



August 24, 2021

Sent via email/eFile

**HEMLOCK SAFETY AND RELIABILITY
INVESTIGATION EXHIBIT A-4**

Ms. Angela Roy
Hemlock Utility Services Ltd.
Suite 210 – 8399 200th Street
Langley, BC V2Y 3C2
aroy@berezan.ca; rberezan@berezan.ca

Re: Hemlock Valley Electrical Services Limited – Investigation into the Safety and Reliability of Hemlock Utility Services – Project No. 1599225 – BCUC Information Request No. 1

Dear Ms. Roy:

Further to the above-noted matter, enclosed please find British Columbia Utilities Commission Information Request No. 1. Pursuant to the regulatory timetable established by Order G-239-21, please file your responses on or before **Thursday, September 16, 2021**.

Sincerely,

Original signed by:

Patrick Wruck
Commission Secretary

/cmv
Enclosure



Hemlock Utility Services Ltd.
Investigation into the Safety and Reliability of Hemlock Utility Services

INFORMATION REQUEST NO. 1 TO HEMLOCK UTILITY SERVICES LTD.

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A. SAFETY AND RELIABILITY

1.0 Reference: **SAFETY AND RELIABILITY**
 Exhibit B-1, Question 1, p. 1
 Day-to-Day Utility Challenges

In its response to BCUC Scoping questions, on page 1, Hemlock Utility Services (Hemlock) provides the following:

Aging infrastructure:

Upgrading system is an ongoing project, prioritizing upgrades based on immediate needs vs. cost of upgrades and availability of parts. Delays in upgrades have occurred due to unplanned breakdown of existing infrastructure. External factors affecting unplanned outages and impacting daily operations include weather, extreme hot or cold temperatures, new builds, upgrades to existing properties.

- 1.1 Please provide the current age and expected service life of the major components that make up Hemlock's distribution system.
- 1.2 Please provide the medium and long-term upgrade plans for Hemlock's distribution system.
- 1.3 Please explain any measures Hemlock is taking to harden its system against extreme weather events and extreme temperature fluctuations.
- 1.4 Please explain how new connections are made and if there are resulting outages to existing customers.
 - 1.4.1 If outages to existing customers do occur for new connections, please provide the average duration.
- 1.5 Please elaborate on the parts that Hemlock has had difficulty obtaining and how it intends to mitigate against any supply shortages.

On page 1, Hemlock also states the following:

Parts Inventory and Supply:

Maintaining an adequate supply of parts has caused challenges based on aging infrastructure, availability of specialized parts, and accessibility based on remote location.

Further on page 4, Hemlock states the following:

Factors affecting repairs and maintenance include availability of skilled labor, weather and impending snow, however the largest issue is the availability on parts which [Hemlock Valley Utilities Service] HVUS has already identified and will be resolving with the increase inventory on hand. As the maintenance plan tracking system is developed, we can anticipate the need for additional operational or infrastructure changes, however the primary focus will be on immediate repairs as availability of parts increases.

- 1.6 Please elaborate on which spare parts Hemlock is having difficulty obtaining and the reason(s) for such difficulty.
- 1.7 Based on the above-noted plan to increase spare parts inventory, please describe when Hemlock will have what it considers to be adequate inventory for the foreseeable future.
- 1.8 Given the difficulty in procuring spare parts due to the age of the exiting infrastructure, please describe when Hemlock expects the replacement of major assets to be required.
- 1.9 Please explain how accessibility based on remote location has impacted the availability of specialized parts. Please also discuss any mitigation measures that Hemlock has taken or plans to take to address this problem.

On page 2, Hemlock states the following:

Skilled Labour:

As we see an increase in new builds, higher volume of occupied units throughout the year, and overall increase service demands, we have also identified a need for additional support through contracted trades. Our challenge lies with coordinating and scheduling ticketed trades/contractors, and working with their availability vs. our timeline.

- 1.10 Please elaborate on Hemlock's electrical service contracts with respect to service ticket scheduling and expected response times.
- 1.11 Please explain what criteria Hemlock uses to assess the competency of operations and maintenance personnel contracted by Hemlock to perform duties related to the utility.

2.0 Reference: SAFETY AND RELIABILITY
Exhibit B-1, Question 2, p. 2
System Reliability

In response to BCUC Scoping Questions on page 2, Hemlock states:

Hemlock is not aware of the current maintenance schedule of [British Columbia Hydro and Power Authority] BC Hydro, but is currently working on learning more about their maintenance schedule. Based on visual presence, there may be some room for BC Hydro to improve the frequency of its vegetation management (which is a frequent culprit of power outages). A few years prior, BC Hydro had completed some vegetation

management, which appeared to have reduced the outages that were occurring. However, since then, there has been minimal maintenance done.

- 2.1 Please indicate what steps Hemlock has taken to interface with BC Hydro and learn more about its maintenance schedule on its supply feeder to Hemlock.
- 2.2 Please explain how Hemlock has determined that vegetation has been a frequent factor of power outages on BC Hydro's feeder.
- 2.3 Please elaborate on the relationship between BC Hydro and Hemlock in terms of maintenance planning.

3.0 Reference: **SYSTEM MAINTENANCE PLAN**
Exhibit B-1, Question 7, p. 4
System Reliability

In response to BCUC Scoping Questions on page 4, Hemlock states:

In the Mid-term – Hemlock is working on minimizing the length of unplanned outages which requires the implementation of fault detection in critical junction vaults. This will help decrease response time and assist in identifying fault location. There is no specific outline for this project at this time, therefore details on estimated costs, or recovery have yet to be determined.

- 3.1 Please indicate when Hemlock will begin planning the fault-detection project and roughly when it expects the project to be in-service.
- 3.2 Please describe the anticipated improvements in response and recovery time resulting from the implementation of fault-detection.

4.0 Reference: **SAFETY AND RELIABILITY**
Exhibit B-1, Question 5, p. 3.
Peak Load Forecast

In response to BCUC Scoping Questions on page 3, Hemlock states the following:

Hemlock has not communicated future demands to BC Hydro as of yet. The discussion will be occurring by end of year. The demands on the system are increasing with each new build, and with the pending development of the Resort, discussions will be initiated this year as Hemlock determines its peak load demands.

- 4.1 Given the increasing new builds and the pending development of the Resort, please explain whether any upgrades to the existing distribution system will need to be made in order to meet future loads and provide an estimate of the timing and cost of such upgrades, if any.
- 4.2 Please provide an approximate date by which Hemlock will determine its peak load forecast.

B. SYSTEM MAINTAINENCE

- 5.0 Reference: **SYSTEM MAINTENANCE PLAN**
Exhibit B-1, Questions 7, 8, p. 4
Maintenance

In response to BCUC Scoping Questions on page 4, Hemlock provided the following:

Factors affecting repairs and maintenance include availability of skilled labor, weather and impending snow, however the largest issue is the availability on parts which Hemlock has already identified and will be resolving with the increase in inventory on hand.

Further on page 4, Hemlock also provided the following:

Currently only Electricians from Platinum Electric are permitted to do inspections on the electrical grid. Hemlock has Platinum is on retainer to provide both inspections and maintenance recommendations. Platinum retains the FSR designation for the electrical utility. Planned inspections occur annually through visual inspections of the system. Infrared Imaging is the main tool used on the under-ground grid.

- 5.1 Given Platinum Electric is on retainer to provide both inspections and maintenance recommendations, please confirm that Platinum Electric is the only entity contracted to perform electrical work on Hemlock's distribution system.
- 5.1.1 If not confirmed, please identify parties that are authorized to perform electrical work on Hemlock's distribution system.
- 5.2 Please provide Platinum Electric's operating hours to respond to any events, planned or otherwise at Hemlock.
- 5.3 Please provide examples within the past 3 years when the availability of skilled labour negatively impacted Hemlock's ability to return the electrical system to service. Please discuss any mitigation measures that Hemlock has taken or plans to take to address this problem.

- 6.0 Reference: **SYSTEM MAINTENANCE PLAN**
Exhibit B-1, Question 6, p. 3
Maintenance

In response to BCUC Scoping Questions on page 3, Hemlock states:

As of February 2021, HVUS has been working towards a documented maintenance plan. This plan is currently in the early stages of development, starting with creating a database aimed at streamlining and centralizing information.

Documented maintenance plan currently includes the implementation of HVUS work orders (WO) to better track maintenance information on completed projects and jobs. Objective is to issue work orders towards individual electrical areas such as electrical vaults. WOs will include Vault number/ location/ work completed/ work required (which will trigger another WO). WO will provide the ability to track what has been done and what needs to be done. In return WO will lend themselves to showing excessive problem areas requiring extra preventative maintenance (PM) measures required or a need for reengineering of the design.

Currently vault PM measures are awaiting parts to move forward. As the PM program advances, information will be transferred to a spread sheet and centrally located for

ease of tracking as well as updates. The tracking system design and goal allows to quickly identify areas that require extra PM and/or a redesign in order to provide better system reliability.

Preliminary findings indicate the vault electrical elbows are beyond their service life. We have implemented immediate replacement of these end of service elbows, however availability of parts has caused some delays. The maintenance plan includes increasing on hand inventory of required repair parts, with inventory being monitored regularly and minimum levels maintained.

The maintenance plan will also include annual and biannual inspections based upon contractors' recommendations.

- 6.1 Please provide the major milestones and estimated timelines for the documented maintenance plan to be fully implemented.
- 6.2 Please outline any regulations, standards, recommendations or guidelines that are being applied during the development of the maintenance plan.
 - 6.2.1 Please discuss the qualifications and competency of the personnel developing the system maintenance plan.
- 6.3 Given Hemlock's plan to track work orders to identify highly likely problem areas for the preventative maintenance (PM) program, please describe the length of time that is expected before an adequate amount of data has been gathered for the program to be considered mature.
- 6.4 Given there will be a time lag in gathering data for the PM program, please explain if there are any other sources that may inform Hemlock's PM program in the interim.
- 6.5 Please provide the number of vault elbows that currently require replacement and the anticipated timeline for their replacement.
- 6.6 Please provide the typical service life for the vault elbows and their recommended replacement intervals.
- 6.7 Please explain how Hemlock's spare parts inventory levels have been informed, given there is currently only limited PM data.
- 6.8 Please describe how annual and bi-annual system inspections are currently documented and integrated into the maintenance plan.
 - 6.8.1 Please explain how this will differ under the new documented maintenance plan.

- 7.0 Reference:** **SYSTEM MAINTENANCE PLAN**
Exhibit B-1, Question 9, p. 5; Exhibit A2-1, Hemlock 2019 Annual Report – BCUC Staff Questions No. 2, p. 3; Application to Change the Terms and Conditions of Electric Tariff BCUC No. 1, Exhibit D-3-1
Safety Incidents and Documented Procedures

In response to BCUC Scoping Questions on page 5, Hemlock states:

Incident: March 4, 2018 – Case, 1 electrician was shocked while working during a power outage. This incident was reported and an investigation was conducted by Technical Safety BC. The recommendations from Technical Safety BC led to new procedures.

In Exhibit D-3-1 filed in the Application to Change the Terms and Conditions of Electric Tariff BCUC No. 1 (Electric Tariff Proceeding), the Letter of Comment submitted by Jason Vance includes the following:¹

Connecting these cabins to utilities appears to be sometimes challenging for the Company. It is their responsibility to locate and flag the locations of their assets for development to safely proceed. Yet, Company employees have been witnessed doing this with outdated maps that can be inaccurate in today's Hemlock Valley. Employees do what they can with metal detectors and exploratory digging, sometimes finding their marks under large concrete blocks, trees or nowhere near where they're supposed to be. Unsuspecting builders and machine operators have the possibility of hitting and damaging Hemlock Utilities Services Ltd.'s assets due to their own negligence, but to the Utility's inadequate asset oversight. Damage done can delay construction, add immense cost to owners and potentially harm individuals.

- 7.1 Please provide a copy of the new procedures that were developed following the recommendations from Technical Safety BC.
- 7.2 Have any fines or penalties been levied as a result of any incidents related to Hemlock's electrical utility operations?
- 7.3 Please explain if Hemlock is currently being investigated by any regulatory body for safety related violations.
- 7.4 Please confirm, or otherwise explain, that Hemlock currently has safety protocols and procedures in place to ensure the safety of its contractors, employees, customers and the public.
 - 7.4.1 If confirmed, please outline any regulations, standards, recommendations or guidelines that have been applied in the development of these safety protocols and procedures.
- 7.5 Please confirm, or otherwise explain that Hemlock has procedures in place and the necessary resources to respond to safety and reliability issues at Hemlock, including but not limited to:
 - Cybersecurity;
 - Disconnecting and/or restoring electrical service;
 - Electrical utility maintenance, operations and back-up electricity generation;
 - Electrical system line locating;
 - Emergency Response;
 - Environmental incidents;
 - Fire, of any origin;
 - Motor vehicle accident, or otherwise with the potential to impact electrical infrastructure;
 - Natural disaster with the potential to impact electrical infrastructure;
 - Snow or ice removal at, or above grade; and
 - Vegetation management.
 - 7.5.1 If confirmed, please outline any regulations, standards, recommendations or guidelines that have been applied in the development of these procedures.

¹ https://www.bcuc.com/Documents/Proceedings/2021/DOC_60932_D-3-1-Vance-J-Letter-of-Comment_Redacted.pdf

8.0 Reference: **SYSTEM MAINTENANCE PLAN**
Exhibit B-1, Question 10, p. 5
Vegetation Management/Snow and Ice Removal

In response to BCUC Scoping Question No. 10, Hemlock states:

The current vegetation management plan consists of a successful mulching program using subcontractors. This is used for the above ground power. Around transformers pull boxes and Vaults, HVUS utilize hand tools such as pruners brush saws and chainsaws. Snow and ice are removed from vaults and transformers around the village using heavy equipment such as Excavators and wheel loaders. This plan is sufficient however it can be costly as our snow loads are some of the highest in the world with an average snowpack of 4+Meters

The vegetation management plan includes:

- Clearing larger areas along the power lines every 5 years.
- Clear the trees that are more pressing near and directly to the power lines on a regular basis, or as needed. This will be contract to a Qualified high voltage arborist.

- 8.1 Please provide the vegetation management schedule, including the last year it was completed and the next year it is due.
- 8.1.1 Please elaborate on the inspection frequency established by "on a regular basis" and how action on an "as-needed" basis is determined.
- 8.2 Please outline any regulations, standards, recommendations or guidelines that have been applied in the development of Hemlock's Vegetation Management Plan.
- 8.3 Please provide the number and duration of outages over the last 3 years that had vegetation-related causes.
- 8.4 Please provide the number and duration of outages over the last 3 years that had snow or ice-related causes.
- 8.5 Please describe the regular vegetation management plan in terms of labour hours and area or trees cleared in a year.
- 8.6 Please explain if Hemlock has seen any changes in vegetation growth rates and whether the current 5-year clearing cycle is still considered adequate.
- 8.7 Please describe the snowfall/ice management program in terms of response time and whether it is cleared by on-site staff or by contractors.
- 8.7.1 If cleared by contractors, please provide the standard for clearing response time after snowfall.

9.0 Reference: **SYSTEM MAINTENANCE**
Exhibit A2-1, Hemlock 2019 Annual Report – BCUC Staff Questions No. 2, p. 3
Vegetation Management/Snow and Ice Removal

In Hemlock's response to the Hemlock 2019 Annual Report – BCUC Staff Questions No. 2, Question 8.2, related to snow and ice removal, it states:

- Snow and Ice on overhead lines is usually not a long-lasting problem due to daily temperature rises. A small hit with a sledgehammer at the base of the pole on a

warm day is usually enough to free up ice that is building up.

- Snow Removal of Underground High voltage is performed with an excavator and spotter and is done along side Fire Hydrant snow removal.

- 9.1 Please explain whether the technique of ice removal described above is an industry standard practice.
- 9.2 Please explain whether the ice removal technique described above can cause any adverse effects to the service life of the pole.
- 9.3 Please describe whether Hemlock has ever investigated or used ice and snow removal techniques such as load current conductor heating, ice rolling or line wacking.

10.0 Reference: **SYSTEM MAINTENANCE**

**Electric Tariff Proceeding, Exhibit A2-2, Hemlock Response to BCUC IR No. 1, p. 6
Reliability**

In response to BCUC IR No.1, Question 2.3, from the Hemlock Electric Tariff Proceeding, Hemlock states:

Hemlock Utility Services has maintained a relationship with Wind River Power Corporation to keep updated on the progress of “islanding” the run-of-river project on Sakwi Creek. Wind River Power Corporation would then supply BC Hydro with power that would effectively act as a backup supply source for Hemlock Valley and the Sts’ales First Nations community. The exact terms of Wind River’s contract with BC hydro are not known to Hemlock Utility Services.

Hemlock Utility Services received confirmation from Wind River that the facility will be able to meet current load demands if there is a sufficient water supply to operate the facility at full capacity. This may exclude summer months when water is scarce. Due to the expected progress of Wind River Power Corporation, Hemlock Utility Services has not engaged any other parties to provide redundant power. In the event that Wind River’s “islanding” plan does not succeed, Hemlock Utility Services will engage BC Hydro to discuss options for increasing the reliability to our service area.

- 10.1 Please provide an update as to the potential use of the Sakwi Creek project as a redundant power source to service Hemlock.
- 10.2 Please comment on whether BC Hydro has communicated any plans to use the Sakwi Creek project as a redundant power source to service Hemlock.
- 10.3 Please comment on whether BC Hydro has communicated any other plans for providing electrical service redundancy to Hemlock.

11.0 Reference: **SAFETY AND RELIABILITY**

**Exhibit B-1, Question 3, p. 2.
Reliability**

On page 2, in Hemlock’s response to BCUC Scoping Questions states:

During maintenance HVUS is capable of isolating sections of distribution being serviced. This is done through underground vaults and parking the incoming feeds upstream and downstream of the fault allowing HVUS to limit the number of affected customers during routine maintenance.

- 11.1 Please provide the average number of customers that are disconnected at the vault during

routine maintenance activities.

- 11.2 Please provide the 3-year average annual number of disconnections for routine maintenance activities.

12.0 Reference: SYSTEM MAINTENANCE

**Exhibit A2-1, Hemlock 2019 Annual Report – BCUC Staff Questions No. 2, p. 2; Exhibit D-1-1, p. 1
Reliability**

In response to Hemlock 2019 Annual Report – BCUC Staff Questions No. 2, Question 7.3, Hemlock describes the programs in place to achieve reliability targets:

- Hemlock has added fault detection to our overhead High Voltage Lines to facilitate fault locating and partial energizing of the system. Hemlock will be committing more funding to fault detection in the future to minimize outage lengths.
- Maintenance will be scheduled for days where home installations also occur.
- Inspection of H.V. Poles. All overhead poles were inspected in 2019. Three poles were identified as rotting and replaced in 2019 & 2020.
- Resort High Voltage Switch – Heating and Insulating layer added to reduce condensation in the enclosure. Disconnect switch replaced. Resort Generator now runs during all outages to maintain heat to the High Voltage Disconnect.
- Thermal Scanning of High Voltage Equipment to take place in 2021

12.1 Please comment on the outcome of the addition of fault detection on the overhead High Voltage Lines and whether they have assisted in improving reliability.

12.2 Please comment on whether maintenance has been scheduled to coincide with home installations and if any reliability improvements have been realized.

12.3 Please describe the regular inspection program with respect to Hemlock's distribution assets.

12.4 Apart from the resort generator, please explain whether Hemlock intends to add more backup generating capacity to its system and the reasons for such a position.

12.5 Please confirm that thermal scanning of High Voltage Equipment took place during 2021.

12.5.1 If confirmed please describe any findings, required corrective actions and their associated timelines.

12.5.2 If not confirmed, please provide an update as to when the thermal scanning is expected to take place.

In Exhibit D-1-1, the letter of comment from Shirley Kingsbury includes the following:

When the area was first developed, there was a generator dedicated to the village. Over the years, the resort decided this was not in their interest and the service was discontinued.

12.6 Please confirm whether Hemlock's distribution system has ever had back-up generators in the past.

12.6.1 If confirmed, please explain why they were removed from service.

- 12.7 Please explain whether Hemlock is considering the use of back-up generators to mitigate BC Hydro outages and the accompanying reasons for such a decision.
- 13.0 Reference:** **SYSTEM MAINTENANCE PLANS**
Exhibit A2-3, 2019-20 Service Quality Report, p. 1.
Reliability Metrics

As part of its F2020 annual report, Hemlock provided the following reliability data:

Total of Power Interruptions:	5 Days 3h 57m
Total Hours:	123.95
Total Downtime % :	1.41%
Total Customer Downtime (hrs):	31907.08
Yearly System Average Interruption Duration Index (SAIDI):	126.11
Yearly Customer Average Interruption Duration index (CAIDI)	8.31
Yearly System Average Interruption Frequency Index (SAIFI):	15.18

Hemlock Utility Outages:	0 Day 16h 51m
Total Hours:	16.85
Hemlock Utility Downtime %:	0.19%
Total Customer Downtime (hrs):	4206.98
Hemlock Utility SAIDI:	16.24
Hemlock Utility CAIDI	4.19
Hemlock Utility SAIFI:	3.88

- 13.1 Please provide the above metrics for the F2018 and F2019 operating years.
- 13.2 Please provide a breakdown of frequency in number of occurrence and percent between Hemlock-caused and BC Hydro-caused outages for the past three fiscal years.
- 13.3 Please provide a breakdown of duration in number of hours and percent between Hemlock-caused and BC Hydro-caused outages for the past three fiscal years.
- 13.4 Please describe the communication procedure that occurs between BC Hydro and Hemlock in the case of a BC Hydro-caused outage.
- 13.5 Please describe Hemlock's contractual supply relationship with BC Hydro and its expected service standards.
- 13.6 Please explain whether Hemlock has engaged BC Hydro in improving the reliability of its electrical supply.
- 13.7 Is Hemlock aware of any BC Hydro efforts to improve reliability on the feeder?
- 13.7.1 If so, please describe such efforts.

C. EMERGENCY RESPONSE AND DISASTER MANAGEMENT

- 14.0 Reference: **Emergency Response and Disaster Management Plan**
Exhibit B-1, Questions 12–13, p. 6
Emergency Response and Disaster Management

On page 6, in response to BCUC Scoping Questions, Hemlock states:

The emergency preparedness plan is being updated for both SMR and Hemlock Valley Utilities. Currently there are no further details to add.

On page 6, Hemlock also states:

Training the team in emergency response is crucial and will be outlined in the emergency response plan.

- 14.1 Please provide the project plan for the development of the Emergency Response and Disaster Management Plans, including completion and implementation dates.
- 14.1.1 Please confirm, or otherwise explain, that the “emergency preparedness plan” and “emergency response plan” described above are one and the same.
- 14.1.2 Please outline any regulations, standards, recommendations or guidelines that are being applied in the development of these plans.
- 14.1.3 Please confirm, or otherwise explain, that there are emergency response procedures or guidelines in place for Hemlock.
- 14.1.3.1 If confirmed, please provide a copy of these plans.
- 14.1.4 Please explain how emergency response plans relative to the safety of Hemlock contractors, employees, customers and the public are communicated to the affected parties.
- 14.1.4.1 Please confirm, or otherwise explain that the affected parties are aware of Hemlock’s current emergency response plan.

D. CUSTOMER SERVICE

- 15.0 Reference: **BCUC ORDER G-153-21 COMPLIANCE FILING**
Exhibit A2-4, pp. 1–2
Customer Complaints Guideline

On December 14, 2020, Hemlock filed with the BCUC an application to revise Section 19 (Liability of the Company re: Service) of its Electric Tariff Terms and Conditions (Electric Tariff Proceeding). In the Electric Tariff Proceeding, Hemlock sought approval to include additional liability provisions relating to its supply of electricity to customers.

Pursuant to Directive 4 of Order G-153-21 dated May 21, 2021, the BCUC directed Hemlock to implement a complaint logging process and develop a customer complaints guideline (Complaints Guideline) to ensure all customer complaints are addressed and resolved in a timely manner. On June 18, 2021, Hemlock submitted its Complaints Guidelines to the BCUC.

Provided below is an excerpt of the Complaints Guideline, as filed by Hemlock:

PART 3 – Ensuring Responses are being made on a timely manner

Our accounting department, which is independent of the Utility team responsible for answer the complaints, has direct access to the Google Docs spreadsheet and will be able to monitor the progress on the complaints. If an issue is taking longer than 48 hrs to resolve or at minimum connect with the customer, the Accounting department will review and discuss with the team and make any necessary improvements in order to assure the customers complaints are properly dealt with.

An email will be sent to the Customers no later than the June 30, 2021 detailing the process for complaints.

- 15.1 Please confirm whether Hemlock has sent an email to its customers detailing the process for complaints. Please also confirm whether Hemlock has sent a copy of its Complaints Guidelines to its customers.
- 15.2 Please confirm whether Hemlock will publish a copy of its Complaints Guideline on its website.
 - 15.2.1 If not confirmed, please explain why not.
- 15.3 Please clarify the roles and responsibilities of the “Accounting department”, the “team”, and the “Utility team” with respect to the Complaints Guideline.
 - 15.3.1 Please discuss whether the “Accounting department” is solely responsible for monitoring the progress of customer complaints. In your response, please discuss whether any other Hemlock departments or teams monitor this progress.
- 15.4 Please discuss Hemlock’s standard procedure in the event that a customer requests to escalate their complaint. In your response, please indicate which department, or team, is responsible for reviewing escalated complaints.
 - 15.4.1 Please confirm whether Hemlock is amenable to amend the Complaints Guideline to specify that customers may file a complaint with the BCUC if Hemlock is unable to resolve the complaint with the customer.
 - 15.4.2 If not confirmed, please explain why not.
- 15.5 Please confirm whether Hemlock has received any new complaints since the conclusion of the Electric Tariff Proceeding.
 - 15.5.1 If confirmed, please provide a high level summary regarding the complaint(s) and how they were addressed and resolved.

16.0 Reference: **BILLING AND PAYMENT**
Exhibit A2-2, BCUC IR 4.1, 4.3, 4.3.1, pp. 11–12; Exhibit B-1, Section 2.4, Question 15, pp. 7-8; Exhibit A2-1, p. 1
Invoicing, Accounting Changes & Metering

On page 12 of Exhibit A2-2, Hemlock provided the following response to BCUC IR 4.3 and 4.3.1:

The invoices do include items i thru [sic] iii and v above.

Invoicing used to provide carried forward balances until 2014 when the accounting system changed to a more complex system which allowed Hemlock Utility to reduce the amount of Data entry required to produce invoices. With the new system some flexibility in the invoicing was lost. With our new staffing changes the accounting department now sends out statements to those customers who have previous balances.
[Emphasis added]

Hemlock Utility is not opposed to adding these features to the invoices, however, requests that the costs involved be allowed to for any future rate applications. As the accounting system has lost some of its flexibility on the invoice design, Hemlock Utility Services will employ a firm to develop a more detailed invoice, but request all costs to do so, can be used in any future rate applications. [Emphasis added]

In response to BCUC Scoping Question 15 on page 7 of Exhibit B-1, Hemlock states:

Hemlock has not had adequate time to source quotes for these types of accounting changes, however, Hemlock has made efforts to improve the time of invoicing as well as information on invoices.

- Hemlock has since employed a utilities administrative assistant and a maintenance assistant to conduct the meter reads. This will allow meter reads to occur in a timely and consistent manner regardless of any emergent utility repairs. This has been successfully implemented for a few months. [Emphasis added]
- Once meters reads are taken, information is sent to the utilities administrative assistant for processing. Invoices are created in preparation of receiving meter read with a goal to have all invoices prepared and sent within 3 days of receiving the meter reads. [Emphasis added]
- Additional information appearing on invoices is date of previous meter read and date of current meter read.

Hemlock will continue to work with software solution companies to improve the invoicing system.

16.1 In consideration of Hemlock's new hiring of a utilities administrative assistant and maintenance assistant, please discuss whether Hemlock still intends to employ a third-party accounting firm to accommodate the accounting changes as proposed by Hemlock in the Electric Tariff Proceeding.

16.1.1 Please discuss whether Hemlock is still currently experiencing staffing challenges.

16.1.1.1 If confirmed, please discuss whether Hemlock plans to onboard new employees to resolve staffing issues.

16.2 Please specify as to what Hemlock aims to improve with its invoicing system in collaboration with its software solution companies. In your response, please indicate any new developments, if any, that Hemlock wishes to implement.

In response to IR 4.1 on page 11 of Exhibit A2-2, Hemlock states:

The billing cycle is intended on being monthly as we are required by the Tariff to invoice monthly. Over the past 2 years there have been some staffing challenges that have caused some billing timing issues. Those issues are being resolved and as a result of the changes the following is the accounting system going forward:

[...]

- Invoices will reflect Net 15 due date, currently the tariff depicts due immediately, however to be consistent with the other billing divisions, Net 15 is more appropriate. [Emphasis added]

On page 7 of Exhibit B-1 in response to BCUC Scoping Questions, Hemlock states:

Hemlock is not amenable to update the terms and conditions as part of these proceedings. Hemlock does not wish to delay the proceedings regarding the safety and reliability. Hemlock thus request the BCUC provide a reasonable timeline for Hemlock to submit the updated tariff after these proceedings are completed.

- 16.3 Please indicate whether Hemlock has received any customer feedback regarding the Net 15 payment term as proposed in the Electric Tariff Proceeding.
- 16.4 With respect to Hemlock's request to submit an updated Electric Tariff at a later date, please discuss whether Hemlock has considered the potential administrative burden and added regulatory costs associated with a separate BCUC proceeding to consider any subsequent changes to Hemlock's Tariff. If not, please explain why not.

Page 1 of Hemlock's F2019 Annual Report provides the following:

- a. Service Quality Metrics
 - b. We had approximately 5 Meter reading errors in 12 billings. Each billing was approximately 250 customers, an error percentage of 0.16%.
- 16.5 Please explain whether the meter reading errors are equipment-related (i.e. accuracy/precision of measuring equipment) or operator-related.
 - 16.5.1 Please confirm, or explain otherwise, whether Hemlock conducts meter read audits. If applicable, please discuss the process and how often Hemlock conducts meter read audits.

17.0 Reference: CYBERSECURITY
Exhibit A2-4, p. 2; Exhibit B-1, p. 8
Third-Party Platforms & IT Service Provider(s)

On page 2 of Exhibit A2-4, Hemlock states:

[...]

Once a complaint is submitted thru the website, it automatically gets added to a google doc spreadsheet. On this spreadsheet the Team will be tracking how the customer was contacted, what other details are relevant, how the issue was resolved, and any required follow up. [Emphasis added]

[...]

Our accounting department, which is independent of the Utility team responsible for answer the complaints, has direct access to the Google Docs spreadsheet and will be able to monitor the progress on the complaints. [Emphasis added]

- 17.1 Please explain whether the Google account used by Hemlock is personally identifiable with a Hemlock employee or other individual, or whether it is a generic account associated with the organization.
 - 17.1.1 Please confirm whether the Google account is used by multiple persons to access the customer complaints data, or otherwise.
 - 17.1.2 If the Google account is used by multiple individuals, please describe how access to the

customer data is controlled.

- 17.1.3 Please explain how the Google account is secured from being compromised or misused.
- 17.1.4 Please discuss how Hemlock ensures that the customer complaints data is not inadvertently or otherwise destroyed or inaccessible.
- 17.2 Please confirm, or otherwise explain, that all customer information collected is subject to the *Personal Information Protection Act*. Please also confirm whether Hemlock has a privacy policy in place respecting customer information and if not, please explain why not.

On page 8 of Exhibit B-1, Hemlock states:

Hemlock uses a third-party IT company for all our IT support and cybersecurity. Data is stored on local servers. All data is stored behind enterprise grade firewall and antivirus solutions. Offsite backups are kept within Berezan Organization and data is never stored on any third-party system. Access to the data is limited to authorized employees, access must be approved by a senior manager and can only be granted by the IT company.

- 17.3 Please discuss whether the third-party IT company stores any information that, if obtained by an unauthorized person, could be misused to cause an adverse impact on: (i) the safe and reliable operation of Hemlock's distribution network; (ii) on Hemlock's customers; and (iii) on partner organizations such as BC Hydro.
- 17.4 Please describe the process followed by Hemlock, and the third-party IT service provider, when periodically reviewing access to the Hemlock system and revoking access as soon as possible when no longer required; for example, when an employee is terminated.
- 17.5 Please describe the remote access process, if any, to remotely access the data on the third-party IT systems.