

Overview of Cooperative Hydro Embrun's 2018 Cost of Service Application – Settlement Proposal

JANUARY 12, 2018

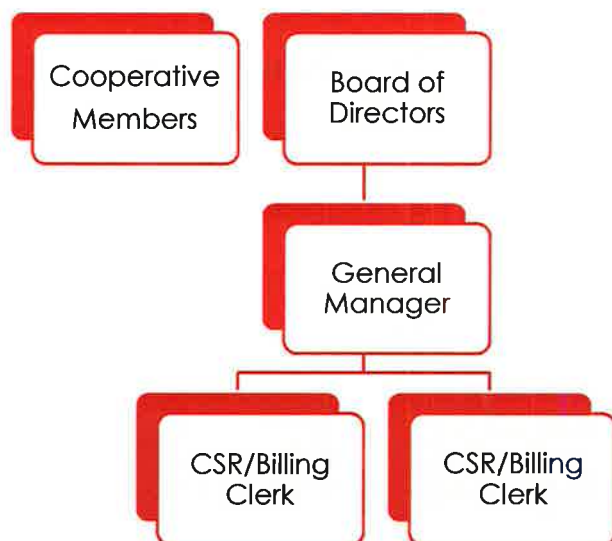
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Introduction

- ▶ Cooperative Hydro Embrun Inc. ("CHEI") filed a Cost of Service application with the Ontario Energy Board (the "OEB") on May 1, 2017. The application was returned as incomplete and accepted by the OEB on June 22, 2017.
- ▶ Interrogatory responses were filed on November 3, 2017
- ▶ On November 13, 2017 the OEB approved the list submitted by OEB staff as the final issues list (the "Issues List").
- ▶ The settlement conference was convened on November 27, 2017.
- ▶ CHEI, VECC and OEB staff participated in the settlement conference (collectively referred to as the "Parties").
- ▶ Full Settlement was reached.

Governance and Corporate Structure



- Utility is owned by its members.
- One time \$10 cost per member.
- Benefits are distributed in form of “patronage refund”.
- \$400,000 given back since 2001.
- Approximately 1,455 members.

| Year | Dividend |
|------|-----------------|
| 2001 | \$8,025 |
| 2002 | \$53,250 |
| 2003 | \$31,350 |
| 2004 | \$16,820 |
| 2005 | \$12,775 |
| 2006 | \$0.00 |
| 2007 | \$34,155 |
| 2008 | \$22,370 |
| 2009 | \$24,610 |
| 2010 | \$19,705 |
| 2011 | \$24,018 |
| 2012 | \$55,915 |
| 2013 | \$42,870 |
| 2014 | \$22,000 |
| 2015 | \$20,000 |
| 2016 | \$20,000 |

Settlement on Rate Base

| Particulars | Application May 1 2017 | IRR Nov 3 2017 | Variance over Original Filing | Settlement Proposal Dec 22 2017 | Variance over IRs | 2014BA |
|-----------------------------------|---------------------------|--------------------|--|---------------------------------------|----------------------|------------------|
| Gross Fixed Assets (avg) | \$6,216,043 | \$6,216,043 | \$0 | \$6,244,627 | \$28,584 | \$3,733,350 |
| Accumulated Depreciation (avg) | -\$1,881,045 | -\$1,881,045 | \$0 | -\$1,879,790 | \$1,255 | -\$1,360,666 |
| Net Fixed Assets (avg) | \$4,334,999 | \$4,334,999 | \$0 | \$4,364,837 | \$29,838 | \$2,372,683 |
| Allowance for Working Capital | \$369,826 | \$367,639 | -\$2,187 | \$315,570 | -\$52,069 | 535,243 |
| Total Rate Base | \$4,704,825 | \$4,702,638 | -\$2,187 | \$4,680,407 | -\$22,231 | 2,907,927 |

- ▶ The Parties accepted the rate base calculations, after making the adjustment to, in-service additions for 2018, the working capital a (OM&A, Cost of Power) as reasonable.

Settlement on Capital Additions

| | Application May 1 2017 | IRR Nov 3 2017 | Variance over Original Filing | Settlement Proposal Dec 15 2017 | Variance over IRs |
|--|---------------------------|------------------|----------------------------------|------------------------------------|-------------------|
| Capital Additions | | | | | |
| System Access | \$34,500 | \$34,500 | \$0.00 | \$83,200 | \$48,700 |
| System Renewal | \$110,005 | \$110,005 | \$0.00 | \$115,780 | \$5,775 |
| System Service | \$0 | \$0 | \$0.00 | \$0 | \$0 |
| General Plant | \$5,700 | \$5,700 | \$0.00 | \$5,700 | \$0 |
| Total Expenditures | \$150,205 | \$150,205 | \$0.00 | \$204,680 | \$54,475 |
| 2018 Capital Contribution included in System Access | -\$5,200 | -\$5,200 | \$0.00 | -\$132,000 | -\$126,800 |

- ▶ Full Settlement on the following
 - ▶ Updated in service addition forecast for 2017
 - ▶ Rescheduling of two discrete projects in 2018 as opposed to their originally forecast in service dates of 2017
 - ▶ Addition of the new 44kV substation to provide redundancy for its existing distribution system and to meet the forecasted load growth.

44KV Substation - Need and Timelines

Priorities and strategies for budget development include the following:

- ▶ The construction of a new transformer, which will come into service at the end of 2017, is ensuring that an adequate supply of electricity will continue to power the city's growth for years to come.
- ▶ Replacement of poles and transformers as they show sign of deterioration
- ▶ Installing distributions assets to power new subdivisions.
- ▶ **Nov 2016:** Project Specs and Design.
- ▶ **Jan 2017:** RFP issued.
- ▶ **Jan 2017:** Contract awarded to K-Line.
- ▶ **Feb-June 2017:** Stantec approves plans.
- ▶ **July 2017:** Civil works begins.
- ▶ **Aug 31 2017:** Substation is delivered.
- ▶ **Dec 12 2017:** In -Service.

Settlement on Operational Costs

| | Application May 1 2017 | IRR Nov 3 2017 | Variance over Original Filing | Settlement Proposal Dec 22 2017 | Variance over IRs | 2014 BA |
|--------------------------------|---------------------------|------------------|-------------------------------------|---------------------------------------|----------------------|------------------|
| Operations | \$37,769 | \$37,769 | \$0 | \$36,569 | -\$1,200 | \$20,900 |
| Maintenance | \$56,215 | \$56,215 | \$0 | \$53,115 | -\$3,100 | \$40,300 |
| Billing and Collecting | \$209,970 | \$209,970 | \$0 | \$199,982 | -\$9,988 | \$170,174 |
| Community Relations | \$7,875 | \$7,875 | \$0 | \$5,150 | -\$2,725 | \$4,000 |
| Administration & General +LEAP | \$410,142 | \$410,142 | \$0 | \$387,155 | -\$22,987 | \$320,905 |
| Total | \$721,971 | \$721,971 | \$0 | \$681,971 | -\$40,000 | \$556,279 |

- ▶ Subject to an envelope reduction of \$40,000 to the proposed 2018 OM&A budget, the parties agree that the proposed OMA budget is appropriate.

Summary of Capital & OM&A Spending

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|-------------------------|-----------|-----------|-----------|-------------|-----------|
| Operational Expenditure | \$569,081 | \$613,072 | \$601,025 | \$651,616 | \$681,971 |
| Capital Expenditures | \$319,706 | \$213,115 | \$458,645 | \$1,708,342 | \$204,680 |

Capex & Opex



Settlement on Customer and Load Forecast

| Particulars | Application May 1 2017 | IRR Nov 3 2017 | Variance over Original Filing | Settlement Proposal Dec 22 2017 | Variance over IRs |
|---------------------------------|---------------------------|-------------------|--|---------------------------------------|----------------------|
| Residential | 2,100 | 2,100 | 0 | 2,100 | \$0 |
| General Service < 50 kW | 172 | 172 | 0 | 172 | \$0 |
| General Service > 50 to 4999 kW | 9 | 9 | 0 | 9 | \$0 |
| Unmetered Scattered Load | 17 | 17 | 0 | 17 | \$0 |
| Street Lighting | 530 | 530 | 0 | 530 | \$0 |
| Total Energy (kWh) | 29,963,504 | 29,220,175 | -743,329 | 29,891,982 | 671,807 |
| Total Demand (kW) | 13,339 | 12,739 | -600 | 13,376 | 637 |

The Parties agree to:

- ▶ the removal of the CDM weighting factor related to 2015 CDM.
- ▶ For the 2015-2020 CDM Program Table, CHE used the 2016 verified results persisting in 2018 along with annual savings from the CDM plan for 2017 and 2018 assuming a 100% persistence for 2018.
- ▶ A revised allocation of the manual CDM adjustment based on the 2016 verified results and the CDM plan savings for 2017 and 2018.

Settlement on Cost of Capital

| Particulars | Application May 1 2017 | Application May 1 2017 | IR Nov 3 2017 | IR Nov 3 2017 | Variance over Original Filing | Settlement Proposal Dec 22 2017 | Settlement Proposal Dec 22 2017 | Variance over IRs |
|---------------------|---------------------------|---------------------------|------------------|------------------|----------------------------------|---------------------------------------|---------------------------------------|----------------------|
| Debt | | | | | | | | |
| Long-term Debt | 2.90% | \$76,406 | 2.90% | \$76,371 | -\$36 | 2.90% | \$76,010 | -\$361 |
| Short-term Debt | 1.76% | \$3,312 | 1.76% | \$3,311 | -\$2 | 2.29% | \$4,287 | \$977 |
| Total Debt | 2.82% | \$79,719 | 2.72% | \$79,681 | -\$37 | 2.86% | \$80,297 | \$616 |
| Equity | | | | | | | | |
| Common Equity | 8.78% | \$165,233 | 8.78% | \$165,157 | -\$77 | 9.00% | \$168,495 | \$3,338 |
| Total Equity | 8.78% | \$165,233 | 8.78% | \$165,157 | -\$77 | 9.00% | \$168,495 | \$3,338 |
| Total | 5.71% | \$244,952 | 5.71% | \$244,838 | -\$114 | 5.32% | \$248,792 | \$3,954 |

- ▶ The Parties agree to CHEI's proposed cost of capital parameters as updated to reflect the OEB's deemed cost of capital parameters for the 2018 test year. The long-term debt reflect the actual rate for the debt instrument related to the substation.

Settlement on Revenue Requirement

| | Application May 1 2017 | IRR Nov 3 2017 | Variance over Original Filing | Settlement Proposal Dec 22 2017 | Variance over IRs | 2014BA |
|---|---------------------------|-------------------|----------------------------------|---------------------------------------|----------------------|------------|
| OM&A Expenses | \$721,971 | \$721,971 | \$0 | \$681,971 | -\$40,000 | \$556,279 |
| Amortization/Depreciation | \$165,121 | \$165,121 | \$0 | \$162,155 | -\$2,966 | \$132,429 |
| Income Taxes (Grossed up) | \$4,631 | \$4,623 | -\$8 | \$4,076 | -\$546 | \$8,922 |
| Deemed Interest Expense | \$79,719 | \$79,681 | -\$37 | \$80,297 | \$616 | \$81,922 |
| Return on Deemed Equity | \$165,233 | \$165,157 | -\$77 | \$168,495 | \$3,338 | \$108,873 |
| Service Revenue Requirement (before Revenues) | \$1,136,675 | \$1,136,553 | -\$122 | \$1,096,994 | -\$39,559 | \$888,425 |
| Revenue Offsets | \$29,789 | \$29,658 | -\$131 | \$29,658 | \$0 | \$30,821 |
| Base Revenue Requirement | \$1,106,886 | \$1,106,895 | \$9 | \$1,067,336 | -\$39,559 | -\$858,144 |
| Gross Revenue Deficiency (Suff) | \$198,507 | \$210,224 | \$11,717 | \$191,647 | -\$18,577 | -\$4,996 |

OM&A: Envelope cut of 40K

- ▶ Operation: -\$1k
- ▶ Maintenance: -\$3k
- ▶ Billing and Collect: -\$10k
- ▶ Admin: -\$26k

Adjustment to depreciation expense as a result of using in-service addition forecast for 2017 and rescheduling of two discrete projects to 2018.

Adjustment to return as a result of new Cost of Capital parameters

Overall reduction of Revenue Deficiency of 18.5K

Settlement on Rate Design

| Particulars | | Application May 1 | Application May 1 | IRR Nov 3 2017 | IRR Nov 3 2017 | Settlement | Settlement |
|---------------------------------|-----|-------------------|-------------------|----------------|----------------|------------|---------------|
| | | 2017 | 2017 | | | Proposal | Dec |
| | | | | | | 22 2017 | 22 2017 |
| Customer Class Name | per | Fixed Rate | Variable Rate | Fixed Rate | Variable Rate | Fixed Rate | Variable Rate |
| Residential | kWh | \$31.99 | \$0.0046 | \$29.68 | \$0.0060 | \$27.84 | \$0.0064 |
| General Service < 50 kW | kWh | \$21.68 | \$0.0112 | \$21.68 | \$0.0187 | \$21.11 | \$0.0176 |
| General Service > 50 to 4999 kW | kW | \$199.45 | \$3.9545 | \$199.45 | \$4.0489 | \$199.45 | \$4.2387 |
| Unmetered Scattered Load | kW | \$21.16 | \$0.0174 | \$21.16 | \$0.0182 | \$21.16 | \$0.0145 |
| Street Lighting | kW | \$1.99 | \$17.4164 | \$1.99 | \$20.8178 | \$2.00 | \$18.1857 |

- ▶ The Parties agree to that the Revenue-to-Cost ratios and Fixed to Variable Split have been correctly determined in accordance with OEB policies and practices. CHEI proposes to move the revenue to cost ratios for the General Service > 50 to 4999 kW class to the ceiling of 1.20 in its 2019 rate application.
- ▶ The parties agree that increasing the transition to the fixed rate design over a six-year transition period is necessary in order to mitigate the impact on low volume consumers. Extending the transition by two additional years for a total of six years brings the bill impact to 10.4% instead of 11%.

Settlement on Deferral and Variance Balances

Group 1 & 2 Balances

| | |
|---|------------|
| Total of Group 1 Accounts (1550, 1551, 1584, 1586 and 1595) | \$288,919 |
| Total of Account 1580 and 1588 (not allocated to WMPs) | -\$111,035 |
| Balance of Account 1589 Allocated to Non-WMPs | -\$13,456 |

LRAMVA Balances

| Description | Residential | General Service < 50 kW | General Service > 50 to 4999 kW | Unmetered Scattered Load | Street Lighting | |
|----------------------|-------------|-------------------------|---------------------------------|--------------------------|-----------------|----------|
| | kWh | kWh | kW | kW | kWh | |
| Carrying Charges | \$31.01 | \$116.06 | (\$12.71) | (\$0.14) | (\$2.32) | \$131.91 |
| Total LRAMVA Balance | \$4,476 | \$13,736 | -\$1,220 | -\$13 | -\$222 | \$16,756 |
| Rate Rider | \$0.0001 | \$0.0010 | -\$0.0318 | -\$0.0001 | -\$0.1225 | |

- ▶ The Parties accept the deferral and variance accounts are appropriate.
- ▶ The Parties accept CHEI's proposal to dispose of all deferral and variances balances including LRAMVA balances, over a period of three years in order to mitigate the impact rate impacts. The parties agree that a longer disposal period is necessary in order to mitigate the impacts on low volume consumers' bill, which was over 11%. The resulting bill impact for the low volume consumers is 10.4%.

Settlement on Other issues

- ▶ The following other issues are agreed to be appropriate and have been correctly determined in accordance with OEB accounting policies and practices.
 - ▶ PILs in the amount of \$4,076
 - ▶ Other Revenues in the amount of \$29,658
 - ▶ Loss Factor of 1.0749 or 7.49%
 - ▶ LRAMVA Baseline of 1,405,902 kWh
 - ▶ RTSR and Low Voltage Rates

Typical Bill Impacts

| RATE CLASSES / CATEGORIES (e.g.: Residential TOU, Residential Retailer) | Units | Sub-Total | | | | | | | | Total | |
|--|-------|-----------|----------|--------|----------|-------|----------|-----------|----------|-------|--|
| | | A | | B | | C | | A + B + C | | | |
| | | \$ | % | \$ | % | \$ | % | \$ | % | | |
| Residential service classification - RPP | kWh | 750 | \$5.66 | 20.7% | \$8.88 | 26.5% | \$8.97 | 20.4% | \$8.35 | 7.3% | |
| GS less than 50 kw service classification - RPP | kWh | 2000 | \$10.81 | 22.8% | \$19.03 | 30.5% | \$18.81 | 21.5% | \$16.90 | 5.8% | |
| GS 50 to 4,999 kw service classification - non-RPP (retailer) | kW | 33000 | \$45.98 | 9.3% | -\$3.50 | -0.6% | -\$7.01 | -0.8% | -\$23.15 | -0.4% | |
| Unmetered scattered load service classification - non-RPP (retailer) | kWh | 400 | \$3.64 | 165.5% | \$5.58 | 96.9% | \$5.53 | 51.3% | \$5.64 | 8.4% | |
| Street lighting service classification - non-RPP (other) | kW | 30000 | \$495.66 | 35.7% | \$508.55 | 36.0% | \$506.97 | 32.0% | \$559.03 | 9.0% | |
| Residential service classification - RPP | kWh | 310 | \$5.96 | 24.7% | \$6.51 | 24.0% | \$6.54 | 20.8% | \$6.43 | 10.4% | |
| Residential service classification - non-RPP (retailer) | kWh | 750 | \$5.66 | 20.7% | \$7.68 | 22.0% | \$7.76 | 17.1% | \$7.08 | 5.1% | |
| Residential service classification - non-RPP (retailer) | kWh | 310 | \$5.96 | 24.7% | \$6.33 | 22.9% | \$6.37 | 19.9% | \$6.25 | 8.8% | |

Performance & Scorecards

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|--------------|---------------|---------------|---------------|----------------|
| Actual Total Cost | 1,052,237 | 1,097,457 | 1,068,722 | 1,094,591 | 1,068,610 |
| Predicted Total Cost (using OEB metrics) | 1,415,586 | 1,530,324 | 1,629,366 | 1,753,043 | 1,797,375 |
| Difference | (363,350) | (432,867) | (560,644) | (658,452) | (728,765) |
| Percentage Difference (Cost Performance) | -29.7 | -33.2% | -42.2% | -47.1% | -52.00% |
| Stretch Factor Cohort - Annual Result | 2 | 1 | 1 | 1 | 1 |

