CHARTERED PROFESSIONAL ACCOUNTANTS CANADA

**CFE CANDIDATE NUMBER:** | | | | | | | |

# Common Final Examination
# September 12, 2019 – Day 2
# (Booklet #1 – Case)

**Total examination time: 5 hours.**
**Further details on the examination can be found on the next page.**

**GENERAL INSTRUCTIONS BEFORE THE EXAMINATION**

1. Fill in your 7-digit candidate number on the booklets. The exam booklets (or paper response, as instructed) must be submitted before leaving the writing centre. They must NOT BE REMOVED from the writing centre. If these items are not received, the response may not be accepted.
2. Follow the *SecureClient* instructions provided. Instructions must not be removed from the writing centre.
3. Acknowledge the Policy Statement and Agreement Regarding Exam Confidentiality in *SecureClient* (as shown below).

**Policy Statement and Agreement Regarding Exam Confidentiality**

I understand that all examination materials are the property of CPA Canada and are under the exclusive custody and control of CPA Canada. CPA Canada has the exclusive authority over examination materials to determine the contents, use, retention, disposition and disclosure of this material. Candidates do not have access to the examination questions, examination marking keys or any other marking materials for a non-disclosed examination. For disclosed examination questions, access to questions, marking keys and other marking materials is only available when published by CPA Canada.

I hereby agree that I will not:

- Obtain or use answers or information from, or give answers or information to, another candidate or person during the sitting of the examination;
- Refer to unauthorized material or use unauthorized equipment during testing; or
- Remove or attempt to remove any CPA Canada Examination materials, notes or any other items from the examination room.

I further agree to report to CPA Canada any situations where there is a material risk of compromising the integrity of the examination.

I affirm that I have had the opportunity to read the *CPA Examination Regulations* and I agree to all of its terms and conditions.

In addition, I understand that failure to comply with this Policy Statement and Agreement will result in the invalidation of my results, and may result in my disqualification from future examinations, expulsion from the profession and possible legal action.

_____ _____

CANDIDATE NAME (Please print) SIGNATURE

## Examination Details

**The examination consists of:**

**Booklet #1 – Case (this booklet)**
**Booklet #2 – Rough notes**

Candidates are allowed **five (5) hours** to respond.

The case should be answered in *SecureClient*, which has a word processor and spreadsheet for inputting your response. The main body of your response should be in the word processor file. Only supporting calculations should appear in the spreadsheet file, in **Sheet 1**. A copy of the financial statements (balance sheet and income statement) from the case has been preloaded into the spreadsheets that follow **Sheet 1**. Those spreadsheets are in read-only mode. You must copy and paste the financial statements into your **Sheet 1**, where you can then do all your calculations. You are responsible for clearly explaining all your calculations.

Answers or part answers will not be evaluated if they are recorded on anything other than *SecureClient* or the CPA Canada writing paper provided.

The CPA Canada Handbooks and the *Income Tax Act* are available within *SecureClient* throughout the entire examination. *SecureClient* provides the standards in effect and tax laws substantively enacted as at December 31, 2018.

A tax shield formula and other relevant tax information are available at the end of this booklet.

Rough-note paper is available in a separate booklet. Rough notes, and any other notations made in the exam booklet(s), will not be evaluated.


Common Final Examination, September 2019

Chartered Professional Accountants of Canada
277 Wellington Street West
Toronto, Ontario M5V 3H2

**Case**

**Assume the pre-selected role in which you will be formulating your response. Answer all requireds as specifically directed in your role. Within the requireds for each role, candidates are directed to look at specific additional appendices, which are unique to each role. Use only the information you have been directed to refer to.**

**Information that is common to all roles is presented in the "Common Information" section. Additional information, customized to each role, is presented in the "Specific Information" section.**

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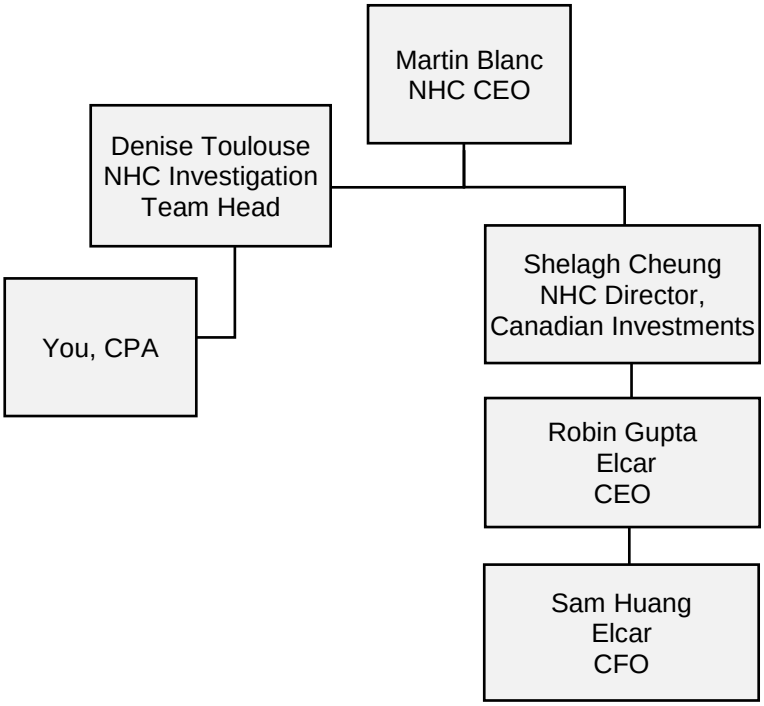
## BACKGROUND
## COMMON INFORMATION FOR ALL ROLES

NHC is a U.S. company owned by entrepreneur Martin Blanc. NHC has investments in diverse technology companies, one of which is a 100% interest in Elcar Inc. (Elcar), a Canadian manufacturer of electric cars. Due to the risk of the investment, NHC has set the desired after-tax return on investment for Elcar at 25%. NHC's objective is for Elcar to either be sold or to eventually produce a steady cash flow.

The following describes the oversight roles for Elcar:




Oversight of Elcar's operations is the responsibility of Shelagh Cheung, NHC's director of Canadian investments, who has a master's degree in biology. There is no formal oversight or approval of Elcar's policies by NHC. Robin Gupta is Elcar's only board member and CEO. He has held the CEO position for three years and has a background in research and technical innovation. Shelagh has a monthly phone call with Robin and receives Elcar's monthly financial statements and a key measures report prepared by Sam Huang, Elcar's CFO. Sam has many years of financial experience but no formal accounting designation. Because Robin prefers to spend money on product development rather than on overhead expenses, Elcar's accounting department is small.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## BACKGROUND (continued)
## COMMON INFORMATION FOR ALL ROLES

Generally, Shelagh performs a brief review of Elcar's monthly reporting package and then archives it. She reviewed and approved the 2019 annual budget. Shelagh has been ill for the past two months and has just returned to work.

It is now June 22, 2019. Historically, NHC has provided funding to Elcar in exchange for common shares. The forecast that Elcar prepared back in 2018 had predicted over $1 million of pre-tax income for the year ended May 31, 2019. Unfortunately, the year-end results are a loss, despite vehicle sales of 812 units for the fiscal year, at an average sales price of $37,806.

NHC has an investigation team that reports directly to NHC's CEO. Headed by Denise Toulouse, the team is comprised of four Canadian CPAs and two other employees. It performs periodic reviews of NHC's investees and, where possible, provides advice in order to improve performance.


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## REQUIREMENTS FOR YOUR ROLE
## (READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)

### ASSURANCE REQUIREMENTS

You, CPA, are a member of the special investigation team currently working onsite at Elcar's facility. As part of its work, the team generally performs the same steps, but Denise has added some requests specific to Elcar's circumstances.

Platinum is a high-value, key component in Elcar's battery manufacturing. Therefore, Denise asks you to perform a variance analysis between budgeted and actual platinum costs and to report your findings.

Elcar committed to purchase a quantity of parts from K3Press Corporation (K3Press), which in hindsight is excessive. Denise asks you whether Elcar should be advised to cancel the contract. She asks for both quantitative and qualitative support.

Denise noted NHC's frustration with Elcar's reporting package. She asks you to review the key measures report that Elcar provides to NHC, recommend improvements, and make suggestions that would allow NHC to better monitor Elcar's financial results and would assist NHC in its decision to further fund Elcar.

Given Elcar's small accounting department, Denise is concerned with some financial reporting issues. Specifically, she would like you to assess the accounting for the foreign currency transactions, the revenue from car sales made under the new marketing program, the K3Press contract, the future dismantling of Elcar's battery construction facility and the recently acquired high-value artwork.

Being the sole shareholder, NHC is considering waiving the requirement to have Elcar audited by external auditors, even though Elcar has had external audits since NHC acquired it. Denise has been asked to perform the equivalent of an external year-end financial statement audit for the year ended May 31, 2019, following *Canadian Auditing Standards*. Therefore, Denise asks you to draft an audit planning memo. She also asks you to document the audit procedures that you recommend be undertaken for the areas in which errors or control deficiencies have been found.

Given that Elcar obtained a line of credit this year from a bank that requires financial statements from Elcar, Denise wants to ensure that Elcar's going concern assumption has been properly assessed. As a result, Denise has obtained Elcar's updated cash flow forecast and asks you to describe what audit procedures the team should perform on it.

Effective this year, the provincial government requires an audit report on compliance with an agreement that Elcar has with the government. In order to prepare Elcar's management team, Denise asks you to document the procedures that an external auditor will need to perform for this engagement.


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**REQUIREMENTS FOR YOUR ROLE**
**(READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)**

**ASSURANCE REQUIREMENTS (continued)**

In order to suggest improvements, an assessment of the internal control deficiencies is a standard part of the team's work. Denise asks you to discuss any control deficiencies related to the platinum inventory, as well as those you identify from your review of Elcar's activities.

Denise noted that Elcar's management wants to be able to state on its website that its "environmentally responsible actions" have been verified by an independent party. For each statement made on the website, she would like you to indicate whether it can be independently verified and explain how it could be verified, or describe the challenges the statement may pose in terms of independent verification.

In addition to the common appendices (I to III), information provided in Appendix IV (Assurance) is relevant for your analysis.


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## REQUIREMENTS FOR YOUR ROLE
## (READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)

### FINANCE REQUIREMENTS

You, CPA, are a member of the special investigation team currently working onsite at Elcar's facility. As part of its review, the team generally performs the same steps, but Denise has added some requests specific to Elcar's circumstances.

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Given Elcar's small accounting department, Denise is concerned with some financial reporting issues. Specifically, she would like you to assess the accounting for the foreign currency transactions, the revenue from car sales made under the new marketing program, the K3Press contract and the future dismantling of Elcar's battery construction facility.

To determine Elcar's funding needs, Denise asks you to analyze and comment on the assumptions used in the latest forecast prepared by Elcar as part of its most recent funding request, and to calculate Elcar's cash position at the end of each fiscal year from 2020 to 2023.

Denise asks you to describe the actions NHC could recommend to Elcar if NHC decides not to fund Elcar. She wonders whether Elcar has other financing options that could be considered or whether Elcar could reduce its need for external financing by decreasing certain operating costs.

One of the options is to bring in a new equity investor, who would purchase newly issued shares of Elcar. Denise wants to know what percentage of Elcar would have to be sold to cover Elcar's cash requirements (based on a discounted cash flow valuation using the existing forecast, without consideration of other financing or operational changes), and the qualitative impact of this financing strategy on NHC. In addition, she asks you to prepare a second valuation of Elcar, using an asset-based approach, to support a possible sale of a percentage of Elcar.


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**REQUIREMENTS FOR YOUR ROLE**
**(READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)**

**FINANCE REQUIREMENTS (continued)**

Sam has asked NHC to help evaluate a grant offer that Elcar recently received from the provincial government. Denise directs you to provide an analysis of the proposed grant and to recommend whether to accept this offer.

Denise asks you to provide a capital budgeting analysis of the possible purchase of a battery-testing device, and to determine whether it can be justified for Elcar.

Shelagh is concerned about the impact of platinum price increases on Elcar's future financial position. She would like you to review possible platinum price hedging strategies, including futures, options or acquiring a mine (see offer), but not to discuss any related accounting issues.

In addition to the common appendices (I to III), information provided in Appendix IV (Finance) is relevant for your analysis.


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## REQUIREMENTS FOR YOUR ROLE
## (READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)

### PERFORMANCE MANAGEMENT REQUIREMENTS

You, CPA, are a member of the special investigation team currently working onsite at Elcar's facility. As part of its review, the team generally performs the same steps, but Denise has added some requests specific to Elcar's circumstances.

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Given Elcar's small accounting department, Denise is concerned with some financial reporting issues. Specifically, she would like you to assess the accounting for the foreign currency transactions, the revenue from car sales made under the new marketing program, the K3Press contract and the future dismantling of Elcar's battery construction facility.

Elcar last requested funding from NHC in late fiscal 2016. At that time, Elcar's management provided a proposal and a four-year forecast. Denise asks you to review the proposal Elcar provided to NHC to support the 2017 cash injection, and to comment on Elcar's actual performance relative to that initial proposal.

In order to further assess the current situation, Denise would like you to discuss the risks that Elcar is facing and suggest how to mitigate them.


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**REQUIREMENTS FOR YOUR ROLE**
**(READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)**

**PERFORMANCE MANAGEMENT REQUIREMENTS (continued)**

NHC would like its investees to maintain a minimum cash balance of $3 million at the end of each month. Elcar has recently submitted its six-month cash flow forecast. Denise would like you to review it and make any changes you believe are necessary. If, while reviewing the forecast, you notice any areas where Elcar could reduce costs, you are asked to note them.

Sam told Denise they are investigating paying the vehicle and battery assembly employees strictly by piecework. Denise asks you to analyze this form of compensation and provide your recommendation.

In addition, Denise wants a quantitative and qualitative analysis of the electric bicycle proposal, and a recommendation on whether to pursue the venture.

Denise asks you to recommend changes that would improve the governance and oversight of Elcar by NHC. This includes possible changes to the Board of Directors, structure or policies and processes.

Denise believes that Elcar's performance could be improved if each department had better performance indicators. She would like your comments on the current performance measurement system, and suggestions for improvement.

In addition to the common appendices (I to III), information provided in Appendix IV (Performance Management) is relevant for your analysis.


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## REQUIREMENTS FOR YOUR ROLE
## (READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)

### TAXATION REQUIREMENTS

You, CPA, are a member of the special investigation team currently working onsite at Elcar's facility. As part of its review, the team generally performs the same steps, but Denise has added some requests specific to Elcar's circumstances.

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Given Elcar's small accounting department, Denise is concerned with some financial reporting issues. Specifically, she would like you to assess the accounting for the foreign currency transactions, the revenue from car sales made under the new marketing program, the K3Press contract and the future dismantling of Elcar's battery construction facility.

Denise would like a calculation of the loss for tax purposes for the May 31, 2019, year end. She would also like to know the impact on the current and future tax returns of the financial reporting issues she has identified.

In addition, she is interested in the taxation of the Jitcoin, a cryptocurrency, particularly if the company starts selling cars for Jitcoin. Like other cryptocurrencies, Jitcoin is considered a commodity, not cash, for income tax purposes. You are asked only to assess the treatment of Jitcoin for tax purposes, not for financial reporting purposes. Denise is also interested in the taxation of the partnership unit investments.

Denise also asks you to advise Elcar and NHC on any ways to use Elcar's tax losses against the income of a related corporation, FilterH2O Corporation. Management expects about $5 million more tax losses in Elcar prior to it becoming profitable and possibly sold.

Further, Elcar's HR director is considering alternatives for the CEO's compensation. Denise wants to understand the tax implications for Robin, and for Elcar, of the alternatives presented.


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**REQUIREMENTS FOR YOUR ROLE**
**(READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)**

**TAXATION REQUIREMENTS (continued)**

Elcar is planning to send one of its scientists to a university in Grenada in order to conduct research. The HR director asks about the income tax implications of this temporary assignment for this person.

NHC has informed Elcar that, if NHC agrees to provide more funding, it may be advanced either through NHC or NHC Canada. It may come in the form of a loan or through the issuance of new common or preferred shares in Elcar. Denise would like a discussion of the tax implications of these forms of financing (and the income associated with them), now and in the future. She would also like suggestions for ways to transfer income to the U.S. if Elcar becomes profitable, in order to take advantage of the lower U.S. corporate tax rates.

Finally, Robin has presented two tax planning ideas that have been proposed by employees over the last few months. Denise would like you to evaluate these ideas to determine whether they are worth pursuing, and to discuss the risks associated with each if implemented.

In addition to the common appendices (I to III), information provided in Appendix IV (Taxation) is relevant for your analysis.


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## APPENDIX I – COMMON INFORMATION ABOUT ELCAR INC.

Elcar was incorporated on January 2, 2015, under the *Canada Business Corporations Act*. Elcar has a May 31 fiscal and taxation year end and reports under IFRS. Elcar's tax rate would be 28% if it had any taxes payable, but it has had none so far. Its incremental borrowing rate from the bank is 8%. Elcar's mission statement is:

*"To develop, market and sell innovative electric vehicles using industry-leading battery technology."*

As many countries are forcing car manufacturers to reduce emissions, the electric car industry is growing, with several new entrants. Many of the large automakers have developed their own electric vehicles and offer special financing terms to their customers. Electric cars compete not only with fuel-powered vehicles but also with hybrid cars, which run on both electricity and gasoline. Hybrids are often marketed as having greater flexibility than electric models.

Electric cars are quiet, drive and accelerate well, and are simple to maintain and operate. However, electric vehicles are priced significantly higher than fuel-powered vehicles, mostly due to their large, heavy batteries, which can cost $10,000 each and are the most expensive component of the car. While the batteries' storage capacity is improving, their range is typically between 150 and 600 kilometres. In addition, the top speeds of electric cars are generally lower than those of fuel-powered vehicles. The useful life of batteries can be as short as three years. Fully charging batteries can take up to six hours, and charging outlets are less common than gas stations.

Elcar decided to compete at a lower price point and not offer a luxury model. Elcar's management believes it has an efficient design, which uses pre-manufactured brakes, steering and electric motors. Elcar has one model, a two-seat car called the "Vassy." The body design team has already created minor body variations for the next four model years, which will require minimal manufacturing changes. To keep production costs down, there is no customization available beyond the choice of colour.

Elcar sold its first Vassy in the middle of fiscal 2018 and had sold 164 cars by the fiscal year end. Sales have increased significantly in fiscal 2019. The typical Vassy buyer is a professional in their early 30s. The car is sporty in style but not in power or acceleration; its top speed is 110 kilometres per hour. The car's body design is patented and has won two design awards. The spring 2019 *Electrical Car Digest* magazine ranked the top 10 electric vehicles using 12 criteria, including style, charge time, speed, power, and range. The Vassy ranked sixth.


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## APPENDIX I – COMMON (continued)
## INFORMATION ABOUT ELCAR INC.

Elcar's head office and plant are rented for $10,000 per month. The plant has the capacity to produce 3,000 cars per year with one daily eight-hour shift. Parts and components are stored at the plant. Typically, parts are ordered to arrive one month before manufacture and are paid on "net 20-day" terms. Each car has a unique Vehicle Identification Number (VIN).

Elcar's processes use the latest technology. In addition to those in manufacturing, the company has 84 other employees—many of whom are scientists or technicians—whose average pay, including benefits, is $76,000 per annum.

Elcar owns a battery construction facility. It is expending a lot of effort to develop a new battery design, the G1 battery, which contains platinum. The battery will cost about $9,000 to produce. Platinum is a rare and precious metal whose price has fluctuated by 22% in the past year. Because it can be resold easily, it is susceptible to theft. Most batteries in the industry, including Elcar's current battery, are made with lithium, which costs less per battery than platinum. The goal is to have a working prototype of the G1 battery for road testing by the end of November 2019. The team is also working on the next version, the G2 battery. A comparison of the batteries is as follows:

| Battery Model | Range (km) | Charge Time (hours) |
|---|---|---|
| Current | 175 | 4.0 |
| G1 | 350 | 2.0 |
| G2 | 600 | 1.5 |

If development is successful, the new models could have other applications outside of cars. Once technical feasibility is confirmed, the team will investigate obtaining its first patent and start capitalizing development costs going forward.

Elcar sells its cars through a collaboration with 48 car dealers that also sell traditional, non-electric cars. The Vassy is currently not available for sale via the internet but the sales team plans to launch online sales in late fiscal 2020. The sales team is also exploring sales to Europe but currently only sells within Canada and the U.S. Elcar currently does not offer financing for its car sales. Elcar does not store any inventory regionally and all cars sold are shipped directly from its plant.


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## APPENDIX II – COMMON
## EXCERPTS FROM ELCAR DRAFT FINANCIAL STATEMENTS

*Elcar Inc.*
*Statement of Financial Position*
*As at May 31*

| | 2019 Draft | 2018 Audited |
|---|---|---|
| **Assets** | | |
| Cash and cash equivalents | $ 4,021,169 | $ 1,546,888 |
| Trade receivables | 98,752 | 76,415 |
| Inventory and work in progress | 3,416,985 | 2,665,248 |
| Prepaid expenses | 202,452 | 147,528 |
| | 7,739,358 | 4,436,079 |
| Property, plant and equipment, net | 1,076,044 | 1,007,772 |
| Investments | 40,000 | 0 |
| | $ 8,855,402 | $ 5,443,851 |
| **Liabilities** | | |
| Trade payables and other liabilities | $ 616,458 | $ 398,694 |
| Deposits | 276,455 | 304,255 |
| Due to parent company | 19,422 | 16,422 |
| | 912,335 | 719,371 |
| **Shareholder's equity** | | |
| Common shares | 15,284,736 | 9,357,372 |
| Deficit | (7,341,669) | (4,632,892) |
| | 7,943,067 | 4,724,480 |
| | $ 8,855,402 | $ 5,443,851 |


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## APPENDIX II – COMMON (continued)
## EXCERPTS FROM ELCAR DRAFT FINANCIAL STATEMENTS

*Elcar Inc.*
*Income Statement*
*For the year ended May 31*

| | 2019 | 2018 |
|---|---|---|
| | Draft | Audited |
| Revenues | $ 30,698,472 | $ 6,065,868 |
| Cost of sales | 18,541,877 | 3,657,718 |
| | 12,156,595 | 2,408,150 |
| General and administrative | 3,145,875 | 1,715,168 |
| Marketing and sales | 3,740,151 | 546,120 |
| Product development | 7,814,521 | 2,148,452 |
| Depreciation | 164,825 | 159,444 |
| | 14,865,372 | 4,569,184 |
| Net loss | $ (2,708,777) | $ (2,161,034) |


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## APPENDIX III – COMMON
## OTHER INFORMATION

### Platinum inventory

In January 2019, management and the research and development (R&D) department determined that they would like to complete the first phase of G1 battery testing by May 31, 2019. To do so, they planned to build 300 prototypes of the G1 battery, which would require 38,100 grams of platinum using the standard of 127 grams per battery. Using the standard price of $31.05 per gram, management budgeted $1,183,005. At that time, Elcar had no platinum inventory on hand.

As of May 31, 2019, the R&D department had built 270 battery prototypes, and had 2,000 grams of platinum in inventory. The amount was determined by an inventory count, which was performed by only one person. This was the first count performed on platinum since March.

Jeremy Scalia, from the R&D department, explained that the platinum is stored in a secure area of the facility but no one in the department has official responsibility for the safekeeping and counting of the platinum. Scientists from the R&D department have 24-hour access. The records indicate that there were three separate purchases of platinum between January and May 2019, as follows:

| | Quantity (grams) | Price (per gram) | Total Cost |
|---|---|---|---|
| March 1 | 9,425 | $ 32.00 | $ 301,600 |
| April 1 | 20,000 | $ 33.50 | $ 670,000 |
| May 1 | 8,675 | $ 35.50 | $ 307,963 |
| Total | 38,100 | | $ 1,279,563 |

In building the prototypes, the researchers said they must sometimes dispose of batteries that do not meet the company's quality standards. No records are kept of these disposed batteries.


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## APPENDIX III – COMMON (continued)
## OTHER INFORMATION

### K3Press contract

In November 2018, Elcar signed a contract to buy a total of 9,000 reduction gears, a large and heavy car component, over the next three years from K3Press, at what was then a favourable price of $185 per unit. The reduction gears are delivered on an as-needed basis. When the contract was signed, Elcar forecasted it would need over 3,000 reduction gears per year. Actual needs have lagged, with 1,100 having been delivered to date and 2,000 required for the 2020 fiscal year, after which time the reduction gears will probably no longer be needed. Elcar is considering cancelling the contract. Due to K3Press production plans, the cost of cancelling increases with time. Currently, the contract can be cancelled at a cost of $215,000. This increases to $245,000 on May 31, 2020, and to $275,000 on May 31, 2021, regardless of the volume delivered. K3Press is a well-regarded supplier in the industry and Elcar may need to do business with it again in the future.

The market price of reduction gears has dropped to $160 per unit. If Elcar resells the excess units, it will incur a 0.5% commission and $5,000 in advertising costs.

### Key measures report

The most recent report sent to NHC by Elcar is as follows.

**Elcar Inc.**
**Key Measures Report for the Month of April 2019**
**Sent June 11, 2019**

| | April 2019 | March 2019 |
|---|---|---|
| Number of vehicles ordered | 79 | 77 |
| Number of staff, excluding manufacturing staff | 84 | 83 |
| Grams of platinum purchased | 20,000 | 9,425 |
| Cash balance | $4,077,442 | $3,709,641 |
| Current ratio | 8.02 | 7.94 |
| Trade payable balance | $526,415 | $505,789 |

Shelagh wants to be able to determine whether Elcar's financial performance is improving. To help with future funding decisions, she is always interested in knowing its current and future cash usage. Shelagh also attempts to collect additional information, informally, on her calls with Robin, especially related to sales. Also, if she thinks of it, she asks about the development of the G1 battery.


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## APPENDIX III – COMMON (continued)
## OTHER INFORMATION

### Foreign currency transactions

Elcar's functional currency for accounting purposes is the Canadian dollar (CAD). On April 19, 2019, Elcar implemented a new accounts payable module in its integrated accounting system. A consultant helped configure the programs for the general ledger coding, internal control and foreign currency conversion. All invoices dated after April 19 were processed in the new module rather than in the old one. While the system has worked well overall, some glitches have had to be resolved since implementation.

The listing of the May 31, 2019, U.S. dollar (USD) trade payables, excluding the NHC intercompany account, is as follows.

| Invoice Date (YYYY-MM-DD) | Vendor | USD Amount | Recorded CAD Amount | Rate |
|---|---|---|---|---|
| 2019-04-10 | Electo Dool Inc. | $ 49,504.00 | $ 67,325.44 | 1.36 |
| 2019-04-11 | Mary & Walter | $ 26,965.00 | $ 36,672.40 | 1.36 |
| 2019-04-14 | Leitch Limited | $ 70,130.22 | $ 95,377.10 | 1.36 |
| 2019-04-18 | Old State Hoses Corp. | $ 20,000.00 | $ 27,200.00 | 1.36 |
| 2019-04-20 | Alabamah Specialty | $ 20,000.00 | $ 25,800.00 | 1.29 |
| 2019-04-30 | Leitch Limited | $ 43,640.68 | $ 56,296.48 | 1.29 |
| 2019-05-01 | 193032 Canada Inc. | $ 43,804.80 | $ 56,508.19 | 1.29 |
| 2019-05-02 | Sorspumps Ltée. | $ 72,100.00 | $ 93,009.00 | 1.29 |
| 2019-05-06 | Old State Hoses Corp. | $ 12,700.00 | $ 16,383.00 | 1.29 |
| 2019-05-14 | Advantage Selling | $ 24,705.88 | $ 31,870.59 | 1.29 |
| | | | $ 506,442.20 | |

The exchange rate at April 30, 2019, was $1 USD = $1.29 CAD, and at May 31, 2019, was $1 USD = $1.36 CAD. When the invoices are posted to accounts payable, the budgeted exchange rate for the month is used to record the related expense or asset.

At the beginning of the fiscal year, Elcar created an intercompany general ledger account for occasional transactions with NHC that are USD denominated. The intercompany transactions are accounted for at the budgeted exchange rate for the month, and subsequently the account balance is never adjusted, because the account balance eliminates on consolidation. The budgeted rate was $1 USD = $1.32 CAD for April and May 2019.


(CONTINUED ON PAGE 20)

## APPENDIX III – COMMON (continued)
## OTHER INFORMATION

### New marketing program

During the 2019 fiscal year, Elcar's marketing department started a new marketing program. When customers buy their vehicle at the current price, Elcar will upgrade their battery to the next generation, free of charge, once it is available. The full amount of the vehicle sales made under this program has been recorded as revenue.

### Battery construction facility

In January 2019, new environmental legislation was passed that requires companies with battery construction facilities to properly decommission those facilities at the end of their useful lives in order to remediate any environmental damage caused as a result of the building construction. Elcar has obtained a quote from a third party, who is willing to dismantle the battery construction facility and contents and clean up the site for $185,400 in today's dollars. The current and forecasted rate of inflation is 2%. The estimated remaining useful life of the facility is 15 years. As at May 31, 2019, no amount has been recognized related to decommissioning the facility.


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# ASSURANCE ROLE
# ADDITIONAL INFORMATION


(CONTINUED ON PAGE 23)

## APPENDIX IV
## ASSURANCE – ADDITIONAL INFORMATION

### Artwork

In March 2019, Elcar purchased a piece of artwork at an art auction for $200,000. The piece was created by Innes Blanche, whose work is displayed at the Museum of Modern Art in New York City. Robin is convinced this is an exceptional investment, since the artist's work has increased significantly in value (more than 40%) over the past year and art experts expect this to continue. In order to protect the artwork, it is kept in a temperature-controlled storeroom in the plant. Because Innes' artwork is in such high demand, Robin believes Elcar can sell the asset quickly; the artwork has therefore been recorded as a cash equivalent at cost on the statement of financial position.

### Updated cash flow forecast

In May 2019, management developed an updated cash flow forecast that indicates Elcar will have $10 million in cash in 12 months' time and that sales will be at 150 units per month by the end of the first quarter of fiscal year 2020.

Additional assumptions used in developing this forecast are as follows:

- The inflation rate is 2%.
- The exchange rate is $1 USD = $1.35 CAD.
- The price of platinum is $33.00 per gram.
- Labour costs will remain consistent, given that expected manufacturing efficiencies will offset the cost of the additional volume being manufactured.
- The G1 battery will achieve technical feasibility and be fully functional by November 2019.
- Elcar will have no capital expenditures in the next 12 months.
- Elcar's existing line of credit, which ends in February 2020, will be renewed.


(CONTINUED ON PAGE 24)

## APPENDIX IV (continued)
## ASSURANCE – ADDITIONAL INFORMATION

### Provincial government grant

In April 2019, Elcar received a grant from its provincial government for "Training of Staff Related to the Safe Disposal of Certain Wastes." It is the first recipient under this new program. After the first year, a CPA must sign off on an audit report confirming Elcar's compliance with the agreement.

The conditions of the grant are as follows:

1. The funds are to be deposited in a separate bank account or accounted for in a separate general ledger account in the books of the recipient.
2. No monies are to be spent for items related to this grant prior to actual receipt of the funds.
3. Until the funds are fully expended, the recipient is to maintain a minimum cash balance of $300,000.
4. The recipient must spend at least 15% of the funds during the company's fiscal year ended May 31, 2019.
5. The recipient is not to apply for any other funding from the provincial government before the earlier of: a) six months after the grant date; or b) full expenditure of the funds.
6. The recipient must comply at all times with applicable provincial labour laws.

### Website

The following "environmentally responsible actions" appear on Elcar's website:

1. Elcar is moving towards a paperless environment, with employees printing an average of less than five sheets of paper daily.
2. Elcar has an environmental impact committee, providing effective monitoring of corporate decisions for environmental responsibility.
3. Elcar is reducing waste and has hauled 10% less waste from the plant under its waste disposal contracts than in the prior fiscal year.
4. Elcar is focused on employee safety and no employees have filed Worker's Compensation claims for environmental-related injuries during the past fiscal year.
5. Elcar's plant property is not contaminated, as defined by the Provincial Contaminated Sites Act.
6. Elcar will reduce electricity usage per square foot by 20% by the year 2021 by implementing various measures.

### Payroll

Elcar uses an independent organization to carry out its payroll. Shelagh says she has some concerns over the validity of hours worked, because she has learned that a friend of the payroll processing clerk was paid for two months last year but was not actually an employee. The payroll clerk has since been terminated.


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# FINANCE ROLE
# ADDITIONAL INFORMATION


(CONTINUED ON PAGE 27)

## APPENDIX IV
## FINANCE – ADDITIONAL INFORMATION

The following forecast (excluding investments) has been prepared by Elcar and submitted to NHC as part of its funding request.

| **Forecast – year ending May 31** | **2020** | **2021** | **2022** | **2023** |
|---|---|---|---|---|
| **Units sold** | | | | |
| Current model | 1,200 | | | |
| G1 model | | 1,600 | 2,400 | |
| G2 model | | | | 2,900 |
| **Revenues** | | | | |
| Current model | $ 45,600,000 | $ 0 | $ 0 | $ 0 |
| G1 model | 0 | 68,800,000 | 103,200,000 | 0 |
| G2 model | 0 | 0 | 0 | 133,400,000 |
| | **45,600,000** | **68,800,000** | **103,200,000** | **133,400,000** |
| **Cost of sales** | | | | |
| Current model | 32,004,312 | 0 | 0 | 0 |
| G1 model | 0 | 45,072,416 | 67,608,624 | 0 |
| G2 model | 0 | 0 | 0 | 87,493,754 |
| | **32,004,312** | **45,072,416** | **67,608,624** | **87,493,754** |
| **Gross profit** | **13,595,688** | **23,727,584** | **35,591,376** | **45,906,246** |
| *Gross profit margin* | *29.8%* | *34.5%* | *34.5%* | *34.4%* |
| **Other expenses** | | | | |
| Selling (Note 1) | 880,119 | 1,239,491 | 1,859,237 | 2,406,078 |
| Shipping (Note 2) | 2,774,400 | 3,699,200 | 5,548,800 | 6,704,800 |
| Battery development costs | 4,161,000 | 4,161,000 | 4,161,000 | 4,161,000 |
| Payroll (non-manufacturing) | 6,748,800 | 8,098,560 | 9,718,272 | 11,661,926 |
| Marketing and sales | 1,431,375 | 3,864,713 | 4,830,891 | 8,212,515 |
| General and administrative | 2,184,000 | 2,839,200 | 3,690,960 | 4,798,248 |
| Amortization | 194,500 | 194,500 | 194,500 | 194,500 |
| | **18,374,194** | **24,096,664** | **30,003,660** | **38,139,067** |
| **Income (loss) before taxes** | **(4,778,506)** | **(369,080)** | **5,587,716** | **7,767,179** |
| **Income tax expense** | 0 | 0 | 0 | 232,620 |
| **Income (loss) after taxes** | **$ (4,778,506)** | **$ (369,080)** | **$ 5,587,716** | **$ 7,534,559** |

**Notes:**

1. Selling – Half of sales through dealers
2. Shipping – Average cost to date


(CONTINUED ON PAGE 28)

## APPENDIX IV (continued)
## FINANCE – ADDITIONAL INFORMATION

### Other information

Tax losses

Non-capital tax losses such as Elcar's have a fair market value of about five cents on the dollar. The following extract is from Schedule 4 of Elcar's T2 for the year ending May 31, 2019.

| Year of Origin | | |
|---|---|---|
| 2015-05-31 | $ | 467,852 |
| 2016-05-31 | $ | 824,131 |
| 2017-05-31 | $ | 1,274,542 |
| 2018-05-31 | $ | 2,101,222 |
| | $ | 4,667,747 |

Working capital

Cost of sales is assumed to be paid in the year the costs are incurred. Going forward, management plans to maintain an inventory level (including finished goods, parts and work in progress) of 10% of the following year's forecasted cost of sales. Other balances within working capital are considered suitable for Elcar's existing and forecast operations.

Industry growth

Given the pace of change in the industry and growth in the number of competitors, average growth beyond 2023 is expected to be 2%.


(CONTINUED ON PAGE 29)

## APPENDIX IV (continued)
## FINANCE – ADDITIONAL INFORMATION

**Extracts from provincial grant offer**

*(DRAFT FOR DISCUSSION)*

The Minister is pleased to offer a provincial grant to Elcar Inc. (the Company) of $1,000,000 to fund Eligible Costs to develop "advanced battery technology" as defined in this agreement, under the following terms:

- Fifty percent (50%) of the grant is non-repayable if the Company complies with all conditions of the agreement (see below).
- Fifty percent (50%) of the grant is repayable in one payment four years after the grant date, and commences bearing interest one year after the grant date.
- The annual interest rate is calculated at the provincial government's average borrowing rate plus 3%, and is paid on an annual basis, beginning two years after the grant date.

The grant is subject to the following conditions:

1. A majority of the outstanding voting shares cannot be sold, in a single or a series of transactions, during the period of the grant, to a foreign company, without prior approval of the Minister.
2. The grant may be revoked if the Company at any time violates Section 42 or 43 of the *Public and Corporate Assistance Act.*
3. Eligible Costs must be incurred inside a circle with a radius drawn 58 km from the Company's plant.
4. Only salaries of employees with a home address inside the above designated circle are considered Eligible Costs.
5. A Canadian CPA must issue an annual audit report on Eligible Costs, with a materiality of $1,000. The cost of the report must be borne by the Company.
6. Should the Company fail to repay the repayable portion of the grant when due, the Minister reserves the right to seize the assets of the Company or take an equity position in the Company, equal to the unpaid amount.
7. Instead of repayment, the Minister may, at his/her discretion, claim a 10% ownership interest in the Company's common shares, obtained through the issuance of new shares.


(CONTINUED ON PAGE 30)

## APPENDIX IV (continued)
## FINANCE – ADDITIONAL INFORMATION

**Battery testing device purchase**

The production manager wants to purchase a new battery testing device. It is new in the market and is not fully proven, but has a good warranty and is expected to last 10 years. It is manufactured in the U.S. but can be purchased from a nearby distributor. The cost is U.S. $350,000 plus CAD $5,600 freight-in and a CAD $12,500 technical set-up and training charge.

The new machine would eliminate a stressful and time-consuming manual process. Currently, each test requires an employee to spend 2.1 hours on assembly and 0.4 hours on inspection, as well as approximately $75 worth of chemicals, the price of which fluctuates significantly. The employee rate, with benefits, is $32.04 per hour. Approximately 1,200 tests occur each year.

The new machine also eliminates some environmentally negative emissions released by the chemicals. Laws concerning these emissions are expected to be enacted within three years.

To maintain the warranty, the manufacturer requires a mandatory annual service contract of CAD $5,000 with an approved service contractor. Preliminary estimates of additional electricity costs are $200 per month.

NHC requires all capital investment by Elcar to be evaluated against its desired return on investment of 25%.

**Platinum**

Elcar has been approached by a company operating a very small platinum mine in South Africa, who heard Elcar plans to increase its platinum purchases. The company is willing to sell the mine to Elcar but has not yet disclosed its asking price.

Platinum futures and platinum options are readily available in the commodity markets.


(CONTINUED ON PAGE 31)

## APPENDIX IV (continued)
## FINANCE – ADDITIONAL INFORMATION

### Elcar property, plant and equipment

As a result of discussions about possible asset-based financing by a third party—which did not occur—all of Elcar's property, plant and equipment was appraised, as follows.

**Elcar Inc.**
**Replacement Cost at April 2, 2019**

| | |
|---|---|
| Office computers and equipment | $ 37,000 |
| Manufacturing equipment | 260,000 |
| R&D equipment | 280,000 |
| Battery construction facility | 440,000 |
| | $ 1,017,000 |

On average, Elcar's equipment purchases are $8,000 per month.

### Investments

Elcar owns 10% of Barkser Limited Partnership (Barkser), for which it paid $40,000. Barkser is developing short-term storage of wind energy for use on non-windy days. The capital raised by Barkser was spent on R&D and there are no intercompany transactions with Elcar. A week ago, Barkser announced that it had significantly progressed on its R&D. As a result, Elcar received an unsolicited offer of $280,000 for its 10% stake in Barkser, but turned it down.


(CONTINUED ON PAGE 32)

# PERFORMANCE MANAGEMENT ROLE
# ADDITIONAL INFORMATION


(CONTINUED ON PAGE 33)

## APPENDIX IV
## PERFORMANCE MANAGEMENT – ADDITIONAL INFORMATION

### Elcar's Proposal presented to NHC for initial funding (2016)

The request is for $8 million for the fiscal 2017 to 2019 period.

With the support of NHC's investment, we expect to start selling our own electric family sedan by the end of September 2017. Sales are forecast to be 1,678 units in the first two years and 5,000 in the next two years. At a sales price of $36,400 and a cost to produce of 65%, we expect to earn a 35% gross profit on each vehicle, as presented in our forecast.

We have hired a team of young designers with the aim of winning an industry design award for the aesthetics of the vehicle. Staff numbers will increase slightly during fiscal 2018 and 2019, reaching 64 people, outside of manufacturing, and will remain constant for the following two years.

The car will be sold via the internet and an independent dealer network that will reach at least 100 metropolitan areas by the end of fiscal 2019. European sales are expected to be 20% of total sales.

The development of the battery technology will advance quickly with targeted product development. It should produce a range of 200 kilometres before the end of fiscal 2020, and the hours to charge per kilometer-of-range ratio will be less than 0.002. Our technology will be covered by four patents by the end of fiscal 2019, and we will apply immediately for a patent on our new battery acid.

So we can vacate our rented facility, we expect to purchase a manufacturing plant of about 30,000 square feet within six months, for $2.4 to $2.6 million.

To expand the business more rapidly, we plan to partner with a major industry player for our sales, manufacturing or battery development.

Extracts from the four-year forecast provided are as follows:

| | Note | 2017 | 2018 | 2019 | 2020 | Totals |
|---|---|---|---|---|---|---|
| Units sold | | 278 | 1,400 | 2,000 | 3,000 | 6,678 |
| Revenues | 1 | $10,119,200 | $50,960,000 | $74,800,000 | $112,200,000 | $248,079,200 |
| Income (loss) after taxes | | ($4,921,672) | $760,527 | $3,966,558 | $8,274,589 | $8,080,002 |

Note 1: Unit price for 2017 and 2018 is estimated to be $36,400 and to increase to $37,400 for 2019 and 2020.


(CONTINUED ON PAGE 34)

## APPENDIX IV (continued)
## PERFORMANCE MANAGEMENT – ADDITIONAL INFORMATION

### Elcar – 2019 cash flow forecast

The following is Elcar's cash flow projection for the next six months of 2019.

| | Note | June | July | August | Sept. | Oct. | Nov. |
|---|---|---|---|---|---|---|---|
| Opening cash | | $4,021,000 | $3,636,000 | $3,719,000 | $3,802,000 | $3,885,000 | $3,968,000 |
| Cash sales | 1 | 3,640,000 | 4,368,000 | 4,368,000 | 4,368,000 | 4,368,000 | 4,368,000 |
| Direct materials | 2 | 1,750,000 | 1,750,000 | 1,750,000 | 1,750,000 | 1,750,000 | 1,750,000 |
| Direct labour | 3 | 141,200 | 169,440 | 169,440 | 169,440 | 169,440 | 169,440 |
| Variable overhead | 4 | 458,800 | 460,560 | 460,560 | 460,560 | 460,560 | 460,560 |
| Admin. salaries | 5 | 475,000 | 525,000 | 525,000 | 525,000 | 525,000 | 525,000 |
| Leases | 6 | 250,000 | 360,000 | 360,000 | 360,000 | 360,000 | 360,000 |
| R&D | 7 | 700,000 | 770,000 | 770,000 | 770,000 | 770,000 | 770,000 |
| Utilities | 8 | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 |
| | | 4,025,000 | 4,285,000 | 4,285,000 | 4,285,000 | 4,285,000 | 4,285,000 |
| Operating cash flow | | (385,000) | 83,000 | 83,000 | 83,000 | 83,000 | 83,000 |
| Closing cash | | $3,636,000 | $3,719,000 | $3,802,000 | $3,885,000 | $3,968,000 | $4,051,000 |

**Notes:**

1. Based on forecasted selling price of $36,400.
2. Based on the monthly average of direct materials purchased.
3. Based on the assumption that the cost varies with the number of employees who are paid hourly, as well as on the assumption of an annual cost of living increase of 5% commencing on November 1, 2019.
4. Variable overhead costs are based on May 31, 2018, fiscal year actuals.
5. Based on salaries for non-manufacturing staff.
6. Increase due to equipment rented for R&D work to complete testing of the G1 and G2 batteries.
7. R&D has requested additional expenditures to complete testing of the G1 and G2 batteries.
8. 90% of the utilities cost is to power the manufacturing equipment.


(CONTINUED ON PAGE 35)

## APPENDIX IV (continued)
## PERFORMANCE MANAGEMENT – ADDITIONAL INFORMATION

### Budget

During Shelagh's illness, no one from NHC contacted Robin. Shelagh commented, "When I returned, I was surprised to learn that the 2019 budget, which was originally approved by me, was changed by Robin without approval, that Elcar had obtained a line of credit when we could have borrowed at a lower rate and advanced it to Elcar, and that Robin did not obtain our approval for the December 2018 executive bonuses."

### Paying employees by piecework

The majority of assembly line workers in the auto industry in Canada are unionized, demand high wages and strike from time to time. To date, Elcar's workers have not unionized. The VP, Manufacturing, Bill Smith, has come up with a plan to pay the car assembly workers via piecework (per car). Early discussions with the workers indicate that they are quite interested. The standard labour cost per vehicle and battery is currently $1,412, but employees' productivity varies. It takes from 27 to 32 hours to build the car and an estimated 14 to 18 hours to build the battery. The manufacturing employees' hourly rate is $32.04, including benefits and other payroll costs. In addition to the motivation it will naturally provide, it is likely that the workers will be more autonomous, eliminating the need for the two shift supervisors. The supervisors are currently paid a salary of $80,000 each. However, quality and safety may become greater concerns. Bill wonders if there will be complications setting the piecework rate. The preliminary rate being considered is $1,600 per car.


(CONTINUED ON PAGE 36)

## APPENDIX IV (continued)
## PERFORMANCE MANAGEMENT – ADDITIONAL INFORMATION

### Electric bicycle proposal

An Elcar employee, Fritz Smid, is proposing developing and selling an electric bicycle.

Fritz admits that the electric bicycle market is crowded but is growing rapidly. He obtained a letter of intent from a friend in Taiwan who is a bicycle distributor, for an order of 300 electric bicycles.

The letter of intent states that the order will be placed if an electric bicycle prototype can be produced that:

- can be charged using Taiwan's electrical system
- has a range of 80 kilometres at a continuous speed of 15 km per hour
- weighs less than 26 kg, including the battery
- has a battery that can be charged in less than two hours
- has an asking price of no more than $1,140

Fritz has built four prototypes that work well, at a total cost of $50,600. He has two options for the frame. One is for the supplier to manufacture an externally designed, heavy-duty bike frame that would cost $464. The second option is for the supplier to manufacture a frame that would be internally designed by Elcar, and would cost an estimated $390. The battery would cost $195 and the motor and other components would total $87. If annual orders exceed 3,000 units, volume discounts would result in cost reductions. Assembly labour is estimated at $49 for the externally-designed frame and $44 for the internally-designed frame.

There would be annual operating fixed costs, including the full payroll cost of $97,525 for Fritz, $84,250 for a marketing manager and $39,422 for a clerk to do sales and administration. Fritz estimates an annual advertising and internet budget of $75,000, equipment rental of $15,210 and rent of $14,000 for the additional manufacturing space in the existing plant. The cost accountant said an allocation of $29,400 of factory overhead would be charged to the bicycle business.


(CONTINUED ON PAGE 37)

## APPENDIX IV (continued)
## PERFORMANCE MANAGEMENT – ADDITIONAL INFORMATION

### Performance indicators

Elcar's workforce is divided into four groups, with their primary responsibilities as follows:

- R&D: Ongoing development of new products and innovation
- Manufacturing: Production of products and maintenance of building and equipment
- Design: Design of a desirable car
- Sales: Marketing the cars via the dealer network and online sales

Currently, Elcar uses 360-degree feedback as the performance measurement system for all employees' annual performance reviews. This technique involves an evaluation being performed by the person's superiors, the person's peers and by the people reporting to the person being evaluated. Each employee asks six other employees or managers to complete their survey. The survey contains two areas for comments: one for employee strengths and one for employee weaknesses. The employee's performance is measured solely on the average score obtained from the "1 to 10" ratings provided. Many employees have said the feedback is vague, confusing and almost entirely negative. Others have said the feedback is more about their popularity than about how well they do their job.

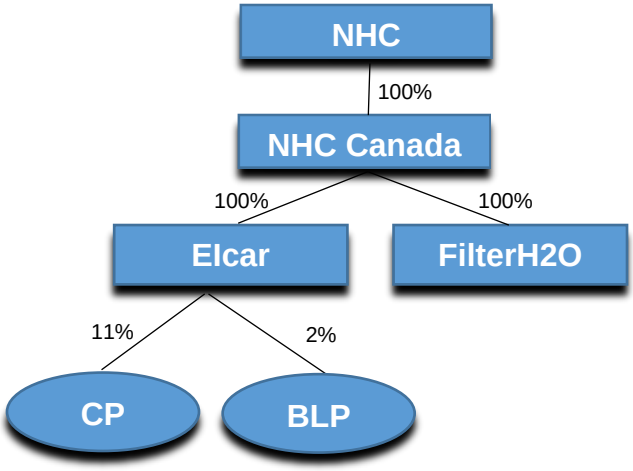

(CONTINUED ON PAGE 38)

# TAXATION ROLE
# ADDITIONAL INFORMATION


(CONTINUED ON PAGE 39)

## APPENDIX IV
## TAXATION – ADDITIONAL INFORMATION

### Corporate structure




Martin Blanc and NHC are resident in the United States for tax purposes. NHC Canada is resident in Canada for tax purposes and is profitable. Most Canadian oversight staff, including the Canadian members of the investigation team, are employed by NHC Canada.

In addition to Elcar, NHC has another Canadian subsidiary. FilterH2O Corporation is a profitable company that sells water treatment systems. Its taxable income last year was $1,323,893, and it has a May 31 fiscal year end. It is expected to earn similar income in future years.

### Partnership investments

During the fiscal year, Elcar acquired units in two unrelated partnerships described below, which are correctly recorded for financial accounting purposes at fair value through profit and loss. As the fair value of the units has not changed, Elcar has correctly not recorded any accounting entry for gains or losses.

On June 1, 2018, Elcar purchased units representing an 11% interest in a general partnership called Cara Partnership (CP), for $10,000. CP has a December 31 fiscal year end, and for its year ended December 31, 2018, Elcar's share of CP's net income for tax purposes was $25,000.

On January 16, 2019, Elcar purchased units representing a 2% interest in a limited partnership called Barkser LP (BLP), for $30,000. BLP previously had no income for tax purposes but Elcar's share of the business losses for BLP's fiscal year end of May 31, 2019, was $59,425.


(CONTINUED ON PAGE 40)

## APPENDIX IV (continued)
## TAXATION – ADDITIONAL INFORMATION

### Corporate income tax return

The following extract is from Schedule 4 of Elcar's T2 for the year ending May 31, 2018.

Schedule 4
Part 6 – Analysis of balance of losses by year of origin

| Year of origin | Non-capital losses |
|---|---|
| 2015-05-31 | $ 467,852 |
| 2016-05-31 | $ 824,131 |
| 2017-05-31 | $ 1,274,542 |
| 2018-05-31 | $ 2,101,222 |
| | $ 4,667,747 |

### CEO compensation

Under a new policy at Elcar, Robin can take $100,000 in remuneration above his base salary for 2019, in the following forms:

- a cash bonus
- an $8,333 per month car allowance
- the use of a $38,000 Vassy
- an RRSP contribution
- a payment directed to his spouse

As they are not mutually exclusive, Robin can take the $100,000 using any combination of the options.

### Scientist (Amber Lantic)

Amber is single with no dependents, has a rented apartment and drives a Vassy that she personally purchased. She is a Canadian citizen and owns a piece of land in Canada on which she hopes to build a home for herself one day. Other than her RRSP and bank accounts, she has no assets. Amber plans to leave Canada in late 2019 and live in Grenada for a few years. Grenada has lower personal income tax rates than Canada. Amber will not be covered by the province's health plan while away. If it means saving on her income taxes, she is willing to rearrange some of her affairs. Amber will remain employed by Elcar during this temporary assignment.


(CONTINUED ON PAGE 41)

## APPENDIX IV (continued)
## TAXATION – ADDITIONAL INFORMATION

### Jitcoin

Because Robin is convinced that cryptocurrency will continue to appreciate and become a more common medium of exchange, Elcar purchased one Jitcoin for $152,808, and recorded it under cash in the draft May 31, 2019, financial statements. At May 31, 2019, one Jitcoin's quoted market price was $174,708, and there has been no accounting for this change.

### Other information

Elcar is working on patenting its first invention, called "A Method to Arcate Platinum." Elcar spent $21,000 on the patent legal fees in the 2019 fiscal year and Sam is wondering how these will be treated for tax purposes.

Elcar made an $8,000 donation to Manchester Hospital, which is a charity in the United Kingdom, in memory of Robin's mother. Sam hopes it is acceptable as a deduction from Elcar's income.

Recognizing that she is very critical to the company, Elcar has purchased key person life insurance costing $12,543 per year on the life of the company's chief technology officer.

Capital cost allowance for the May 31, 2019 taxation year is estimated to be $157,000.


(CONTINUED ON PAGE 42)

## APPENDIX IV (continued)
## TAXATION – ADDITIONAL INFORMATION

### Tax planning ideas

The following tax planning ideas have been suggested to Robin in recent months.

CCPC status

In order to be eligible for lower tax rates and many other tax advantages, Sam's friend suggested turning the company into a Canadian-controlled private corporation (CCPC). He says that, if NHC Canada sold all of its common shares of Elcar to a CCPC or a Canadian resident individual on the day before year end, Elcar would qualify as a CCPC for that taxation year. In order not to lose control of Elcar, NHC Canada would have a written agreement providing the right to repurchase the shares the day after year end, which would be exercised. There would also be an agreement that no changes would be made to the company during the two days it is not owned by NHC Canada. He said this model can be repeated at each successive year end, to perpetually qualify as a CCPC.

SR&ED

The head of quality control (QC) at Elcar read a bit about scientific research and experimental development (SR&ED) tax credits and has come up with an idea that allows the salaries and costs of the QC department at Elcar to be claimed as SR&ED expenditures.

The department is responsible for the following:

- examining vehicle components to ensure they meet specifications before manufacturing
- verifying the quality of third-party testing on battery prototypes
- assisting with experiments on batteries' output and amperage
- ensuring the quality of vehicles manufactured prior to shipment to customers

The head of QC says that, if the department is renamed "R&D Quality Control" and maintains full documentation of all activities, and if staff wear white lab coats for the benefit of any Canada Revenue Agency technical or financial auditors that might show up, all the costs should be claimable as SR&ED expenditures, and should result in a large amount of refundable tax credits for Elcar.


(CONTINUED ON PAGE 43)

**End of Exam**


(CONTINUED ON PAGE 44)

## CPA COMMON FINAL EXAMINATION REFERENCE SCHEDULE

### 1. PRESENT VALUE OF TAX SHIELD FOR AMORTIZABLE ASSETS

Present value of total tax shield from CCA for a new asset acquired before November 21, 2018

$$= \frac{CTd}{(d+k)}\left(\frac{2+k}{2(1+k)}\right) = \frac{CdT}{(d+k)}\left(\frac{1+0.5k}{1+k}\right)$$

Present value of total tax shield from CCA for a new asset acquired after November 20, 2018

$$= \frac{CdT}{(d+k)}\left(\frac{1+1.5k}{1+k}\right)$$

**Notation for above formula:**
*C* = net initial investment
*T* = corporate tax rate
*k* = discount rate or time value of money
*d* = maximum rate of capital cost allowance

### 2. SELECTED PRESCRIBED AUTOMOBILE AMOUNTS

| | **2018** | **2019** |
|---|---|---|
| Maximum depreciable cost — Class 10.1 | $30,000 + sales tax | $30,000 + sales tax |
| Maximum monthly deductible lease cost | $800 + sales tax | $800 + sales tax |
| Maximum monthly deductible interest cost | $300 | $300 |
| Operating cost benefit — employee | 26¢ per km of personal use | 28¢ per km of personal use |
| Non-taxable automobile allowance rates | | |
| — first 5,000 kilometres | 55¢ per km | 58¢ per km |
| — balance | 49¢ per km | 52¢ per km |


(CONTINUED ON PAGE 45)

## 3. INDIVIDUAL FEDERAL INCOME TAX RATES

### For 2018

| If taxable income is between | | | Tax on base amount | Tax on excess |
|---|---|---|---|---|
| $0 | and | $46,605 | $0 | 15% |
| $46,606 | and | $93,208 | $6,991 | 20.5% |
| $93,209 | and | $144,489 | $16,544 | 26% |
| $144,490 | and | $205,842 | $29,877 | 29% |
| $205,843 | and | any amount | $47,670 | 33% |

### For 2019

| If taxable income is between | | | Tax on base amount | Tax on excess |
|---|---|---|---|---|
| $0 | and | $47,630 | $0 | 15% |
| $47,631 | and | $95,259 | $7,145 | 20.5% |
| $95,260 | and | $147,667 | $16,908 | 26% |
| $147,668 | and | $210,371 | $30,534 | 29% |
| $210,372 | and | any amount | $48,718 | 33% |

## 4. SELECTED INDEXED AMOUNTS FOR PURPOSES OF COMPUTING INCOME TAX

Personal tax credits are a maximum of 15% of the following amounts:

| | **2018** | **2019** |
|---|---|---|
| Basic personal amount | $11,809 | $12,069 |
| Spouse, common-law partner, or eligible dependant amount | 11,809 | 12,069 |
| Age amount if 65 or over in the year | 7,333 | 7,494 |
| Net income threshold for age amount | 36,976 | 37,790 |
| Canada employment amount | 1,195 | 1,222 |
| Disability amount | 8,235 | 8,416 |
| Canada caregiver amount for children under age 18 | 2,182 | 2,230 |
| Canada caregiver amount for other infirm dependants age 18 or older (maximum amount) | 6,986 | 7,140 |
| Net income threshold for Canada caregiver amount | 16,405 | 16,766 |
| Adoption expense credit limit | 15,905 | 16,255 |

Other indexed amounts are as follows:

| | **2018** | **2019** |
|---|---|---|
| Medical expense tax credit — 3% of net income ceiling | $2,302 | $2,352 |
| Annual TFSA dollar limit | 5,500 | 6,000 |
| RRSP dollar limit | 26,230 | 26,500 |
| Lifetime capital gains exemption on qualified small business corporation shares | 848,252 | 866,912 |


(CONCLUDED ON PAGE 46)

## 5. PRESCRIBED INTEREST RATES (base rates)

| Year | Jan. 1 – Mar. 31 | Apr. 1 – June 30 | July 1 – Sep. 30 | Oct. 1 – Dec. 31 |
|---|---|---|---|---|
| 2019 | 2 | 2 | 2 | |
| 2018 | 1 | 2 | 2 | 2 |
| 2017 | 1 | 1 | 1 | 1 |

This is the rate used for taxable benefits for employees and shareholders, low-interest loans, and other related-party transactions. The rate is 4 percentage points higher for late or deficient income tax payments and unremitted withholdings. The rate is 2 percentage points higher for tax refunds to taxpayers, with the exception of corporations, for which the base rate is used.

## 6. MAXIMUM CAPITAL COST ALLOWANCE RATES FOR SELECTED CLASSES

| | | |
|---|---|---|
| Class 1……. | 4% | for all buildings except those below |
| Class 1……. | 6% | for buildings acquired for first use after March 18, 2007 and ⩾ 90% of the square footage is used for non-residential activities |
| Class 1……. | 10% | for buildings acquired for first use after March 18, 2007 and ⩾ 90% of the square footage is used for manufacturing and processing activities |
| Class 8……. | 20% | |
| Class 10…….. | 30% | |
| Class 10.1……... | 30% | |
| Class 12…….. | 100% | |
| Class 13…….. | Original lease period plus one renewal period (minimum 5 years and maximum 40 years) | |
| Class 14…….. | Length of life of property | |
| Class 14.1……... | 5% | For property acquired after December 31, 2016 |
| Class 17…….. | 8% | |
| Class 29…….. | 50% | Straight-line |
| Class 43…….. | 30% | |
| Class 44…….. | 25% | |
| Class 45…….. | 45% | |
| Class 50…….. | 55% | |
| Class 53…….. | 50% | |

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