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CHOA

Guidance for the Preparation of Electrical Planning Reports for Strata Corporations in British Columbia

UPDATED MAY 2026

The information in this guide is provided for the user's convenience as an aid to preparing electrical planning reports for strata corporations and in recognition of the increasing demand for electricity. In British Columbia (B.C.), strata corporations with five or more strata lots are required by law to obtain electrical planning reports.

This guide provides some general information and guidance. Given the large variety of strata corporations that include complicated variations of commercial strata (identified as non-residential), mixed use commercial and residential, industrial, multiple corporation and property joint use and air space parcels; these guidelines may not be applicable for every strata corporation.

The guide is not intended as interpretive legal or technical advice.

ACKNOWLEDGEMENTS

This project was funded by BC Hydro, and supported by the Condominium Home Owners Association of BC (CHOA), the Province of BC through the BC Ministry of Housing and Municipal Affairs, and the Vancouver Island Strata Owners Association (VISOA). Developed and updated by FRESCO Building Efficiency with input from Dunsky Energy & Climate Advisors, the Zero Emissions Innovation Centre, and other stakeholders.

Summary of 2026 Updates

This guidance document has been updated to improve clarity, consistency, and alignment with the Strata Property Act and Regulations and to provide clearer direction for service providers on how EPRs should support long-term electrical capacity planning for strata corporations. Key updates and clarifications include:

- ***Clarified scope, intent, and limitations of an EPR**, reinforcing that an EPR is a high-level planning tool and is not intended to provide detailed, code-compliant electrical or mechanical design.*
- ***Clearer delineation of mandatory versus optional content**, including requirements to clearly distinguish minimum EPR content and its associated costs from any additional analyses, services, or bundled offerings proposed by the EPR provider.*
- ***Expanded the list of qualified professionals for Part 3 Buildings,** to include professional licensees (engineering) and certified technicians as per the revisions made to the legislation in October of 2025.*
- ***Additional details on what should be included in the EPR report.***
- ***Expanded guidance on what electrical utility data to request, how to request it, and how to use it**, appropriately for planning-level electrical capacity estimates.*
- ***Expanded guidance and clarity for EPR providers on estimating electrical system capacity, peak demand, and spare capacity**, including acceptable, and recommended, methodologies. This provides the strata with information on what existing capacity they have for additional electrical loads.*
- ***Enhanced direction on identifying and calculating the capacity required for anticipated future electrical demands**, including clarification on properly sizing new electrical loads, to avoid overestimation of future electrical capacity or unnecessary electrical service upgrades.*
- ***Clarification that EPR providers must assess future loads even where strata corporations have not yet established clear priorities,** using reasonable, documented planning assumptions.*
- ***Additional guidance on using power-efficient design and demand-management assumptions** when estimating future electrical capacity needs, including, but not limited to, using high-efficiency heat pump systems, hybrid system solutions, or energy management systems.*
- ***Additional clarification of best-practice reporting principles**, including transparent documentation of assumptions, consistent presentation across narrative and tables, and the use of plain-language summaries to support long-term use and interpretation by strata councils.*
- ***New clarification regarding local government and authority having jurisdiction (AHJ) considerations** that may arise at the time of installation of new electrical loads. This is outside of the scope of an EPR but may still be useful to EPR providers.*
- ***Emphasis that this document provides guidance only**, and that EPR providers must apply professional judgment when selecting methodologies, assumptions, and inputs, including (where applicable) approaches to estimating electrical capacity, peak demand, future loads, demand-management strategies, equipment efficiency assumptions and safety factors.*

Contents

1. Introduction

1.1 Purpose of the Guide

This guide is intended primarily for Electrical Planning Report (EPR) service providers. It defines the purpose, scope, and limitations of EPRs and provides practical guidance to support the consistent preparation of EPRs that meet the requirements of the *Strata Property Act* and *Strata Property Regulation*. The guide is designed to help providers deliver compliant EPRs efficiently and cost-effectively, while clearly distinguishing EPRs from detailed design, engineering, or implementation services.

Although this guide is written for practitioners, it may also be useful to strata councils and strata owners to better understand an EPR's purpose and limits.

1.2 Definitions and Abbreviations

Table 1: Definitions and Abbreviations

ABBREVIATION / TERM	EXPANDED TERM / DESCRIPTION
Air Space Parcel	*An air space parcel is a three-dimensionally surveyed and titled unit of land defined by both horizontal area and upper and lower elevation limits, with no necessary connection to the ground. In the context of electrical planning, air space parcel strata lots are relevant where multiple ownership regimes occupy a single building envelope, as each parcel or strata corporation may require separate utility servicing, metering, and clearly attributed electrical infrastructure.*
Brownouts	*A temporary weakening of electrical devices caused by a reduction in the power supply caused by excessive demand. Brownouts can occur during peak load demand and should be avoided.*
CEC	*Canadian Electrical Code.*
COP	*Coefficient of Performance.*
CRF	*Contingency reserve fund.*
DHW	*Domestic hot water.*

ABBREVIATION / TERM	EXPANDED TERM / DESCRIPTION
EGBC	*Engineers and Geoscientists of British Columbia.*
Electrification	*The process of converting an energy-consuming device or system from non-electric sources of energy to electricity.*
EPR	*Electrical Planning Report.*
EV	*Electric vehicle.*
EV Ready Report	*A report which outlines a strategy that would provide a minimum of one EV-ready parking space per residential unit.*
Load Management System	*A technology that actively controls electricity consumption by adjusting or shifting electrical loads within a network, aiming to balance the power supply with demand by regulating when and how much electricity devices use, typically done to reduce peak demand during high usage times.*
Make-Up Air Unit	*Helps maintain balanced airflow in the building, making up the air that gets exhausted from kitchen, bathroom and dryer exhaust systems. The make-up air unit is generally located at the top of a building, either in a mechanical room or on the roof. These systems are mandatory where an elevator has direct access to a parking garage to prevent chimneying of exhaust and smoke into occupied spaces.*
OIC	*An Order in Council is a legal instrument used by governments to pass regulations and make some appointments.*
Peak Demand	*The highest instantaneous power consumption in kilowatts (kW), calculated from hourly kilowatt-hour (kWh) data, or from measured demand metering data, with a safety factor to allow for variation in peaks over the sampling period.*
TSBC	*Technical Safety BC. Technical Safety BC is an independent, self-funded organization mandated by the British Columbia government to oversee the safe installation and operation of technical systems and equipment.*

2. Understanding Electrical Planning Reports

EPRs help strata corporations manage increasing demands for electricity including electric vehicle charging or installing heat pump systems for space heating and cooling or adding other new electrical loads.

2.1 Electrical Planning Reports - Deadlines and Exemptions

Strata corporations with five or more strata lots are required to obtain an EPR by the following dates:

- By December 31, 2026, for strata corporations located in:
  - The Metro Vancouver Regional District (excluding islands which are only accessible by air or boat such as Bowen Island).
  - The Fraser Valley Regional District.
  - The Capital Regional District, CRD (excluding islands that are only accessible by air or boat such as the Southern Gulf Islands).
- By December 31, 2028, for strata corporations located in other areas of British Columbia (including the Southern Gulf Islands and Bowen Island).
- New strata corporations will have five years from the deposit of the strata plan to obtain an EPR, although they may choose to commission a report earlier to understand their electrical planning and management.

Phased strata corporations have some specific timelines as set out in the Strata Property Regulation, 5.9.2.2 Purpose of Electrical Planning Reports.

3. Who is a Qualified Person?

Only designated B.C. professionals can complete an electrical planning report (EPR) for a strata corporation. Effective October 27, 2025, the list of designated professionals has been expanded to include professional licensees (engineering) and certified technicians in addition to engineers, applied science technologists and a journeyperson electrician.

The following professionals can complete an EPR for Part 3 or Part 9 buildings:

(i) the person is registered with the Association of Professional Engineers and Geoscientists of the Province of British Columbia as a professional engineer or professional licensees (engineering).

(ii) the person is registered with the Applied Science Technologists and Technicians of British Columbia as an applied science technologist or certified technician.

The following professional can complete an EPR for Part 9 buildings only:

(iii) the person is a journeyperson, as that term is defined in the Skilled Trades BC Act, in the construction electrician or industrial electrician trade.

COMPARISON OF PART 3 AND PART 9 BUILDINGS

- **Part 3 Buildings:** Design criteria for larger, more complex buildings are found in Part 3 of the BC Building Code. Part 3 buildings can be any height or building area and may include, for example, condo towers and mid-rise apartment blocks. Generally, Part 3 buildings are more than three stories in height or have a building area exceeding 600 square meters.

- **Part 9 Buildings**: Design criteria for housing and small buildings can be found in Part 9 of the BC Building Code. Part 9 buildings are not more than 3 storeys and not larger than 600 square meters in building area. Part 9 buildings can include, for example, single-family homes and small buildings.

4. Guidelines for Producing an EPR

This section provides guidelines to help cost-effectively produce an EPR and meet the requirements for an EPR as set out in the Strata Property Act and Strata Property Regulation. Some local governments, like the City of Vancouver, may also have requirements for electrical planning, such as the New Electrical Load Installation (NELI) form (see Appendix E).

There is no requirement to use the resources provided in this document; they are provided as general guidance to help support EPR providers. The EPR provider is responsible for producing an EPR that meets the legal requirements of the Strata Property Act and Regulations and meets any additional requirements of a strata corporation.

In addition to the guidelines provided in this document, EPR providers should note that:

- **Permanent Record:** The EPR is a permanent record of the strata corporation and will be referred to over many years by strata councils, strata owners and prospective purchasers. The EPR must be disclosed and attached to a Form B: Information Certificate, if requested by a prospective purchaser.
    - However, the EPR represents electrical capacity conditions at the time the report is prepared. Electrical capacity, loading, and available spare capacity may change over time due to electrification activities, system upgrades, changes in usage patterns, or other building modifications. EPR providers should clearly highlight these limitations.
- **Personal Information:** The EPR is an accessible record of a strata corporation. It should not include personal information (names, contact information or unit-specific information) of strata council members or owners (as members are elected annually).
- **Bundling Services, Separation of EPR Content and Associated Costs:** In some cases, EPR providers may be able to achieve efficiencies by leveraging site visits, data collection, or high-level analyses undertaken for an EPR to support other related services, for example, the preparation of an EV Ready Plan. Where appropriate, these efficiencies may allow EPR providers to offer cost savings when multiple services are completed concurrently. However, any services or deliverables provided in addition to the mandatory minimum requirements of an EPR are not part of the EPR**,** even if they are completed at the same time or presented within the same proposal or report. Where an EPR provider proposes bundled or additional services, the following principles apply:

    - The content required to meet the mandatory minimum requirements of an EPR must be clearly distinguishable from any additional or optional services within the report. Ideally, non-EPR content is presented in a separate report.
    - Any additional analyses or deliverables outside the EPR scope must be clearly labelled as optional and be presented separately from the EPR content if presented in the same report.
    - The cost of preparing an EPR that meets the mandatory minimum requirements must be clearly separated from the costs of any additional services in both proposals and pricing summaries. Ideally, additional services are presented in separate proposals so strata corporations can understand the costs for each service.

    This separation is intended to ensure transparency for strata corporations, and to avoid confusion regarding what is required to comply with the Strata Property Act and Regulations versus what could be provided as optional, supplemental services.

In addition to these guidelines outlined in the body of this document, there are resources available in Appendix A and Appendix B of this document.

- **Appendix A** provides links to additional resources and training on EPRs.

- **Appendix B** contains:
  - An example of an EPR Template that illustrates the minimum requirements of an EPR.
  - An Excel workbook to help generate an EPR. The contents of the Excel workbook can be pasted into the EPR to support various sections of the report, as applicable.

- **Appendix C** contains methods that may be used for estimating the capacity required for new electrical loads.

- **Appendix D** contains the CHOA Request for Proposal Template for Electrical Planning Reports. EPR providers should familiarize themselves with this template so they can prepare more complete and competitive bids to deliver EPRs.

- **Appendix E** contains an example of additional information that may be required by authorities having jurisdiction (AHJs), such as the City of Vancouver (CoV), for the installation of new electrical equipment. This is for information only and is not required as part of the scope of an EPR.

The language used in this guide should be interpreted as listed in Table 2.

Table 2: Interpretation of Language Used in this Guide

WORD	INTENDED MEANING
Must	*When the EPR provider needs to meet a legislative requirement.*
Should	*A recommendation that is encouraged but not legislatively required.*
May	*An option which is allowed within the scope of the EPR requirements.*

4.1 Scope and Intent of an EPR

An EPR provides a strata corporation with a high-level understanding of its existing electrical system and available electrical capacity to help support planning for future electrical needs. An EPR helps inform decision-making, but it does not replace detailed design or engineering required for implementation, installation and commissioning of new electrical or electrically powered systems.

Specifically, an EPR **must:**

- Summarize the current electrical capacity, peak demand, and known constraints of the electrical system;
- Provide order-of-magnitude estimates of the electrical capacity required to accommodate anticipated new electrical loads including electrification of equipment powered by a source other than electricity; and
- Identify opportunities to reduce or manage electrical demand, including load-management strategies, right-sizing of equipment, and potential distribution-level upgrades.

EPRs support strata corporations in reviewing and approving owner requests for new electrical loads, while helping to avoid unintended consequences such as:

- Exceeding available electrical capacity and limiting future options;
- Increased risk of brownouts (temporary voltage drops caused by electrical demand exceeding available capacity) or service interruptions; and
- Unnecessarily or prematurely triggering electrical service upgrades.

The primary benefit of an EPR is to help strata corporations understand, at a planning level, how anticipated new electrical loads may be accommodated within the existing or future electrical system, including consideration of cost-effective and power-efficient approaches.

This is increasingly important as strata corporations respond to evolving resident needs, regulatory requirements, and market conditions. An EPR **should** provide planning-level information to support understanding of how future electrical demands associated with the following may affect the strata corporation's electrical capacity:

1. Provision of space heating and cooling using electric heat pump systems;
2. Electrification of major building or strata corporation systems currently served by fossil fuels; and
3. Increased demand for electric vehicle (EV) charging by residents, including scenarios that support broad or universal access.

EPRs **should** consider power-efficient and demand-management approaches when assessing how anticipated future electrical loads may be accommodated, particularly where unmanaged peak demand could otherwise drive costly electrical infrastructure upgrades.

As part of this planning-level analysis, EPR providers **should** consider and transparently document relevant assumptions related to strategies such as:

- Limiting electric heating and cooling demand through appropriate system selection, including avoidance of unnecessary electric resistance heating where feasible;
- Right-sizing domestic hot water and make-up air systems based on realistic demand assumptions;
- Use of displacement or hybrid approaches where existing fossil fuel systems may continue to serve peak heating demand; and
- Application of energy management or load control systems to manage flexible loads such as EV charging, domestic hot water, or in-suite laundry.

EV Charging: Because EV charging represents a large and highly flexible electrical load, EPRs **should** place particular emphasis on assessing how EV charging demand, and strategies to support broad or near-universal access to EV charging over time, may be accommodated in ways that minimize peak electrical demand and reduce the likelihood of costly electrical infrastructure upgrades.

As part of this planning-level analysis, EPR providers **should** identify and transparently document assumptions related to EV-ready approaches that may be relevant to the strata corporation's context, such as:

- Branch-circuit load sharing or shared EV supply equipment on common electrical circuits.
- Service monitoring or load-management systems that, where applicable, may allow EV charging loads to be managed in accordance with Section 8-106(11) of the 2024 Edition of the Canadian Electrical Code (CEC).

- Reference to established EV-ready planning frameworks, such as guidance on 100% EV-Ready retrofits developed by various municipalities.

All of the above noted considerations are intended to inform electrical capacity planning and do not constitute detailed system design or implementation recommendations.

4.2 Limitations of an EPR:

An EPR is intended to support a high-level understanding and preliminary planning of a strata corporation's electrical capacity.

An EPR does not provide detailed electrical load calculations, code-compliant electrical or mechanical design, equipment selection or sizing, or advice sufficient to enable the installation of new electrical loads or systems.

All estimates, assumptions, and scenarios presented in an EPR are indicative only and are intended solely for planning and decision-support purposes**.** They cannot be relied upon for detailed design, procurement, or implementation decisions.

If a strata corporation plans to add or replace electrical or mechanical equipment, it will need to separately retain a qualified professional to undertake detailed design, confirm available electrical capacity at the point of connection, determine any required upgrades, size equipment appropriately, and ensure compliance with applicable codes, standards, and regulatory requirements.

4.3 Information from the Strata Corporation

The EPR provider **should** seek to understand the strata corporation's current priorities and any known or anticipated future electrical needs, as this information may help inform the assumptions and scenarios evaluated in the Electrical Planning Report.

The strata corporation can provide input from strata residents in a variety of ways: discussions at an annual or special general meeting, resident surveys, town hall meetings or other internal processes. However, the absence of defined plans or priorities does not remove the requirement for the EPR provider to assess anticipated future electrical demands.

The EPR provider **should** consider asking the strata corporation questions such as:

- How is the strata corporation planning for EV charging? Strata legislation specifies a required process that strata corporations must follow to approve electric vehicle charging, as outlined here: https://www2.gov.bc.ca/gov/content/housing-tenancy/strata-housing/operating-a-strata/the-environment/electric-vehicle-charging#approve
- Are specific parking areas or locations being considered for EV charging?
- Is the strata corporation considering installation of heat pumps for space heating and/or cooling, either for common property or within individual strata lots?
- Has the strata corporation been getting requests from residents to install cooling equipment, including requests made as a Human Rights accommodation, which must be considered?
- Is the strata corporation planning or anticipating electrification of other major building systems currently served by fossil fuels (e.g., domestic hot water, make-up air, fireplaces, pools, hot tubs, dryers, or cooking equipment)?
- Are there specific planning questions the strata corporation would like the EPR to help inform (e.g., how many EV chargers or heat pumps could be accommodated within the strata corporation's current electrical capacity)?

The strata corporation's plans and priorities can support the EPR provider to assess whether there is sufficient electrical capacity for the strata's near-term plans. Where the strata corporation has not identified specific plans or priorities, the EPR provider **should** proceed using reasonable, planning-level assumptions about anticipated future electrical demands, based on common trends, regulatory context, and established best practices. These assumptions **should** be clearly documented and identified as scenarios and should not be interpreted as commitments or required actions by the strata corporation.

Additionally, the EPR provider requires the following information:

- **The type of strata corporation:** Any property can be strata-titled from condo towers to bare land strata developments to shopping malls. Many strata corporations are mixed-use, involving residential and commercial sections, multiple corporations sharing joint facilities, social housing arrangements, or have agreements with air space parcels.
- **A description of the property:**
    - A copy of the strata plans that identify common property, limited common property, boundaries of strata lots, the total number of strata lots and locations of common mechanical services.
    - The total number of suites and the number of bedrooms per suite. For example, thirty 1-bedroom suites and twenty 2-bedroom suites.

    - Mechanical and electric plans and drawings, if available.
    - Description of the systems in the building or on the property that require electricity such as heating, cooling, ventilation, waste management, sanitary management, flood management, EV charging, make-up air units, heat pump conversions and installations, elevators, and any other motor systems.
    - Any system that uses oil, gas, or propane.
    - Parking garage heating elements.
- **Full access to the common property systems.** This includes:
    - Electrical room(s).
    - Mechanical systems, elevator(s), electrical closets, and electrical vaults.
    - Roof systems.
    - Parking areas.
    - Alternative energy systems (for example, generators, geothermal, photovoltaic).
    - A sample of strata lots or suites.
    - Recreation areas that include pools, hot tubs and saunas.
- **If providing an EPR for a strata corporation that is part of an Air Space Parcel, it is essential to identify:**
    - The type of shared use, if any.
    - Whether any shared electrical services exist.
    - The location of electrical vaults or services located on other property within the air space parcels.
    - If the vaults and distribution centres serve more than one strata corporation or air space parcel.
    - If there are any utilities that deliver electrical service to more than one strata corporation or air space parcel.
    - Any limitations or capacity issues that arise from joint use of electrical services.

Additional documents the EPR provider may collect:

- Electrical utility billing statements.
- Aggregated kWh usage electrical data form. Building electricity use history can be requested at: **https://app.bchydro.com/accounts-billing/rates-energy-use/access-load-data.html**
- Electric Operating Permit Logbook.

- Notices or orders relating to electrical management or operations that have been issued to the strata corporation from the regional district, municipality or Technical Safety BC.
- Any existing depreciation reports, EV Ready Plans or other past reports such as a Building Condition Assessment (BCA).

INDEPENDENTLY SUPPLIED STRATA LOTS & SHORTENED EPR

In some strata corporations, individual strata lots are directly connected to the utility's electrical distribution system, meaning there is no shared electrical infrastructure. This can occur in some bare land strata corporations. In such cases, the EPR provider **must** confirm the independent electrical supply and issue a shortened EPR stating that each strata lot's electrical capacity is unaffected by the electricity use of others. The report should briefly describe the electrical distribution system (per Section 4.6.1) and **must** include key details about the strata and provider (per Section 4.3). ***Note**: Separate utility bills do not confirm independent supply. If a distribution vault or transformer serves the strata, a full EPR is required.

Regulatory Reference: Strata Property Regulation Part 5.2, Division 2, Section 5.11: *(3) If each strata lot in a strata plan receives electricity directly from a utility, independent of other strata lots, the electrical planning report must only include:*

- *(a) The information specified in subsection (2)(a) and (b);*
- *(b) A statement confirming that each strata lot is supplied with electricity independently.*

4.4 Section One: Strata and Provider Details

According to the Strata Property Regulation Part 5.2, Division 2, Section 5.11[1], an electrical planning report **must** include the following information:

> *(a) the date of the electrical planning report.*
>
> *(b) the name of the person from whom the electrical planning report was obtained and a description of*
>
> > *(i) the person's qualifications;*
> >
> > *(ii) the error and omission insurance, if any, carried by the person;*
> >
> > *(iii) the relationship between the person and the strata corporation.*

An example of how this information could be included in the EPR is shown in Appendix B.

[1] https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/12_43_2000

4.5 Section Two: Executive Summary

An executive summary will help strata councils, strata owners and prospective purchasers understand key points of the EPR. Many readers will limit their attention to the summary of the report. Plain language **should** be used for non-technical readers.

Introduction

The introduction highlights the purpose of the EPR. It **should** include the date of the site visit and any relevant disclaimers on the limitations of the information within the EPR. An example disclaimer is provided below.

Example Disclaimer: This report provides a high-level assessment to help understand the strata corporation's electrical capacity and plan for future upgrades. It is not a guarantee of electrical capacity for any particular purpose now or in the future. Before any work begins, a qualified professional must be hired to complete a detailed electrical and/or mechanical design and confirm that all work meets applicable codes and regulations. Even where the strata corporation has sufficient capacity for new equipment, additional electrical upgrades may still be required (such as panels, wiring, and disconnects between the new equipment and the utility connection) and these are not investigated as part of this report.

Executive Summary

The executive summary provides an overview, in plain language, of the findings within the EPR. This section **should** include information, such as:

- A summary of the current electrical capacity, peak demand, and known constraints of the electrical system.
- The plans and priorities shared by the strata corporation during the data collection stage, if any.
- Summary information about the available electrical capacity to:
    - Add heat pumps for efficient cooling and heating.
    - Add other cooling measures (for example, portable air conditioners or portable heat pumps).
    - Add EV Charging.
    - Other electrification opportunities (laundry, ventilation, gas fireplaces, etc.).
    - Add other electric equipment, if requested by the strata (i.e. sauna).
    - Include information on the maximum number of measures (i.e. heat pumps or EV chargers) that can be installed within the current electrical capacity.
- Opportunities to reduce or manage electrical demand, including load-management strategies, right-sizing of equipment, and potential distribution-level upgrades.

- Upgrade or conversion opportunities such as LED conversions in apartment/high rise condos that may yield significant cost savings and demand reductions.

4.6 Section Three: Existing Electrical System Details

As per the Strata Property Regulation Part 5.2, Division 2, Section 5.11[2], an EPR **must** include the following information:

> *(c) the current capacity of the strata corporation's electrical system;*
>
> *(d) a list of existing demands on the electrical system, including, without limitation, demands from*
>
> > *(i) EV charging infrastructure, if any, and;*
> >
> > *(ii) heating, cooling, ventilation and lighting systems;*
>
> *(e) the current peak demand on and spare capacity of the electrical system.*

This section **must** include:

- A short description of the electrical system
- The current total, peak, and spare capacity of electrical system
- A list of the existing major demands on the electrical system including, without limitation, demands from:
  - EV charging infrastructure
  - Heating, cooling, and ventilation
  - Domestic hot water
  - Lighting systems
  - Hot tubs and saunas
  - Large motors and/or pumps
  - Elevators

An example of how this information could be included in the EPR is shown in the Excel workbook and the electric planning report template.

It is recommended that the EPR provider conduct a site visit to become familiar with the strata corporation, its electrical systems and major existing loads.

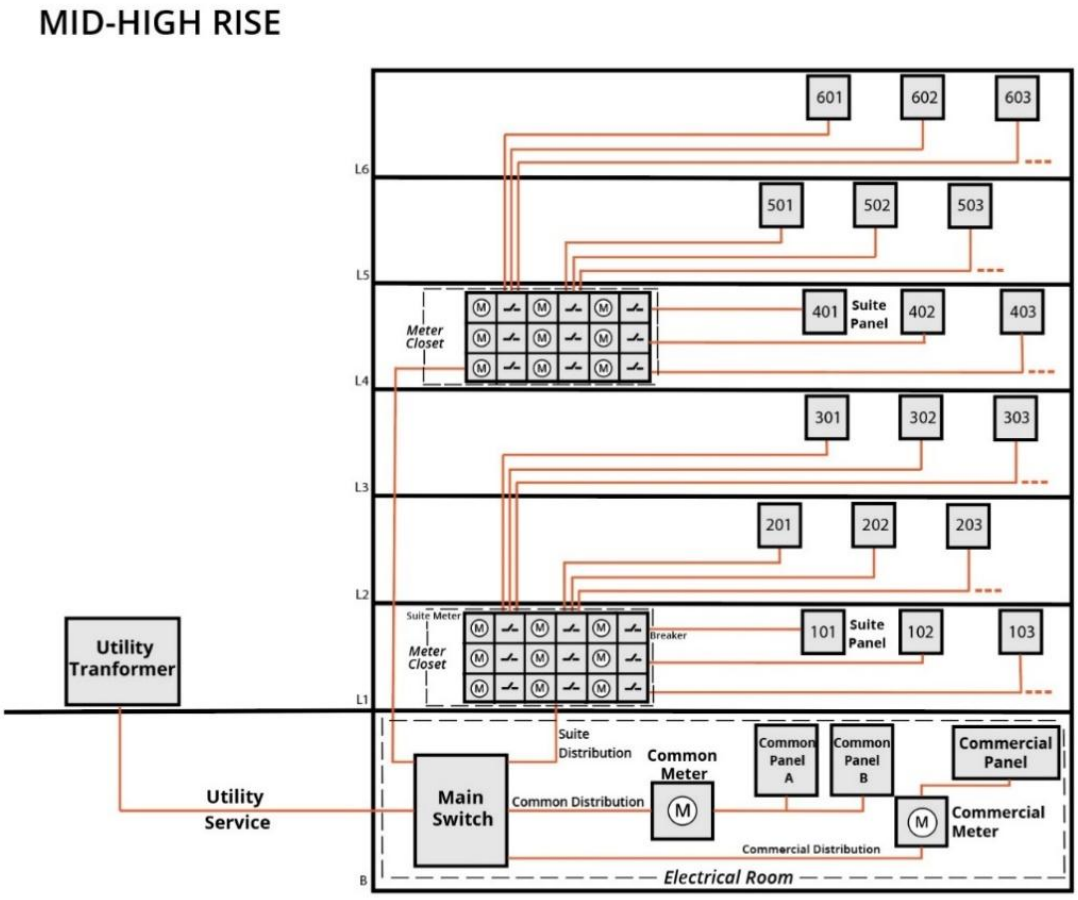
[2] https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/12_43_2000

4.6.1 Description of Electrical System

The EPR provider **should** include a short description of the existing electrical distribution system. This will provide the strata corporation with an overview of how their system is laid out and a better understanding of their electrical capacity limitations.

The description **may** be a few sentences describing how power comes from the utility/customer owned transformer to their main switch and is distributed to the common and/or suite loads. In addition, the EPR provider **may** include a generic interconnection diagram or site photos. An example of a generic interconnection diagram for mid-high-rise building is shown below.

Figure 2: Mid-High Rise Building Sample Interconnection Diagram



4.6.2 Current Capacity, Peak Demand and Spare Capacity

The EPR **must** include, at a minimum, the current capacity, peak demand and spare capacity of the main electrical system or systems serving the strata corporation.

Include the current capacity, peak demand and spare capacity of the main switch and service entrance equipment, as well as the house/common distribution. Requesting sample metering data from individual suite owners can provide suite-level data, however, this is not a requirement of an EPR.

- For a single-phase system, the current capacity (power in kW) can be calculated by using the following equation:

$$1\varphi\ Main\ Switch\ Capacity\ (kW) = \frac{\left(Rated\ Amps\ (A) \times Rated\ Voltage\ (V) \times Load\ Rating\ (\%)\right)}{1000}$$

  Where Rated Amps is the rating of the main switch/breaker, Rated Voltage is the system operating voltage, and Load Rating is the maximum permitted continuous load as a fraction of the overcurrent protection device's rated ampacity (typically 80% per CEC 2024 Rule 8-104).

- For a three-phase system, the above equation must be multiplied by the square root of three (3):

$$3\varphi\ Main\ Switch\ Capacity\ (kW) = \frac{\left(Rated\ Amps\ (A) \times Rated\ Voltage\ (V) \times \sqrt{3} \times Load\ Rating\ (\%)\right)}{1000}$$

- The method used to estimate the existing peak demand of the strata's electrical system is to be determined by the EPR provider. The method used **should** be described in the EPR.

Two Methods
Two of the methods that can be used for estimating the existing peak electrical demand of the strata's electrical system, which is then used to determine spare capacity, are outlined below:

Method (1): Using Measured Maximum Demand or Highest kWh Recorded to Estimate Spare Capacity

This is the preferred method and should be used where possible as it provides the most accurate understanding of the strata's electrical capacity. If the local electrical utility cannot provide this data, method (2) can be used instead. The EPR provider

may also choose to include data logging for a period of 2-4 weeks prior to completing the EPR to provide additional insight on how the strata uses electricity.

The 2024 Edition of the Canadian Electrical Code Rule 8-106 (8)[3] allows using measured demand load to estimate the spare capacity "*Where additional loads are to be added to an existing service or feeder, the augmented load shall be permitted to be calculated by adding the sum of the additional loads, with demand factors as permitted by this Code,* ***to the maximum demand load of the existing installation as measured over the most recent 12-month period****, but the new calculated load shall be subject to Rule 8-104 5) and 6).*"

i) This information may be obtained from the electric utility or from privately owned smart metering equipment which records the peak demand of the building's electrical service. In most cases, the utility can only provide an aggregated peak kWh recorded for the site, which can be used to estimate the peak demand by applying a safety factor. This process is outlined below. Obtain the 12-month period measured maximum demand or maximum aggregated kWh reading for the site from the utility.

   If the electrical utility is BC Hydro, the maximum aggregated kWh reading for the site can be obtained by filing an online request: ***bchydro.com/peakloaddata***. If available, existing customer-owned demand metering equipment can also be used to obtain the building's 12-month peak demand.

   BC Hydro's data request service is available for multi-unit commercial and residential buildings with five or more units (including apartments, townhome complexes, and mixed-use buildings). For buildings with four or less meters, including social housing complexes with a single meter, the account owner must log in to their MyHydro account and download their consumption history for the preferred time period.

   The requirements for multi-unit commercial and residential buildings with five or more units are as follows:

   - A list of service addresses and BC Hydro meter numbers.

[3] https://www.csagroup.org/standards/areas-of focus/electrical/?srsltid=AfmBOoqdx1g8hgucs8wGg23_qsdOBDa_A9JEsHndmjCByrow87VSDSK-

- A site visit completed within the last 24 months. This includes reviewing the strata corporation's electrical distribution system, meter rooms, connected loads, and any transformers on site.
- A BC Hydro building authorization form will need to be signed by someone authorized by the strata corporation. This is to confirm that the EPR provider has the consent of the strata corporation to request the utility data. The form is available at: https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/accounts-billing/forms-guides/third-party-authorization-form-for-energy-data-requests.pdf

ii) Calculate the maximum/peak demand from the data provided by BC Hydro or another utility.

- Since most multi-unit residential properties do not have a master demand meter for the site, **BC Hydro is only able to provide the service address aggregated maximum single hour kWh reading over the most recent 12-month period.** This information is typically labeled as 'Service Address Max kWh'. This value needs to be converted to a peak demand in kW.
- Calculate the maximum/peak demand for the site by taking the service address maximum kWh reading and applying **a safety factor.**
- The equation for estimating the peak demand is as follows:

$$Estimated\ Peak\ Demand = Service\ Address\ Max\ kWh\ \times (1 + Safety\ Factor\%)$$

Where the safety factor is a percentage increase to account for variation in peaks over the sampling period of the utility metering data.

- Safety factor: For multi-unit residential buildings, the chosen safety factor is at the discretion of the EPR provider until an industry standard is determined.
- Technical Safety BC (TSBC) has published information on the use of **safety factors for single dwellings**, however, there is currently no guidance on safety factors for multi-unit residential or mixed-use buildings.

iii) The data provided by BC Hydro or another utility provider may include the maximum kW or kWh over the specified time period for the house/common meter, as applicable. This information can be used to estimate, in a similar way as described above, the spare capacity of the house/common distribution.

This may be applicable to bare land, townhouse and detached townhouse strata corporations.

Method (2) Using the Calculated Loads per the CEC to Estimate Spare Capacity

If the utility cannot provide maximum kWh readings as per Method (1), the EPR provider **may** choose to calculate the estimated peak demand by using demand factors and allowances as permitted by the Canadian Electrical Code (CEC) Section 8.

An important caution: This method is typically more conservative and may result in a calculation that offers less spare capacity when compared to the hourly data with application of safety factor.

This method is available to estimate the spare capacity of the electrical distribution for the strata lots if they are all metered separately, and the electrical utility cannot provide the maximum measured kWh reading for them. This limitation may be encountered where there are sections, air space parcels, or joint use corporations with integrated electric distribution.

To calculate the spare capacity, take the calculated capacity and subtract the estimated maximum/peak demand.

4.6.3 List of Existing Demands

The list of the existing major demands on the electrical system can be compiled by surveying the major equipment on site and by reviewing existing building or strata corporation drawings, and any records of past electrical upgrades, if available.

For the existing major demands, it **should** be noted in the EPR which distribution system they are connected to, as this can be useful information for future planning.

4.7 Section Four: Additional Electrical Loads

As per the Strata Property Regulation Part 5.2, Division 2, Section 5.11[4], an EPR **must** include the following information about anticipated future demand for electricity:

> *(f) if applicable, an estimate of the electrical capacity that would be needed to power systems, including heating, cooling and ventilation systems, that are currently powered by an energy source other than electricity;*

[4] https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/12_43_2000

(g) an estimate of the electrical capacity needed for any other anticipated future demands on the electrical system, including electrical capacity needed to power

(i) heating, cooling, ventilation and other systems that the strata corporation anticipates may be modified or installed in the future, and;

(ii) EV charging infrastructure that the strata corporation anticipates may be installed in the future.

This section **must** include an estimate of the capacity needed to power:

- Major systems currently not powered by electricity (for example, gas-fired make up air unit, domestic hot water, space heating boiler, laundry, cooking appliances, furnace, pool heaters, saunas and hot tubs).
- Any other anticipated future demands.

An example of how this information could be included in the report is shown in the Excel workbook and the report template.

4.7.1 Estimate of Capacity Required for New Electrical Loads

The EPR provider **must** provide an estimate of the electrical capacity needed to power, without limitation, heating, cooling, ventilation, and domestic hot water systems that are currently powered by a source other than electricity. The method used to estimate the capacity needed is chosen by the EPR provider. All methods and assumptions **must** be clearly stated in the report. For example:

- Using an estimated kW/suite for new equipment.
- Nameplate ratings of existing fossil fuel equipment, in BTU/hr, converted to kW, accounting for the coefficient of performance (COP) of the new high efficiency electric equipment as well as historical oversizing of existing gas equipment.
- Other methods as deemed appropriate.

Refer to Appendix C for examples of methods that **may** be used to estimate the capacity required for new electrical loads.

4.7.2 Anticipated Future Electrical Demands

When estimating future electrical capacity requirements, EPR providers should consider, at a planning level and where relevant to the strata corporation's context, anticipated future electrical loads. These may include:

- **Space heating and cooling using efficient electric heat pump technology:** Demand for space cooling is increasing in many areas of British Columbia, and heat pumps may be considered as a potential future load. Electric baseboards can be replaced with heat pumps of equal or lower capacity and cooling can be added while reducing, rather than increasing, the demand.
- **Decarbonization of major building or strata corporation systems currently served by fossil fuels:** Planning scenarios may include full or partial decarbonization, including hybrid approaches that retain some combustion systems to meet peak heating demand while reducing overall fossil-fuel use. Where fossil fuel heating systems are electrified, EPR providers should apply planning assumptions that reflect power-efficient technologies and avoid approaches that are known to overstate electrical demand (e.g., avoid direct one-for-one replacement of fossil-fuel equipment with electric resistance heating of equivalent nameplate capacity).
- **Electric vehicle charging:** EPR providers should evaluate how EV charging demand may be accommodated within existing or future electrical capacity, including scenarios that support broad or near-universal access to EV charging over time. Planning assumptions should reflect the flexible nature of EV charging loads and may consider power-efficient strategies such as load sharing, energy management systems, and managed peak demand.

In addition, EPR providers may flag the possibility of anticipated future requirements from provincial or local governments that could affect replacement of fossil-fuel-fired equipment at end of life, and the implications of such policy changes for long-term electrical capacity planning.

4.8 Section Five: Recommendations

As per the Strata Property Regulation Part 5.2, Division 2, Section 5.11[5], an electrical planning report **must** include specific information.

The information that **must** be included in EPR is as follows:

> *(h) steps, if any, that the strata corporation could take to reduce the demands on the capacity of the electrical system;*
>
> *(i) upgrades or modifications, if any, to the electrical system that the strata corporation could practicably undertake to increase the capacity of the electrical system;*

[5] https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/12_43_2000

(j) an estimate of the electrical capacity that would be made available if the strata corporation were to take steps referred to in paragraph (h) or undertake upgrades or modifications referred to in paragraph (i).

The EPR provider **must** provide recommendations to the strata corporation for possible ways to reduce the electrical capacity required by existing or anticipated future demands, as well as possible upgrades that could allow the strata corporation to effectively manage demand for electricity. An example of how this information could be included in the report is shown in the Excel workbook and the report template.

4.8.1 Electrical Load Reduction Strategies

The EPR provider **must** identify steps, if any, that the strata corporation could take to reduce electrical demand on its system, either for current conditions or anticipated future installations, in order to avoid or limit electrical capacity upgrades.

As a best practice, EPR providers **may** also indicate the relative priority or sequencing of demand-reduction measures where this information would be helpful for planning purposes, recognizing that detailed implementation planning is outside the scope of an EPR.

Examples of demand-reduction strategies that **should** be considered, include:

- Providing heating and cooling through high-efficiency electrical equipment such as heat pumps.
- Exploring hybrid solutions.
- Converting all common area lighting systems to LED, with demand reduction where feasible.
- Installing EV Energy Management Systems (EVEMS).
- Implementing lighting or HVAC controls (e.g. occupancy sensors, programmable thermostats, or time controls).
- Adding solar generation/PV and/or battery storage, or improving the building envelope, where these measures contribute to reduced electrical demand.
- Identify the benefits of suite-level upgrades for owners to consider, such as high-efficiency electric appliances (laundry, dishwashers, cooking equipment) and load management systems to control in-suite HVAC, domestic hot water and laundry.

4.8.2 Recommendations for Electrical Upgrades

The EPR provider **must** provide any recommendations for upgrades or modifications that could be practicably undertaken to increase the existing electrical capacity based on the information they have gathered and their observations on site.

If necessary, this **may** include a recommendation for an electrical service upgrade. Given the potential costs, prior to recommending an electrical service upgrade it is important to identify the strategies mentioned above for reducing and managing electrical demand within the existing capacity where possible.

Other upgrades within the building or strata corporation may be required, depending on the equipment selected and where it is being installed. This includes electrical disconnects, overcurrent devices, feeders and panels. The EPR provider **should** inform the strata corporation that other potential upgrades may be required at the time of installation of additional electrical equipment.

5. Deliverables Beyond the Minimum Requirements

EPR providers may offer additional services or analyses beyond the minimum legislative requirements of an Electrical Planning Report. Where additional services are proposed, EPR providers **must** ensure that their proposal clearly distinguishes the cost of preparing an EPR that meets the mandatory minimum requirements from the costs of any additional, optional services. Ideally, costs for separate, non-EPR, services are presented in separate quotes.

Further, if EPR providers are presenting EPR content and optional content in the same report, they **must** ensure that any content provided beyond the minimum EPR requirements is clearly labelled as outside the scope of the EPR, so that strata corporations can readily understand what is required for compliance versus what is provided as an additional service.

Examples of possible additional services are listed below:

- EV ready planning report (can provide cost savings to the strata corporation if provided by the same provider in conjunction with an EPR).
- CleanBC Retrofit Opportunity Assessment.
- Cost estimates for the work outlined in the report.
- Specifications for equipment.
- Full assessment of electrical infrastructure.
- Feasibility study to expand electrical capacity.
- Design drawings and specifications.

6. Best Practices for Electrical Planning Reports

This section outlines the best practices for EPR providers to consider while completing an EPR. These are not legislated requirements, however, implementing these practices can provide additional value to an EPR and potentially provide cost reductions by avoiding duplication of work.

6.1 Informing Depreciation Reports and Vice Versa

Electrical Planning Reports (EPRs) and depreciation reports serve different purposes but can support each other. An EPR can inform depreciation planning by identifying future electrical capacity constraints and upgrade needs, while a depreciation report can inform an EPR by identifying anticipated system replacements and timing.

EPRs provide information about the current capacity of the strata corporation's electrical system and an analysis of existing and future electrical demands, including heating, cooling, ventilation, and other systems, as well as electric vehicle (EV) charging infrastructure. EPRs also provide recommendations on steps to reduce demands and strategies to increase the capacity of the current electrical system. A depreciation report on a five-year cycle provides an inventory of all common property and common assets of a strata corporation and their life cycles, and cost estimates for renewals.

Depreciation report providers may benefit from reviewing an electric planning report in evaluating electrical and mechanical systems, their current life cycles and future performance. Depreciation report providers are advised to consult local government bylaws and conversion requirements when completing a new report or renewal. Energy conversions and upgrades such as boiler electrification, heat pumps and EV charging may be required at a future date. Depreciation report providers should consult local government regulations when completing a new report or renewal. Depreciation reports do not identify electrical demand management and distribution within a strata corporation, shared facilities or air space parcels.

It is important to note that depreciation reports often assume like-for-like replacement of mechanical systems at end of life. In some cases, this approach may not fully reflect emerging strata priorities or interests, such as adding heat pumps to provide efficient heating and cooling or increasing the availability of EV charging infrastructure. An EPR can help identify where future electrical capacity considerations may warrant different assumptions or additional planning beyond those traditionally captured in a depreciation report.

6.2 Benefits of Obtaining an EV Ready Plan in Parallel with an Electrical Planning Report

Because much of the same data collection and many similar high-level calculations are required for both an Electrical Planning Report (EPR) and an EV Ready Plan, cost efficiencies can often be achieved when both are prepared concurrently by the same firm. Where bundled, these efficiencies may reduce overall costs, and, where possible, such savings should be passed on to the strata corporation. Some municipalities already encourage the concurrent preparation of EPRs and EV Ready Plans, and others may adopt similar approaches over time.

EV READY PLAN

An EV Ready Plan is a professional document prepared by a licensed electrical contractor and/or electrical engineer. It includes a detailed plan for the core infrastructure to provide each residential unit with at least one EV Ready parking space.

EV ready plans are optional for strata corporations considering the electrification of parking areas designated for residential use. Some grants and other funding support are periodically provided by local governments and the province. These may require an EPR before funding is granted.

6.3 Benefits of Obtaining an Opportunity Assessment in Parallel with an Electrical Planning Report

In addition to electrical planning reports, similar data is gathered and many of the same calculations must be completed for a Retrofit Opportunity Assessment. Having both or all three reports (EPR, EV Ready Plan and Retrofit Opportunity Assessment) completed simultaneously by the same firm or at least have the data and assumptions shared between providers, would significantly reduce time spent on separate reports. These savings should ideally be passed on to the strata corporation. Reports generated with different data and assumptions will be contradictory, confusing and less effective for strata councils. Incorporating the upgrade recommendations from the opportunity assessment in the EPR, as well as capitalizing on the funding available to complete these reports, can help offset the costs of EPRs. It is important to note that service providers must meet the qualification requirements for delivering each service.

THE RETROFIT OPPORTUNITY ASSESSMENT

The Retrofit Opportunity Assessment is designed to provide CleanBC Multi-Unit Residential Building Retrofit Program participants with a high-level, short-and-long-term plan for transitioning their building from using electric baseboards or fossil fuels to high-efficiency electric systems, improve building efficiency, integrate solar and battery, and become EV-ready. The Retrofit Opportunity Assessment identifies all retrofit opportunities, highlights priority retrofits (based on participant priorities, energy savings/GHG emissions) and links participants to available program rebates and other financial supports. For more information on the Retrofit Opportunity Assessment, including qualifications for delivery providers, see: https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/power-smart/business/programs/participant-guide-multi-unit-residential-building-retrofit-program.pdf

Strata corporations are under no obligation to have a Retrofit Opportunity Assessment prepared but, as of April 2026, the **Multi-Unit Residential Building Retrofit Program** provides 100% funding up to $5,000 for these assessments.

The scope of a Retrofit Opportunities Assessment, EV Ready Plan, as well as which parts could align with an EPR, are shown in the table below.

Table 3: Comparison of Retrofit Opportunities Assessment, EV Ready Plan and EPR

CONTENT	EPR	RETROFIT OPPORTUNITY ASSESSMENT	EV READY PLAN
Review of previous energy audits, building condition assessments, drawings, as available	Recommended	Required	Electrical drawings only
Site visit to assess existing mechanical and electrical equipment	Recommended	Required for whole building	Required for electrical infrastructure and parking stalls
Facility description	Focused on electrical infrastructure and power source of major equipment	Detailed whole facility description	Focused on electrical infrastructure and parking stalls

Table 3 Continued: Comparison of Retrofit Opportunities Assessment, EV Ready Plan and EPR

CONTENT	EPR	RETROFIT OPPORTUNITY ASSESSMENT	EV READY PLAN
Electrical capacity check	Required	Required	Required
Electrification opportunities (for systems not powered with electricity)	Electrical capacity estimates only	Electrical capacity estimates and detailed descriptions	Not required
Anticipated future electrical demands (e.g. cooling and EV chargers)	Electrical capacity estimates only	Electrical capacity estimates and detailed descriptions for all opportunities	Electrical capacity estimates and detailed descriptions for EV chargers only
Electrical demand reduction strategies	Identify & estimate electrical capacity (where possible)	Electrical capacity estimates and detailed descriptions	Not required
Recommendations for Electrical Upgrades	High-level service level upgrades	Identify in reference to each opportunity	Detailed description for EV chargers only
Energy Breakdown of Current Energy Use	Not required	Required	Not required
Energy and utility cost impact calculations for electricity, fuel consumption, and GHG emissions	Not required	Required	Not required
Capital cost estimates	Not required	For each opportunity	For EV charging upgrades
Summary and estimation of applicable rebates or tax credits	Not required	For each opportunity	For EV charging upgrades

Appendix A: Resources and Training

BC Housing's Report on Electrical Planning:

- Maintenance Matters Bulletin 23: Electrification in Multi-Unit Residential Buildings (Access at: https://www.bchousing.org/sites/default/files/media/documents/MM23-Electrification-In-Multi-Unit-Residential-Buildings.pdf)

CHOA (Condominium Homeowners Association of B.C.):

- Introduction to Electrical Planning Reports (Access at: https://choa.bc.ca/wp-content/uploads/Electrical-Planning-Reports-Feb-27-2024.pdf), Power point deck, 26 slides
- Air Space Parcel Agreements (Access at: https://choa.bc.ca/wp-content/uploads/pdf/600/600-005-Understanding-ASP-agreements-May-20-2015.pdf)
- Request for Proposals: Electric Planning Report (Access at: https://choa.bc.ca/wp-content/uploads/400-518-Request-for-Proposal-Electrical-Planning-Reports-fillable.pdf)

Province of B.C.'s Strata Housing Website:

- Electrical planning reports: (Access at: https://www2.gov.bc.ca/gov/content/housing-tenancy/strata-housing/operating-a-strata/the-environment/electrical-planning-report)
- Electric vehicle charging in strata corporations (Access at: https://www2.gov.bc.ca/gov/content/housing-tenancy/strata-housing/operating-a-strata/the-environment/electric-vehicle-charging)

VISOA (Vancouver Island Strata Owners Association):

- Electric vehicle charging in stratas (Access at: https://visoa.bc.ca/resources/electric-vehicle-charging-in-stratas/)

Appendix B: EPR Template and Workbook

i. Electrical Planning Report (EPR) Template

This document provides a suggested outline and instructions for completing an electrical planning report. If this template is to be used as a 'skeleton' document for an EPR, the instructions should be deleted and replaced with wording for the EPR. This template is meant to support EPR providers along with the 'Guidance for the Preparation of Electrical Planning Reports for Strata Corporations in British Columbia' document and the Excel workbook that accompanies it. Refer to those documents for detailed information on how to complete each section of this template.

In this guidance, "**must**" is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the minimum requirements of an EPR; "**should**" is used to express a recommendation or that which is advised but not required; and "**may**" is used to express an option or that which is permissible within the limits of the EPR requirements.

Section 1 - Strata and Provider Details

An example of what information **must** be included is shown below. This format **may** be used in the electrical planning report but is not required.

Date and Property Details

Date EPR created (DD/MM/YYYY)	**Is each strata lot in the strata plan supplied with electricity independently from each other strata lot? (yes/no)**
	If yes, include a description of the electrical distribution to support your answer
Building address	
Building common name (If Applicable)	**Strata #**

EPR Provider Contact and Qualifications

Company name	
Address	
Name	**Qualifications (P.Eng, AScT, Journeyperson)**
Relationship with strata corporation	

Error and Omission Insurance (if applicable) (Y/N)

If yes, attach a copy at the end of the electrical planning report.

Section 2 – Executive Summary

Introduction

The objective of this section is to highlight the purpose of the electrical planning report. It **should** include the date of the site visit and include any relevant disclaimers on the limitations of the information within the electrical planning report.

Summary

The executive summary provides an overview, in plain language, of the findings within the EPR. This section **should** include information, such as:

- Summarize the current electrical capacity, peak demand, and known constraints of the electrical system.
- Information on the plans and priorities shared by the strata corporation during the data collection stage, if any.
- Provide summary information about the available electrical capacity to:
    - Add heat pumps for efficient cooling and heating.
    - Add EV charging.
    - Or add other cooling measures (portable air conditioners or portable heat pumps).
    - Other electrification opportunities (laundry, ventilation, gas fireplaces, etc.).
    - Add other electric equipment, if requested by the strata (i.e. sauna).
    - Include information on the maximum number of measures (i.e. heat pumps or EV chargers) that can be installed within the current electrical capacity.
- Identify opportunities to reduce or manage electrical demand, including load-management strategies, right-sizing of equipment, and potential distribution-level upgrades.

- The table below is an example of how the findings of the EPR can be summarized.

System	Existing Fuel Type	Description of Existing System (example only)	Option Considered (example only)	Capacity Available? (example only)
Residential Heating/Cooling	Gas	Central boiler with in-suite hydronic baseboard heaters (no cooling)	Replace the existing gas boiler and hydronic baseboards with in-suite mini-split heat pumps, with one outdoor unit per suite to provide heating and cooling	Insufficient capacity for full electrification. However, there may be sufficient capacity for heat pumps for up 6 suites.
Common Area Heating/Cooling	Electric	Electric baseboard heaters	Replace existing thermostats with programmable smart thermostats for energy savings	N/A
Domestic Hot Water	Gas	Central gas boiler	Replace the existing gas boiler with hot water heat pumps and a swing tank	Yes
Ventilation (MUA)	Electric	4 x ½ horsepower rooftop units	Install variable frequency drives (VFDs) to reduce peak inrush current for demand reduction	N/A
EV Charging: Capacity for Number of Suite	N/A	N/A	One level 2 EV charger per suite with 4:1 load sharing system	Insufficient capacity for 100% EV charging (20 parking stalls). However, there appears to be sufficient capacity for up to 8 EV chargers on a 4:1 load sharing system.

Section 3 - Existing Electrical System Details

Description of Electrical System

This section **should** include a short description of the existing electrical distribution system to give the strata corporation a better understanding of how their system is laid out and be able to understand the concept of how electrical capacity limitations depend on where in the system is the load being added.

Current Capacity, Peak Demand and Spare Capacity

This section **must** include the current total, peak, and spare capacities of the main electrical distribution system(s) for the strata lot. Optionally, it **may** include the current total, peak, and spare capacities for the residential suite(s) distribution(s) and house/common distribution(s), as applicable. The table below is from the excel workbook and **may** be used in the electrical planning report. If there are multiple main distribution systems, separate rows **must** be included for each one.

Existing electrical service rating (A, % rated)	
Existing electrical service switch/breaker rating (A, % rated)	
System operating voltage (V, ϕ)	

Current Capacity on the Service (kW)	
Current Peak Demand on the Service (kW)	
Current Spare Capacity on the Service (kW)	
Current Capacity on the House/Common Distribution (kW)	Optional
Current Peak Demand on the House/Common Distribution (kW)	Optional
Current Spare Capacity on the House/Common Distribution (kW)	Optional
Current Capacity on the Residential Distribution (kW)	Optional
Current Peak Demand on the Residential Distribution (kW)	Optional
Current Spare Capacity on the Residential Distribution (kW)	Optional

How was existing peak demand determined? (Ex. BC Hydro 12-month maximum demand kWh data with application of safety factor or calculated by applicable rules of Canadian Electrical Code *[must cite rules referenced]*)

The report **must** indicate how the peak demand was determined.

Existing Major Electrical Loads

This section **must** include a list of the existing major demands on the electrical system. It **should** indicate to which electrical distribution branch (common/house or residential/suites) the loads are connected to. The table below is from the excel workbook and **may** be used in the electrical planning report.

Type	Connected to Electrical Distribution (common-house/residential-suite/NA)
Heating	
Cooling	
Ventilation	
DHW	
Lighting systems	
Laundry	
Major pumps (sump & sanitary)	
Elevators	
EV charging	

Section 4 – Additional Electrical Loads

Estimate of Capacity Required for Electrification and Future Electrical Demands

This section **must** include a list of ALL systems that are currently powered by a source other than electricity as well as an estimate the magnitude of electrical capacity required to convert each item to an electric source. For each system, it **should** indicate if there is to be enough capacity for electrification.

This estimate should be based on reasonable, planning-level assumptions that reflect the use of systems and strategies intended to minimize electrical capacity requirements (i.e. power-efficient design). Such assumptions may include high-efficiency heat pump systems without backup electric resistance heating, displacement or hybrid strategies that avoid

most fossil fuel use while retaining fossil fuel systems to meet peak demand, and energy management systems to control EV and non-EV electrical loads.

Estimates of electrical capacity and available capacity at the main electrical service are indicative only and are not intended for the purposes of compliance with the BC Electrical Code. They are provided solely to inform the strata corporation's long-term capital planning and decision-making**.**

The table below is from the Excel workbook and **may** be used in the electrical planning report.

System	Description	Quantity	Existing Fuel Source (If Applicable)	Existing Output (BTU/hr)	COP of Retrofit Equipment at Design Temperature	Estimated Magnitude of Electrical Capacity (kW)	Capacity Available at Main Service (Y/N/TBD*)
Space Heating							
Space Cooling							
Ventilation							
Domestic Hot Water							
EV Charging							
Other							

*TBD: Allows for indication that accommodating loads may be subject to ongoing historical load estimations and energy management systems control that may be integrated in the future.

Section 5 - Recommendations

Electrical Demand Reduction Strategies

The report **must** include recommendations for demand reduction or demand-management strategies that the strata corporation could implement to reduce the

electrical demand on their system, either currently or for future installations. Where feasible, it **must** also provide a high-level estimate of the potential impact of these strategies on the electrical demand or available capacity. An example of demand reduction strategies that **may** be considered, without limitation, are as follows:

- Providing heating/cooling through high efficiency electrical equipment such as heat pumps.
- Upgrading common area lighting to LED.
- Installing an EV Energy Management Systems (EVEMS).
- Using high-efficiency electrical appliances (laundry, dishwashers, cooking ranges, etc.).
- Adding on-site solar and/or battery storage.
- Improving the building envelope to reduce overall heating and cooling demand.

Recommendations for Electrical Upgrades

The EPR provider **must** provide any recommendations for upgrades that could be practicably undertaken to increase the capacity based on the information they've gathered and their observations on site.

Although not required by the EPR legislation, the EPR provider may include a recommendation that the strata corporation regularly (e.g. annually or more frequently) track instantaneous electrical loading on the main service and relevant feeders for the purpose of monitoring available electrical capacity to accommodate future loads. This may be achieved using BC Hydro metering data or customer-owned sub-metering equipment where BC Hydro metering is not viable.

ii. Electrical Planning Report - Workbook

Note: If each strata lot in the strata plan is supplied with electricity by a utility independently from each other strata lot, only Section 1 of this workbook is required for the electrical planning report.

Section 1 - Strata and Provider Details

Date and Property Details

Date EPR created (DD/MM/YYYY)	Is each strata lot in the strata plan supplied with electricity independently from each other strata lot? (yes/no)
	If yes, include a description of the electrical distribution to support your answer

Building address

Building common name (If Applicable) | **Strata #**

EPR Provider Contact and Qualifications

Company name

Address

Name	Qualifications (P.Eng, AScT, Journeyperson)

Relationship with strata corporation

Error and Omission Insurance (if applicable) (Y/N)

If yes, attach a copy at the end of the electrical planning report.

Section 2 - Executive Summary

Introduction

Summary

Section 3 - Electrical System Details

Existing Electrical Service Capacity

Existing electrical service rating (A, % rated)	
Existing electrical service switch/breaker rating (A, % rated)	
Existing system operating voltage (V, ϕ)	

Capacity on the service (kW)	
Current peak demand on the service (kW)	
Current spare capacity on the service (kW)	
Current capacity on the house/common distribution (kW)	
Current peak demand on the house/common distribution (kW)	
Current spare capacity on the house/common distribution (kW)	
Current capacity on the residential distribution (kW)	
Current peak demand on the residential distribution (kW)	
Current spare capacity on the residential distribution (kW)	

How was existing peak demand determined? (Ex. BC Hydro kWh data with application of safety factor, calculated by applicable rules of Canadian Electrical Code *[must cite rules referenced]*)

Existing Electrical Demands

List of existing demands on the electrical system including, without limitation, demands from EV charging infrastructure, heating, cooling, ventilation, and lighting systems.

Type	Electrical Distribution (common or suite)
Heating	
Cooling	
Ventilation	
Domestic Hot Water	
Lighting systems	
Major pumps (sump & sanitary)	
Elevators	
EV charging	

Description of Existing Electrical Distribution

Description or Schematic of Electrical Distribution

Section 4 - Additional Electrical Loads

Estimate of Electrical Capacity Needed to Electrify Heating, Cooling, and Ventilation Systems

If applicable, provide an estimate of the electrical capacity that would be needed to power systems, including heating, cooling, and ventilation systems, that are currently powered by a source other than electricity.

An estimate of the electrical capacity needed for any other anticipated future demands on the electrical system, including electrical capacity needed to power
(i) heating, cooling, ventilation and other systems that the strata corporation anticipates may be modified or installed in the future, and
(ii) EV charging infrastructure that the strata corporation anticipates may be installed in the future;

System	Description	Quantity	Existing Fuel Source (If Applicable)	Existing Output (BTU/hr)	COP of Retrofit Equipment at Design Temp	Estimated Magnitude of Electrical Capacity (kW)	Capacity Available at Main Service (Y/N/TBD*)
Space Heating							
Space Cooling							
Make Up Air							
Domestic Hot Water							
EV Charging							
Other							

*TBD: Allows for indication that accommodating loads may be subject to ongoing historical load estimations and energy management systems control that may be integrated in the future.

Section 5 - Recommendations

Electrical Demand Reduction Strategies

List steps, if any, that the strata corporation could practicably undertake to reduce the demand on the electrical system and estimated electrical capacity that would be made available from these demand reduction strategies.

Recommendations for Electrical Upgrades

List upgrades or modifications, if any, to the electrical system that the strata corporation could practicably undertake to increase the capacity of the electrical system.

Estimate of Electrical Capacity Made Available

Estimated electrical capacity that would be made available from demand reduction strategies, upgrades or modifications to the electrical system listed above.

Appendix C: Methods for Estimating Electrical Capacity Requirements for New Loads

This appendix describes two planning-level methods that can be used to estimate the electrical capacity required to support the conversion of fossil-fuel systems to high-efficiency electric alternatives. These methods are intended to assist EPR providers in developing reasonable capacity estimates at the reporting stage and are not intended for detailed equipment sizing or design. The methods presented here are not prescriptive; other approaches may be more appropriate depending on the building type, occupancy, or available information. The EPR provider **must** use their professional judgment in selecting the most suitable method based on the specific building context and **must** clearly document all methods and assumptions used in the report.

Method 1: Estimated kW/Suite

The EPR provider can use an estimated kW/suite in their calculations depending on the type of equipment being converted from fossil-fuel to a high-efficiency electric alternative. This method is particularly suited to low-to-mid rise multi-unit residential buildings. For all building types or occupancies, the EPR provider **should** apply professional judgment in determining whether this method is appropriate.

Application of this method requires knowledge of the total number of suites and the bedroom count for each suite. Using this information, the following high-level planning estimates may be applied:

In-suite or Central Space Heating/Cooling (Heat Pumps):

- Bachelor or 1-Bedroom Suite: 2.4 kW/suite
- 2-Bedroom Suite: 3.8 kW/suite
- 3-Bedroom Suite: 5.0 kW/suite

Central Heat Pump Domestic Hot Water (DHW) System: 0.36 kW/suite. Note this does not apply to in-suite DHW heat pumps.

Central Ventilation – Makeup Air (MUA): 0.2 kW/suite

The estimated kW per suite values are high-level planning assumptions intended to support EPRs and are not intended for detailed equipment selection or design.

Method 2: BTU/hr Nameplate Conversion with COP Adjustment

This method estimates the electrical capacity required to replace existing fossil-fuel equipment based on nameplate ratings. These calculations are indicative only and are not intended for detailed design.

Step 1 – Convert nameplate output to kW:

$$\text{Estimated Capacity (kW)} = \frac{\text{Rated Output (BTU/hr)}}{3{,}412}$$

Step 2 – Apply COP-based efficiency reduction:

$$\text{Adjusted Capacity (kW)} = \frac{\text{Estimated Capacity (kW)}}{\text{COP}}$$

Where COP represents the coefficient of performance of the proposed high-efficiency electric equipment under relevant operating conditions.

EPR providers can reference planning-level COP values commonly observed for certain cold-climate heat pump technologies. For example, cold-climate mini-split heat pumps may have COP values in the range of approximately 1.5 to 2.0 at a winter design temperature such as -15°C. COP values are not prescriptive and may not be appropriate for all equipment types/end uses, configurations, or climates. COP will vary widely by system, application, make, and model. The EPR provider **must** apply professional judgment in selecting COP assumptions that are reasonable for the end use (space heating, make-up-air, domestic hot water all have different typical COP ranges) and clearly document the assumptions used.

When recommending heat pumps, EPR providers should consider the available utility rebates, which have equipment eligibility criteria that require systems with a higher COP.

It is important to note that this method is based on the nameplate output of existing fossil fuel equipment and does not reflect the actual loads of the building or strata corporation. As a result, it typically overestimates the electrical capacity required, particularly where existing equipment is oversized. For example, in many older buildings (1960s–1970s), gas boilers used for space heating have been found to be oversized by a factor of approximately two to three, relative to actual heating loads.

Where this method is used, the EPR provider **must** apply professional judgment and consider whether the calculated demand reasonably reflects known oversizing of the existing fossil fuel system and further determine if the load estimate could be lowered through proper sizing of high-efficiency mechanical equipment at the time of equipment design and selection.

Appendix D: CHOA Request for Proposal Template for Electrical Planning Reports

CHOA has developed a sample Request for Proposal (RFP) template (Bulletin 400-518) specifically for strata corporations looking to solicit quotes for Electrical Planning Report services. Strata councils can use this template as a starting point when reaching out to qualified professionals, helping ensure that the scope of work, building details, and submission requirements are clearly defined from the outset. A copy of the document, as of April 2026, is provided below. The fillable PDF template is free and accessible directly at https://choa.bc.ca/wp-content/uploads/400-518-Request-for-Proposal-Electrical-Planning-Reports-fillable.pdf, or through the CHOA Information Bulletins page at choa.bc.ca. EPR providers are encouraged to familiarize themselves with this template, as strata corporations may use it when inviting EPR providers to submit a proposal. Understanding its structure can help EPR providers prepare more complete and competitive bids.

Condominium Home Owners Association of British Columbia
Leadership, Education and Resources for Strata Owners Across BC
Website: www.choa.bc.ca / Toll-free: 1.877.353.2462
Bulletin: 400-518 (Feb 27, 2024)

Request For Electrical Planning Report Services

Why should we issue a request for proposals?

Strata corporations vary dramatically in size and design and geographic locations across BC. Some are served directly by BC Hydro, others by their local governments or Fotis. Access to consumption records and methods of calculations may be affected by these differences. To ensure your strata community is obtaining quotes that clearly recognize your location, services, designs, number of units and design distribution of electrical services, an RFP will help both your service provider and your strata council to understand what is expected in the report.

Every RFP should be reviewed to ensure it is capturing the specific designs, limitations and expectations within your community. The accompanying Guide through BC Hydro illustrates the difference between what is mandatory and what additional or optional services you may request. For each community is important to understand the deliverable information and whether your community will have sufficient capacity of power through management and conversion in the future to enable heat pumps, cooling, hot water conversions, EV charging, make up air conversions and alternate energy use.

The owners of strata plan, _____ are requesting a proposal for an electrical planning report. The following information includes a summary of our property and the essential services we are seeking. Please contact the strata representative to deliver a proposal package or request an appointment with our strata council and/or manager.
Once a successful company has been selected, the proposed contract will be reviewed by strata council to seek legal advice on the terms and conditions of the contract.

CONTACT INFORMATION

Strata Council Representative/Manager: _____

Phone #: _____Email Address: _____

STRATA CORPORATION DETAILS: Strata Plan Number:_____

Location of the Strata Property (Address):
City: _____

New Westminster, B.C.
604.584.2462

Victoria, B.C.
250.381.9088

Kelowna, B.C.
250.868.1195

Is this a Specified Area with a December 31, 2026 deadline?: YES ☐ NO ☐
Note: a "specified area" includes (a) the Capital Regional District, other than an island within the Capital Regional District that is accessible only by air or boat; (b) the Fraser Valley Regional District; (c) the Metro Vancouver Regional District, other than an island that is accessible only by air or boat.

Type of Building:
Low-rise ☐ Townhouse ☐ High-rise ☐ Bare-land ☐ Residential ☐ Commercial ☐ Mixed use ☐
Total number of units: _____
Total number of buildings: _____
Date of original construction: _____

Documents:
The strata corporation has digital plans and records available Yes ☐ No ☐
Hard copy plans and records are available? Yes ☐ No ☐

ELECTRICAL PLANNING REPORT REQUIREMENTS

Completion Date Requirement: December 31, 2026 ☐ **OR** December 31, 2028: ☐
In order to engage your services, the Electrical Planning Report must meet the following requirements:

Qualified Person
Professional Engineer ☐ Applied Science Technologist ☐ Journeyperson ☐
(Remember, if your strata corporation is not a Part 9 Building you may only engage a Professional Engineer or Applied Science Technologist)

Insurance
Proof of Errors and Omissions insurance: Yes ☐ or No ☐

Relationship Disclosure
Disclosure of the relationship between the company and the strata corporation

Specific Items for the Report
- Current capacity of the strata corporation's electrical system;
- List of existing demands on the electrical system, including EV charging infrastructure, heating and cooling, ventilation, lighting systems and others relevant systems;
- Current peak demand on and spare capacity of the electrical system;
- An estimate of the electrical capacity that would be needed to power systems that are currently powered by an energy source other than electricity for heating, cooling and ventilation;

- An estimate of the electrical capacity needed for any other anticipated future demands on the electrical system, including electrical capacity needed to power
  - heating, cooling, ventilation and other systems that the strata corporation anticipates may be modified or installed in the future, and
  - EV charging infrastructure that the strata corporation anticipates may be installed in the future;
- Peak electrical loads estimated by utility bill regression to supply each of heating, ventilation and hot water by electricity, and lowest cold weather efficiency (COP) assumed for each.
- Steps, if any, that the strata corporation could practicably take to reduce the demands on the capacity of the electrical system;
- Upgrades or modifications, if any, to the electrical system that the strata corporation could practicably undertake to increase the capacity of the electrical system;
- An estimate of the electrical capacity that would be made available if the strata corporation were to take the appropriate steps or undertake upgrades or modifications.

Short Version Report

IF each strata lot in the strata plan is supplied with electricity by a utility independently from each other strata lot, the electrical planning report is only required to include the following information:

- The date of the electrical planning report;
- The name of the person from whom the electrical planning report was obtained and a description of
  - the person's qualifications,
  - the error and omission insurance, if any, carried by the person, and
  - the relationship between the person and the strata corporation;
- A statement that each strata lot is supplied with electricity by a utility independently from each other strata lot.

Additional Items to be included for the Electrical Planning Report

- Confirmation there is sufficient capacity in the grid to meet the future needs or upgrade requirements for the strata corporation, such as EV chargers at each parking stall and heating or cooling for each strata lot;
- Investigate building electrical system for hot spots and fire risks;
- Suggest possible efficiencies to reduce energy consumption, such as conversion to LED lighting or solar installations.
- What is the cost to add an EV ready plan to meet grant and funding programs?

Is your company able to meet the requirements of the legislation and provide a quote to complete the EPR? YES ☐ NO ☐

The Strata Corporation reserves the right to:

- Accept or reject any or all proposals
- Request additional information
- Award components separately or together
- Not award any contract resulting from this RFP

This Sample Request for Proposal is provided to assist strata corporations and property managers in procuring services for Electric Planning Reports. Please consult with a lawyer and planning consultant to ensure it meets all the requirements and conditions for your strata corporation.

- *Do you estimate heating, hot water and ventilation loads by simply converting the existing equipment BTU/h ratings to kW? (... or by using utility weather regression, occupancy and demographics)*
- *Do you assume electric resistance heating as a replacement for gas equipment? (... or cold climate electric heat pumps which can require only ½ the power)?*
- *How many electric cars per charger "L2 EVSE share ratio" do you assume? (...4 to 6)*
- *How will you calculate loads, demand and capacity?*
- Do you use an aggregated load from BC Hydro to estimate the peak electrical demand, or the CEC new construction calculation?

Appendix E: Additional Requirements from Local Governments at the Time of Installation

While not required as part of the EPR, authorities having jurisdiction (AHJs), such as the City of Vancouver, **may** request additional information when new electrical loads are installed. Strata organizations are encouraged to contact their local AHJ at the EPR stage to confirm any additional information requirements, which may help expedite permit review for future planned load additions.

In the City of Vancouver, forms required for the installation of new electrical loads in multi-unit buildings are available at https://vancouver.ca/home-property-development/electrical-permit.aspx.