in that year. GSHi did receive insurance proceeds in the following year (which was recorded as a contribution in 2019). GSHi also experienced woodpecker damage as well as underground cable failures.

1 **Tools and Equipment**

Programs	GSHi Capital Programs 2013-2019			
	Total Budget	Total Spend	Variance	Variance %
General Plant				
Tools and Equipment	932,408	639,107	(293,301)	-31.5%

2

3 This program is required to replace major tools and equipment that have come
 4 to end of life or have become obsolete due to changing work practices, safety
 5 standards or improved technology.

6 Tool and equipment expenditures are prioritized and paced on an as-needed
 7 basis based on input from GSHi employees. Significant input is received from
 8 the Garage Mechanics, P&C Dept, Engineering Dept and line personnel, among
 9 other field staff. Failure to procure suitable new and/or refurbished tools may
 10 hinder GSHI's ability to continue to provide excellent electricity service delivery to
 11 its customers. The yearly budget is established based on historical actual
 12 requirements; however, GSHi has reduced this budget over time as spending fell
 13 short of the historically set budget.

14

15 **Building**

16 GSHi notes that overall, the Building program is less than 10% overspent.
 17 However the variances year over year highlight swings in excess of 10%. This is
 18 a result of the building renovation that GSHi undertook since 2013. In order to
 19 comply with the Accessibility for Ontarians with Disability Act, conversion from
 20 electric to gas heat, safety and security of staff and the configuration of the
 21 space, GSHi required a building renovation. GSHi considered relocating,
 22 however the cost of purchasing and renovating a new building to suit its needs
 23 exceeded the cost of renovating the existing property. GSHi also considered
 24 constructing a new building but that also exceeded the cost of the proposed
 25 renovation. While the budgets were approved in certain years the costs may
 26 have followed in the following years depending on the schedule of the
 27 renovation.

28

29 **Vehicles**

30 GSHi notes that overall the Vehicle program is less than 10% overspent. The
 31 only annual variance in excess of 10% was a spend of \$257,073 less than
 32 budget in 2015 which relates to a bucket truck that GSHi had originally budgeted
 33 in 2015 but decided to defer

1

2 **Capital Projects**

3 A table that shows all material capital projects (i.e. above \$115,000) undertaken
4 since 2013 is provided as **Attachment #2**.

5 For an explanation for all material variances (+/- 10% budget to actual), please
6 see below:

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8 **Vanier Lane Road**

9 The project costs are \$52,804 under budget (10%). The majority of the
10 underspend in this project was due to \$1,100 of actual contract labour costs
11 relating to a crane rental that was substantially below the original budgetary
12 estimate of \$15,000.

13

14 **Algonquin Rebuild**

15 Project costs are \$78,755 (110%) over budget primarily because the scope of the
16 job was altered during actual construction as compared with the original design.
17 GSHi experienced property issues which forced an unexpected change in design
18 and ultimately increased construction costs accordingly.

19

20 **Pole Replacements**

21 This project was created to capture costs associated with pole replacements
22 identified / required as a result of the Bell Fibre Op project. Costs were \$118,092
23 (46%) under budget primarily due to fewer than anticipated poles were required
24 to be upgraded.

25

26 **Pine St – 4kV Rebuild**

27 The project was overspent by \$19,302 (13%) primarily due to additional contract
28 labour costs relating to traffic control and snow removal that were both not part of
29 the original project estimate.

30

31 **Beatty**

32 The project was overspent by \$81,786 (30%) mostly due to not estimating
33 enough for operations time relating to hold-offs, switching and grounding.

34

35 **Evans Road Rebuild**

36 The scope of this project was to eliminate the restricted #6 copper conductor that
37 had been identified in a number of areas in Copper Cliff. Evans Rd was the most
38 significant area. Actual costs were \$71,264 (30%) under budget primarily

1 because crews were able to replace the restricted conductor in less time than
2 originally expected.

3
4 **Copper Cliff Gardens Rebuild**

5 There was no budget allocated for this project. It was a carryover project from the
6 previous year that should have been re-budgeted in the current year but was
7 overlooked. Costs were \$135,832.

8
9 **Lo-Ellen Park Rebuild**

10 Project costs were \$215,117 (65%) under budget. This project, which comprised
11 the rebuild of four streets, was not fully completed in 2014. The portion of the
12 distribution system encompassing the three-phase main feed was completed,
13 however the remaining laterals were not renewed during this period as originally
14 planned and are part now part of the proposed System Renewal projects in the
15 DSP.

16
17 **Woodbine/Agincourt**

18 Project costs were \$86,967 (19%) over budget primarily due to contract labour
19 costs of \$63,456 which were greater than the estimate of \$23,850 related to
20 installation of wood poles. Also, actual labour costs of \$64,999 relating to wood
21 pole installation were greater than the estimate of \$42,976.

22
23 **Raft Lk**

24 The project was under budget by \$119,759 (46%) primarily due to actual contract
25 labour costs of \$36,500 as compared with the estimated cost of \$113,500
26 because the scope of the job was reduced during actual construction as
27 compared with the original design.

28
29 **Chapman / Stafford Rebuild**

30 Project costs were higher than budget by \$74,235 (126%) primarily due to actual
31 contractor labour costs relating to pole/anchor installations which were \$17,347
32 greater than estimated. Poor soil conditions encountered by Operations during
33 pole installations resulted in an approximate \$19,000 in additional labour/vehicle
34 costs as compared with the original estimate. Costs relating to secondary service
35 replacement were higher than estimated adding an additional \$16,329 in labour
36 and materials as well as \$5,211 in contract labour.

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1 **Beverly Drive Rebuild**

2 The project was over budget by \$53,434 (45%) primarily due to secondary
3 service replacement costs added to the project scope during construction
4 resulting in an additional \$40,362. In addition, contractor labour costs relating to
5 pole/anchor installations which were \$10,538 greater than estimated.
6

7 **Griffith St.**

8 The project was over budget by \$38,190 (48%) primarily due to actual contractor
9 labour costs relating to pole/anchor installations which were \$18,480 greater than
10 estimated. Also, the original scope of the project expanded to include distribution
11 system assets across from Griffith St on York Street, which increased Operations
12 labour and vehicles costs accordingly.
13

14 **Crescent Park / Gordon Ac Rebuild**

15 The project was under budget by \$98,998 (36%) primarily due to the scope of the
16 job being reduced during actual construction as compared with the original
17 design, resulting in 521 fewer man hours compared to budget. During
18 construction, three poles were not replaced as first planned. Additionally, the
19 transfer of the existing underground secondary services to the new poles was
20 included in the original estimate; however, that work was deferred.
21

22 **Brebeuf Front Lot**

23 The project was over budget by \$92,742 (34%) primarily due to actual contractor
24 labour costs relating to pole/anchor installations and 4kV civil, which were
25 \$38,536 greater than estimated. Costs relating to secondary service
26 replacement were not estimated and were added to the project scope during
27 construction adding an additional \$37,344.
28

29 **Bloor Street**

30 The project was under budget by \$62,625 (22%) primarily due to the reduction of
31 the project scope during construction as compared with the original design.
32 During construction, the eastern limits of the project originally included a portion
33 where undergrounding was originally planned. However, this design was
34 changed. The portion that was changed had an approximate price difference of
35 \$39,526. Additionally, one pole, framing and anchoring was removed from scope
36 as a result of further design change, for a reduction in budget to actual costs of
37 approximately \$13,920.
38

1 **Mountview Crescent**

2 The project was under budget by \$16,818 (10.8%) primarily due to reduced
3 actual labour costs as compared with the estimate.
4

5 **Struthers Street**

6 The project was over budget by \$30,960 (23%) primarily due to labour costs of
7 \$20,704 associated with scheduled outages that were needed to complete the
8 project as well as contract labour costs of \$8,918 relating to snow removal that
9 were not part of the original estimate.
10

11 **Rear Line Marymount to St. Anne's Rd**

12 The project was over budget by \$77,122 (63%) primarily due a decision made to
13 alter the project scope during construction involving the replacement an old
14 padmounted transformer that fed a local high school. Costs for the transformer
15 installation totaled \$56,607. Additionally, actual construction hours were 96.5
16 greater than estimated and there were additional contract labour costs of \$3,852
17 relating to installation of a polemount, rock drill, path building and removal of
18 brush.
19

20 **Mildred Street**

21 The project was over budget by \$34,862 (25%) due to contract labour costs of
22 \$18,565 relating to backfill of poles and anchors that were not part of the original
23 estimate, as well as costs of additional contract labour associated to cut, chip
24 and haul a tree that was not part of the original estimate.
25

26 **Madeleine St**

27 The project was over budget by \$18,154 (18%) due to contract labour costs of
28 \$5,000 relating to backfill of poles and anchors as well as snow removal that
29 were not part of the original estimate, as well as additional labour costs
30 associated for one 40ft pole that was not part of the original project scope.
31

32 **Martin Ave**

33 The project was over budget by \$15,058 (15%) primarily due to contract labour
34 costs of \$20,245 relating to backfill of poles and anchors as well as snow
35 removal that were not part of the original estimate, partially offset by other project
36 under expenditures.
37
38

1 **Somers Street**

2 The project was over budget by \$55,452 (42%) mainly due to labour and material
3 costs of \$16,741 relating to backfill of poles and anchors as well as snow
4 removal that were not part of the original estimate. Additionally, \$15,640 for
5 contract labour to perform u/g secondary kick-overs and restoration was not part
6 of the original estimate. Finally, one additional wood pole was added to the
7 project scope as compared with the original design.

8

9 **Coniston Edward Station**

10 The project was underspent \$81,285 (22%) primarily due to lower than expected
11 costs from vendors relating to the purchase of a new power transformer for
12 MS30.

13

14 **Hudson St. 11F5**

15 The project was over budget by \$15,673 (15%) primarily due to contract labour
16 costs of \$14,035 relating to backfill of poles and anchors as well as snow
17 removal.

18

19 **Lansing Ave.**

20 The project was over budget by \$86,251 (32%) due to contract labour costs of
21 \$19,287 to complete u/g secondary service kick-overs that were not included in
22 the original estimate. Additionally, an increase in costs of \$ 14,035 relating to
23 backfill of poles/anchors as well as snow removal was incurred. During project
24 construction, a decision was made to add one extra pole and transformer as
25 compared with the original estimate for an increase in cost of \$17,000. Finally,
26 actual construction hours were 577.5 greater than allotted in the original project
27 estimate leading to increased costs of \$45,038. These over budget expenditures
28 were partially offset by other project under expenditures.

29

30 **Croatia Road 20F5**

31 The project was over budget by \$22,713 (15%) primarily due to additional actual
32 contract labour costs of \$15,540 which were required for rock-drilling of pole
33 holes.

34

35 **Lasalle Park Manor Underground**

36 The project was over budget by \$74,935 (23%) mainly due to actual construction
37 hours greater than allotted in the original project estimate leading to increased
38 costs of \$19,462; actual engineering costs for this project were \$16,657 higher

1 than estimated; and, contract labour costs of \$12,976 relating to customer meter
2 base change outs that were not included in the original estimate.

3
4 **9M4 Transfer Conductors (Martindale Pioneer Rd)**

5 The project was over budget by \$43,868 (10%) primarily due to four additional
6 days of labour required to construct the 12kV underbuild circuit than estimated
7 for a variance of \$14,682.

8
9 **Kathleen Voltage Conversion**

10 This project is under budget by \$208,690 (24%). The majority of the variance in
11 this project is due to less actual costs as compared with the budgeted
12 expectation for 2016 of \$160,006. In 2016, the original budget intent was to
13 approach the 4-12kV voltage conversion from the northern front. However,
14 operationally, the Control Room were concerned with loading and flexibility on
15 Cressey's feeders. Accordingly, \$138,066 of the budget from the Kathleen
16 Voltage Conversion project was shifted to the Cressey version of the voltage
17 conversion project. That year, only a few non-dual voltage transformers and
18 associated make-ready work was completed on the Kathleen side of the voltage
19 conversion zone.

20
21 **Clearwater Lake Road**

22 The project was over budget by \$138,289 (88%) primarily due to \$115,764 of
23 additional contract labour above the original estimate. Reasons for this include:
24 snow removal, installation of seven rock mount poles, pole backfilling, additional
25 installation of two 50' poles, the requirement to build up an road entrance for safe
26 access for hydro vehicles and finally, there were additional restoration costs to
27 customer's properties that occurred after the project was complete. This project
28 also had an overage of \$18,097 in material due to the requirement for an
29 additional two 50' poles, material for the seven rock mount poles, and extra
30 conductor for new customer services.

31
32 **Fourth Avenue Coniston 31F1**

33 The project was over budget by \$78,324 (50%) due mainly to project construction
34 requiring an additional 538 crew hours as compared with budget for an increase
35 in estimated project costs as compared with actual of \$57,976. In addition, there
36 were contract labour costs of \$21,806 relating to backfill of poles and anchors
37 that were not part of the original estimate, as well as \$1,583 of additional contract
38 labour costs for road building that was not part of the original estimate.

1

2 **Kathleen Station MS2**

3 The project was under budget by \$529,073 (14%). The underspending was
4 related to four areas in particular. The budget estimate for the two power
5 transformers from vendors was \$1,060,000 whereas the actual cost for the units
6 was \$624,000 for a variance of \$419,140. The 15kV switchgear was budgeted at
7 \$720,000 whereas the actual cost for the unit was \$642,613 for a variance of
8 \$48,571.

9 Actual engineering costs came in at \$40,000 where GSHi had budgeted \$96,000
10 for this project, for a variance of \$47,091. Lastly, the planned 2F4 duct bank
11 replacement was removed from the scope of work due because it was identified
12 to be in excellent condition. The existing bank was re-used, with new cables
13 installed, for a savings of \$15,027.

14

15 **Capreol Rebuild**

16 The project was under budget by \$181,308 (10%). The underspending on this
17 project was related to four areas in particular. First, the budget estimate for the
18 power transformer from vendors was \$383,180 whereas the actual cost for the
19 unit was \$285,645 for a variance of \$97,473. Second, the 15kV switchgear was
20 budgeted at \$130,000 whereas the actual cost for the unit was \$103,200 for a
21 variance of \$26,800. Third, actual engineering costs came in at \$128,833 where
22 GSHi had budgeted \$154,206 for this project, for a variance of \$25,373. Lastly,
23 the planned 32F3 duct bank replacement was removed from the scope of work
24 due to discrepancies with City of Sudbury requirements. The existing bank was
25 re-used, with new cables installed, for a savings of \$10,977.

26

27 **Regent Voltage Conversion**

28 This project was over budget by \$52,829 (14%). During project construction, a
29 decision was made to correct "alley arm" construction which resulted in replacing
30 two additional poles and installing three phase underground cabling for an
31 additional cost as compared to budget.

32

33 **Notre Dame Composite Pole Replacements**

34 The project was over budget by \$81,739 (31%) primarily due to greater actual
35 contract labour costs of \$41,688 as compared with the original estimate for
36 accessing and installing the composite poles in the swampy area near the
37 Taxation Centre. Actual operations costs to construct the project were \$10,741

1 more than estimated and the original estimate did not include engineering costs,
2 which were \$4,555.

3
4 **MS30/MS31 Grounding Improvements/Switching**

5 The project was under budget by \$20,588 (12%). During project construction,
6 several anticipated budgeted costs were not incurred. These included \$6,400 for
7 transporting the transformers to the shop, which was not required. The
8 estimated crane cost to load/unload transformers came in \$4,400 less than
9 expected. Lastly, fewer crew hours were required for the tap change, for a
10 variance of \$3,484.

11
12 **Hawthorne (Vine to Beatrice)**

13 The project was over budget by \$120,274 (81%) due to a number of reasons.
14 Vehicle charges of \$53,296 were omitted from the original estimate. There were
15 increased operations costs relating to switching resulting in an increase of
16 \$29,067 as compared with the original estimate. Contract labour costs of
17 \$26,130 relating to snow removal and thawing of frozen conduit did not form part
18 of the original budget. Finally, there was \$13,263 of additional needed material
19 that was not part of the initial estimate.

20
21 **Capital Site Restorations**

22 These costs relate to restoration required as a result of capital projects.
23 Historically, GSHI had capitalized these costs, however upon conversion to
24 IFRS, GSHI's interpretation of the standards were that the costs could no longer
25 be capitalized. In 2019, after discussions both internally and with its auditors,
26 GSHI once again capitalizes these costs. As result, a variance of \$133,846 is
27 shown because the budgeted value was zero. For 2019 they are isolated in one
28 project, however beginning in 2020, these costs will be capitalized in the projects
29 where the costs are incurred.

30 **Tedman Voltage Conversion**

31 This is a multi-year project. This project is under budget by \$688,865 (46%). The
32 majority of the variance is due to decreased costs as compared with the
33 budgeted expectation for the following years:

34
35 2017: \$346,242

36 2019: \$246,868

37

1 In 2017, the original budget intent was to spend \$521,532 to begin the Tedman
2 Voltage conversion. However, actual costs incurred were only \$175,290, for a
3 variance of \$346,242. Based on the type of make-ready work that operations
4 crews typically undertake as part of a voltage conversion project and because
5 there are typically not any seasonal restrictions, these jobs can be scheduled to
6 take place later in the year. Crews ran out of time toward the end of the year
7 and the balance of the remaining make-ready work was re-budgeted for 2018.

8
9 In 2019, the original budget intent was to spend \$758,543 to continue the
10 Tedman Voltage conversion. However, actual costs incurred were only
11 \$511,675, for a variance of \$246,868. During project construction, several costs
12 were not incurred that decreased the actual costs as compared with the
13 budgetary estimate. These included:

- 14
15 • GSHi determined that the original plan to replace a transformer
16 feeding the MCTV build should be re-done because it was a private
17 transformer. The job was not completed, and was originally
18 estimated at \$106,713;
- 19 • Tedman St was not re-built as planned because the possibility
20 existed to avoid having to run a second feeder along this line as
21 way originally planned, for a variance of \$24,931;
- 22 • Contractor labour costs associated with the installation of civil
23 infrastructure to create a loop between Terry Fox Sports Complex
24 and Burton Ave were \$32,949 less than estimated;
- 25 • Contractor labour costs associated with the installation of poles and
26 anchors along Severn St and Kelsey St were \$19,175 less than
27 estimated; and
- 28 • Several areas had their original plans modified from initial estimate.
29 Rather than changing all transformers that were not 'dual-voltage',
30 as had been the original design, many existing transformers (and
31 associated pole change that would have been necessary) were
32 avoided by placing one larger transformer to replace a group of
33 existing, smaller transformers for additional cost savings.

34 **Cressey MS3 Rebuild/Voltage Conversion**

35 This is a multi-year project. This project is under budget by \$378,234 (47%). The
36 majority of the variance in this project is due to less actual costs as compared
37 with the budgeted expectation for 2019. In 2019, the original budget intent was to
38 spend \$570,474 to continue the Cressey Voltage conversion. However, actual

1 costs incurred were only \$40,888. Based on the type of make-ready work that
2 operations crews typically undertake as part of a voltage conversion project and
3 because there are typically not any seasonal restrictions, these jobs can be
4 scheduled to take place later in the year. Crews ran out of time toward the end
5 of the year and the balance of the remaining make-ready work will be re-
6 budgeted going forward.

7 8 **Falconbridge MS – Reclosers, Grounding, Fencing**

9 During project construction, several costs were incurred that resulted in the
10 project being over budget by \$70,752 (14%). These included:

- 11 • Power transformer costs came in higher than budgeted, for a
12 variance of \$52,986;
- 13 • Due to construction limitations for the ground grid, more contract
14 labour was required than estimated for a variance of \$7,588;
- 15 • Due to poor soil conditions, Erico grounding and conductivity
16 enhancer was used for a variance of \$4,890; and
- 17 • Fence sections needed to be removed and replaced for equipment
18 installation for a variance of \$3,500.

19 20 **Southlane Road**

21 Project costs are \$66,202 (22%) over budget. The scope of this project was to
22 extend the three phase line along Southlane and McFarlane Lk Roads to Long Lk
23 Rd. The majority of the over budget can be attributed to higher actual operations
24 labour costs as compared with the original estimate of \$39,417.

25 26 **Cambrian Heights Dr – UG Extension to College Boreal**

27 Project costs were \$57,597 (26%) under budget. The majority of the under
28 budget of this project was because the scope of the job was altered during actual
29 construction as compared with the original design. GSHi decided against
30 changing a PME-10 12kV switchgear as had been originally planned, for a
31 variance of \$26,406. Further, actual costs to frame and guy the 3/0AACSR
32 neutral required for the project were \$10,793 lower than estimated.

33 34 **44kV Motorized Switches/VBM**

35 Project costs were \$138,370 (14%) under budget. The overall intent of this
36 program is to budget for the purchase and installation of motorized switches.
37 These switches will replace existing switches where automation is required. The
38 overall underspend in this program is mostly due to the decision in 2014 to not

1 install as many of these switches as was initially planned. Due to operational
2 challenges with some of these switches, ongoing conversation with the vendor to
3 get the original switches working caused fewer switches to be addressed by this
4 investment as originally planned, resulting in an estimate to actual variance of
5 \$91,230 for that year.

7 **Lasalle MS7 Relay Upgrades**

8 During project construction, several costs were incurred that resulted in the
9 project being over budget by \$59,334 (62%). These included:

- 11 • SCADA costs came in higher than anticipated due to PDS system
12 for a variance of \$17,517;
- 13 • Scope change; added FT switches on all I/O for a variance of
14 \$10,200;
- 15 • Contractor labour for CT testing and re-wiring for a variance of
16 \$7,129;
- 17 • Relay price increased as well as the exchange rate for a variance
18 of \$3,537; and
- 19 • Re-work for doors at Lasalle MS7, contract labour for a variance of
20 \$2,000.

21 **11F7 – Falconbridge Rd to Moonlight Ave; New Ckt**

22 The project was over budget by \$26,930 (24%) primarily due to actual contract
23 labour costs of \$16,000 relating to traffic control that were greater than
24 estimated.

26 **Melvin to Kathleen MS; New 44kV Ckt/Rebuild**

27 The project was over budget by \$185,567 (49%) due to actual contract labour
28 costs of \$79,430 relating to installation of poles and traffic control that were
29 greater than the original estimate. Additionally, a decision was made to alter the
30 project scope during construction and involved the replacement of three 65ft
31 poles including all 44kV and 12kV framing. As a result, material-related costs
32 were \$50,430 higher than budget. Finally, actual construction hours of 2,288
33 were 50% more than the estimate of 1,522 leading to increased costs in
34 operations labour and vehicles.

36 **2017 44kV to Coniston**

37 Project costs were \$243,353 (19%) higher than budget. In 2017, GSHi completed
38 a historically important 44kV feeder extension project to provide a backup feed to

1 the Town of Coniston, with costs occurring in both 2015 and 2017 with a break in
2 2016 to spread costs over a longer term. Estimates and actuals for each year
3 are shown below.

4
5 1st Phase - Estimated at \$356,928; Actual Costs of \$450,868

6 2nd Phase – Estimated at \$902,300; Actual Costs of \$1,051,713

7
8 The majority of the higher than planned expenditures in the first phase of the
9 project were due to actual contractor labour costs relating to pole/anchor
10 installations which were \$58,419 greater than estimated. Further, costs relating
11 to operations crew framing and installing primary conductors were \$32,793 more
12 than were estimated.

13 During project construction of the second phase, several costs were incurred that
14 increased the actual costs as compared with the budgetary estimate. These
15 included:

- 16 • Engineering design/labour came in higher than estimated, for a
17 variance of \$14,943;
- 18 • Materials costs were \$22,611 higher than estimated; and
- 19 • Contractor labour costs associated with 44kV pole installation,
20 framing and conductors were \$36,340 more than estimated.

21 **Moonlight @ Bancroft 44kV U/G**

22 During project construction, several unanticipated budgeted costs were incurred,
23 resulting in the project being over budget by \$80,737 (94%). These included:

- 24 • \$13,478 in contract labour to extend ductwork and concrete-encase due to
25 bedrock at Hydro One's request;
- 26 • \$7,123 in additional material to extend duct and cable as a result of Hydro
27 One;
- 28 • Approx. \$6,959 in labour and vehicles due to difficulty pulling cable;
- 29 • \$6,879 in overtime due to outage which was not part of the original
30 estimate;
- 31 • \$3,891 in contract labour to install culvert and build road as per Hydro One
32 requirement;
- 33 • \$1,344 in contract labour due to difficulty installing rock mount; and
34 • \$1,013 in additional engineering labour beyond the original estimate.

35 **Dash MS19 T1/T2 Relay Upgrades; Purchase Equipment**

36 During project construction, several costs were incurred that resulted in the
37 project being over budget by \$124,590 (42%). These included:

- 1 • Added DC plant replacement to project scope. The existing bank
2 did not have the capacity to support the upgrade(s), causing a
3 variance of \$55,295.
- 4 • SCADA-related costs came in higher due to new PDS system for a
5 variance of \$32,250; and
- 6 • Contract labour for confined space rescue services was required for
7 \$8,500;
- 8 • Scope change; added FT switches on all I/O for a variance of
9 \$7,559;
- 10 • Contract labour needed to troubleshoot the transfer trip protection
11 to a generator site at a cost of \$7,129; and
- 12 • Relay price increase, combined with exchange rate uncertainty for
13 a variance of \$6,746.

14

15 **Continue 44kV build down Government Rd to Hwy 17 – Coniston 31F2**

16 The project was over budget by \$184,666 (41%) primarily due to four extra poles
17 that were needed due to the inability of GSHi to acquire necessary anchoring
18 based on the original design. This alteration of the original project design
19 necessarily required undergrounding of a section of the project for both the 44kV
20 and 12kV circuit, resulting in increased costs of \$158,771.

Attachment 1 (of 2):

2-SEC-16 Attachment 1: Program Variances

Programs	2013				2014				2015				2016			
	Budget	Actual	Variance %	Variance Amt	Budget	Actual	Variance %	Variance Amt	Budget	Actual	Variance %	Variance Amt	Budget	Actual	Variance %	Variance Amt
System Access																
Meter Installations	132,791	121,800	-8%	(10,991)	196,285	117,775	-40%	(78,510)	213,480	152,796	-28%	(60,684)	107,974	176,067	63%	68,093
Overhead Services	62,401	112,732	81%	50,331	36,389	138,646	281%	102,257	67,338	129,537	92%	62,199	66,546	170,919	157%	104,373
System Betterment	142,646	172,351	21%	29,705	143,685	199,094	39%	55,409	158,003	252,251	60%	94,248	140,256	177,299	26%	37,043
Underground Services	61,569	90,868	48%	29,299	37,889	119,099	214%	81,210	67,420	106,475	58%	39,055	66,218	146,179	121%	79,961
City Roadwork	339,005	484,101	43%	145,096	285,868	360,002	26%	74,134	387,987	81,302	-79%	(306,685)	323,155	153,024	-53%	(170,131)
System Renewal																
Failed Transformers	130,737	207,884	59%	77,147	170,000	173,492	2%	3,492	120,000	552,325	360%	432,325	170,000	438,522	158%	268,522
System Betterment	142,646	172,351	21%	29,705	143,185	199,094	39%	55,909	158,003	252,251	60%	94,248	140,256	177,299	26%	37,043
Major Substation Repairs	260,334	332,236	28%	71,902	451,233	639,556	42%	188,323	332,142	302,638	-9%	-29,504	211,055	81,713	-61%	-129,342
Emergency Plant Repairs	126,225	23,965	-81%	-102,260	136,696	279,054	104%	142,358	135,783	34,677	-74%	-101,106	134,304	234,114	74%	99,810
System Service																
System Betterment	142,646	172,351	21%	29,705	143,685	199,094	39%	55,409	158,003	252,251	60%	94,248	140,256	177,299	26%	37,043
General Plant																
Vehicles	552,761	533,800	-3%	(18,961)	225,615	225,667	0%	52	1,013,908	756,834	-25%	(257,073)	198,412	202,408	2%	3,996
Building	1,036,536	176,906	-83%	(859,630)	525,000	1,364,323	160%	839,323	500,000	1,312,438	162%	812,438	1,037,762	1,342,565	29%	304,803
Tools and Equipment	160,000	77,672	-51%	(82,328)	167,344	85,032	-49%	(82,312)	133,785	69,666	-48%	(64,119)	176,279	116,135	-34%	(60,144)

Programs	2017				2018				2019 Bridge Year				GSHi Capital Programs 2013-2019			
	Budget	Actual	Variance %	Variance Amt	Budget	Actual	Variance %	Variance Amt	Budget	Actual	Variance %	Variance Amt	Total Budget	Total Spend	Variance Amt	Variance %
System Access																
Meter Installations	95,160	63,282	-33%	(31,878)	115,240	120,024	4%	4,784	124,862	147,711	18%	22,849	985,792	899,454	(86,338)	-8.8%
Overhead Services	76,702	133,409	74%	56,707	105,000	140,168	33%	35,168	150,500	181,239	20%	30,739	564,876	1,006,650	441,774	78.2%
System Betterment	141,084	326,146	131%	185,062	178,852	158,156	-12%	(20,696)	191,518	207,517	8%	15,999	1,096,044	1,492,814	396,770	36.2%
Underground Services	73,847	117,965	60%	44,118	105,000	96,048	-9%	(8,952)	122,400	115,584	-6%	(6,816)	534,343	792,219	257,876	48.3%
City Roadwork	320,480	159,247	-50%	(161,233)	350,000	172,058	-51%	(177,942)	275,000	311,204	13%	36,204	2,281,495	1,720,939	(560,556)	-24.6%
System Renewal																
Failed Transformers	170,000	230,949	36%	60,949	170,000	533,204	214%	363,204	350,000	180,301	-48%	-169,699	1,280,737	2,316,676	1,035,939	80.9%
System Betterment	141,084	326,146	131%	185,062	178,852	158,156	-12%	-20,696	191,518	207,517	8%	15,999	1,095,544	1,492,814	397,269	36.3%
Major Substation Repairs	211,055	33,197	-84%	-177,858	200,000	112,098	-44%	-87,902	300,000	131,077	-56%	-168,923	1,965,819	1,632,515	-333,304	-17.0%
Emergency Plant Repairs	135,622	509,595	276%	373,973	300,000	577,726	93%	277,726	326,547	46,633	-86%	-279,914	1,295,177	1,705,765	410,588	31.7%
System Service																
System Betterment	141,084	326,146	131%	185,062	178,852	158,156	-12%	(20,696)	191,518	207,517	8%	15,999	1,096,044	1,492,814	396,770	36.2%
General Plant																
Vehicles	685,176	743,656	9%	58,480	200,000	212,220	6%	12,220	144,362	144,362	0%	-	3,020,234	2,818,948	(201,286)	-6.7%
Building	500,000	101,852	-80%	(398,148)	314,000	21,465	-93%	(292,535)	322,678	242,329	-25%	(80,349)	4,235,976	4,561,877	325,901	7.7%
Tools and Equipment	120,000	107,409	-10%	(12,591)	90,000	101,718	13%	11,718	85,000	81,475	-4%	(3,525)	932,408	639,107	(293,301)	-31.5%

Attachment 2 (of 2):

2-SEC-16 Attachment 1: Project Variances

Projects	2013		2014	2015	2016	2017	2018	2019	GSHI Material Projects 2013-2019		
	Project Budget	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Total Project Spend	Variance Amt	Variance %
System Renewal											
Vanier Lane Road	511,084	458,280							458,280	(52,804)	-10.3%
Algonquin Rebuild	71,295	150,050							150,050	78,755	110.5%
Sunnyside	373,753	402,031							402,031	28,278	7.6%
Pole Replacements	254,383	136,291							136,291	(118,092)	-46.4%
Pine St- 4kV Rebuild	153,783	173,085							173,085	19,302	12.6%
Beatty	272,761	354,547							354,547	81,786	30.0%
Evans Road Rebuild	238,735	167,471							167,471	(71,264)	-29.9%
Coppercliff Gardens Rebuild	0	135,832							135,832	135,832	100.0%
Lo-Ellen Park Rebuild	331,123		116,006						116,006	(215,117)	-65.0%
Vanier Lane Rebuild - Phase 2	300,000		296,055						296,055	(3,945)	-1.3%
Woodbine / Agincourt	460,000		546,967						546,967	86,967	18.9%
Harju/ Pennala	148,183		151,066						151,066	2,883	1.9%
Raft LK	260,000		140,241						140,241	(119,759)	-46.1%
Chapman/Stafford Rebuild	59,000			133,235					133,235	74,235	125.8%
Beverly Drive Rebuild	118,811			172,245					172,245	53,434	45.0%
Griffith St.	79,336			117,526					117,526	38,190	48.1%
Crescent Park/ Gordon Ac Rebuild	277,423			178,425					178,425	(98,998)	-35.7%
Brebeuf Front Lot	276,031			368,773					368,773	92,742	33.6%
Mcdonell/Rix Falconbridge	148,503			155,288					155,288	6,785	4.6%
Fourth Ave Minnow Lake	155,330				154,003				154,003	(1,328)	-0.9%
Bloor St	284,098				221,473				221,473	(62,625)	-22.0%
Ester (Long Lake Rd to Treeview)	139,704				130,208				130,208	(9,496)	-6.8%
Lavoie St.	237,141				245,047				245,047	7,906	3.3%
Mountview Cres	156,158				139,340				139,340	(16,818)	-10.8%
Struthers St.	135,691				166,651				166,651	30,960	22.8%
Hay St. (Cache Bay)	109,866				116,572				116,572	6,706	6.1%
Rear Line Marymount to St. Anne's Rd	122,812				199,934				199,934	77,122	62.8%
Mildred St.	141,304				176,166				176,166	34,862	24.7%
Madeleine St	100,150				118,304				118,304	18,154	18.1%
Martin Ave	100,149				115,207				115,207	15,058	15.0%
Somers St.	132,455				187,907				187,907	55,452	41.9%
Coniston Edward Station	375,000					293,715			293,715	(81,285)	-21.7%
Hudson St. 11F5	107,009					122,682			122,682	15,673	14.6%
Lansing Ave.	268,019					354,270			354,270	86,251	32.2%
Croatia Road 20F5	152,285					174,998			174,998	22,713	14.9%
Jarvi/Lammi's/Hannah Lake Rd 20F3	387,649					366,949			366,949	(20,700)	-5.3%
Lasalle Park Manor Underground	321,008					395,943			395,943	74,935	23.3%
Holland Road - 2017	195,696					204,197			204,197	8,501	4.3%
Lincoln Road Rebuild	124,515					134,537			134,537	10,022	8.0%
9M4 Transfer Conductors (Martindale Pioneer Rd.)	426,236						470,104		470,104	43,868	10.3%
Kathleen Voltage Conversion	873,494				76,436	72,934	515,434		664,804	(208,690)	-23.9%
Clearwater Lake Road	157,071						295,360		295,360	138,289	88.0%
Fourth Avenue Coniston 31F1	156,585						234,909		234,909	78,324	50.0%
Kathleen Station MS2	3,853,749						3,324,676		3,324,676	(529,073)	-13.7%
West Nipissing4-12kvconver	1,691,026	178,745	476,226	352,628	162,576	140,045	224,544	115,852	1,650,616	(40,410)	-2.4%
Ferguson Avenue	309,524							333,295	333,295	23,771	7.7%
Capreol Rebuild	1,743,821						20,199	1,542,314	1,562,513	(181,308)	-10.4%
Regent Voltage Conversion	382,732							435,561	435,561	52,829	13.8%
Notre Dame Composite Pole Replacements	264,379							346,118	346,118	81,739	30.9%
MS30/MS31 Grounding Improvements/Switching	178,158							157,570	157,570	(20,588)	-11.6%
Hawthorne (Vine to Beatrice)	147,964							268,238	268,238	120,274	81.3%
Capital Site Restoration	0							133,846	133,846	133,846	100.0%
Tedman Voltage Conversion	1,481,952					175,290	106,122	511,675	793,087	(688,865)	-46.5%
Cressey MS3 Rebuild/Voltage Conversion	805,340		248,153		138,066			40,888	427,106	(378,234)	-47.0%
Replace/remove all existing 4/0 acsr 44kv	159,967			147,296					147,296	(12,671)	-7.9%
Falconbridge MS - Reclosers, Grounding, Fencing	491,755				562,507				562,507	70,752	14.4%
Copper Cliff Rear Lot H Structures 25F4/25F1	986,362						925,622	128,294	1,053,916	67,554	6.8%
System Service											
Southlane Road	271,800	332,002							332,002	60,202	22.1%
Cambrian Heights Dr-UG Extension to College Boreal	223,691		166,094						166,094	(57,597)	-25.7%
44KV Motorized Switches/VBM	977,117	508,535	330,212						838,747	(138,370)	-14.2%
West Nipissing (MS37)	180,005			188,460					188,460	8,455	4.7%
Lasalle MS7 Relay Upgrades	96,414					155,748			155,748	59,334	61.5%
11F7 - Falconbridge Rd to Moonlight Ave; New Ckt	111,151					138,081			138,081	26,930	24.2%
Lorne @ Martindale Ave; Complete 12kV and 44kV Feeder Ties	259,883			104,291		130,189			234,480	(25,403)	-9.8%
Melvin to Kathleen MS; New 44kV Ckt/Rebuild	377,914					563,481			563,481	185,567	49.1%
2017 44KV To Coniston	1,259,228			450,868		1,051,713			1,502,581	243,353	19.3%
Sunnyside Rebuild	532,030						526,833		526,833	(5,197)	-1.0%
Moonlight @ Bancroft 44kV U/G	85,941							166,678	166,678	80,737	93.9%
Dash MS19 T1/T2 Relay Upgrades;Purchase Equipment	295,000							419,590	419,590	124,590	42.2%
Continue 44KV build down Government Rd to Hwy 17 - Coniston 31F2	451,181							635,847	635,847	184,666	40.9%
Science North	568,750							553,972	553,972	(14,778)	-2.6%
General Plant											
Control Room Electronic Mapping	364,328	367,399							367,399	3,071	0.8%