

Demystifying Decarbonization

A simplified step-by-step guide to electrifying a commercial or multifamily building in British Columbia.

A growing number of property owners and managers, strata councils, affordable housing providers, and others are exploring the idea of electrifying — and, by extension, decarbonizing — their buildings. If that's you and you're contemplating such a project, it's natural to feel overwhelmed. We've broken down the steps to help you understand what to expect along the way.

1

BEGIN WITH THE END IN MIND



Before you dive into the details, consider what success looks like to you and your peers or colleagues. What do you hope to—or need to—accomplish with your building, or portfolio of buildings?

2

TAKE STOCK AND SET PRIORITIES



Next, you'll want to understand your current situation so you can better map out where you need or want to go. You'll learn how much energy your building uses, if you can improve heating, cooling and air quality, how it compares with similar properties, and any equipment you may need to replace soon.

3

FIND OUT YOUR OPTIONS



You'll access resources, supports, and expertise to understand and identify constraints, opportunities, incentives, and financing—and get a handle on options and costs. Depending on your needs, capacity, budget, and comfort level, you might access a program such as the BC Retrofit Accelerator, reach out to your industry association, or retain a consulting engineering firm.

4

FINALIZE YOUR PLAN



Working with your support team and available resources, you'll next settle on the approach, equipment, and timeline that will best deliver on your goal. You'll also access incentives and apply for financing, if needed. Some will want to pursue additional studies to validate their approach.

5

MAKE IT HAPPEN!



With your project funded and equipment specified, your consultant will hand the job off to a contractor, who will order the new equipment, pull permits, and install the units and associated ductwork, vents, wiring, refrigerant lines, and controls. You may have a pre-step here, of an electrical service upgrade, if it was indicated in your energy assessment. You'll have notified tenants and residents of a possible power or water cut, or disruption to common spaces, units, or working spaces.

6

CONFIRM EVERYTHING WORKS



Your commissioning agent (contractor, technologist, or engineer) will then oversee the commissioning of the new system. That is, they'll test, adjust, and optimize the installation to ensure that it operates as expected. This will involve testing individual elements—such as heat pumps, fans, dampers, sensors, and control panels—and so on, and then running them all together to ensure they all regulate temperature, airflow, and humidity.

7

TAKE STOCK, CELEBRATE, AND PLAN YOUR NEXT MOVE



After a few months, or a season of operation, you'll likely want to take stock of where you stand relative to your goal. Benchmark your building again, to get the data on how closely its performance matches expectations. Survey your residents or tenants to understand their experiences and perceptions of comfort. And finally, consider sharing your experience with others in your sector to inform their own decarbonization projects.

For building electrification resources, advice, case studies, and more, visit

BCRetrofitAccelerator.ca