



## FortisBC Design Offer

### OVERVIEW

FortisBC's Design Offer is available to builders pursuing Step 3, 4 or 5 and is intended to encourage processes that will reduce builder time and risk when building high-performance homes. In this pursuit, builders may be required to work with a variety of consultants, including building science and mechanical design specialists. The Design Offer will help offset the costs of engaging consultants to identify cost-effective opportunities and innovations.

This offer is to support early planning for building envelope consultants, mechanical design and/or IDP (Integrated Design Process). Builders can choose to participate in one, two or all three elements of the offer and receive up to \$7,000 to reimburse the cost of the consultants hired to complete the work. The incentive is available per detached home or unique unit in a multi-family complex (up to \$50,000 in multi-family projects).

The three elements of the offer are:

- (1) Integrated Design Process: \$1,000 rebate, must use a pre-approved IDP facilitator.
- (2) Envelope Design and
- (3) Mechanical Design: up to \$6,000 in rebates, must use a building science consultant and/or mechanical design specialist.

Builders will also be able to access FortisBC's rebates through the existing New Home program, which includes a \$4,000 incentive for Step 3, \$6,000 for Step 4 and a \$10,000 incentive for Step 5.

### ELIGIBILITY

New construction projects must be located in the FortisBC service territory and meet the following criteria:

- Project is at the early design stage (prior to permit application),
- Design assistance is provided to optimize building envelope, mechanical systems and/or IDP,
- Building design can be modified to enhance the effectiveness of the mechanical system and/or the building envelope to improve the overall energy efficiency of the home,
- FortisBC energy source provides the primary heat for space and domestic water heating.

## DESIGN OFFER ELEMENTS

### *Envelope Design*

Encourages an envelope first approach. Architects and designers can have an important impact on the project by optimizing the envelope for energy performance and lower construction costs.

#### Deliverables:

- Envelope plans/assembly details
- Effective insulation (RSI) calculations for each assembly used in the home
- Details of areas with significant thermal bridges and how to address them
- Airtightness details demonstrating a continuous air barrier

### *Mechanical Design*

Energy consultants are engaged to conduct heating and cooling load calculations, which conform with CSA F280 to lead to a better HVAC design. Carrying out CSA F280-12 heat loss/gain analysis will right size heating and cooling systems, improve comfort and can reduce cost. Following these best practices can help homeowners and builders avoid the issues with HVAC equipment oversizing.

A complimentary subscription for the CSA F280 software will be available for the mechanical designer.

#### Deliverables:

- Room-by-room heating and cooling load calculations compliant with CSA-F280
- Mechanical design plans including detailed equipment schedule
- Start-up report that includes manufacturer requirements and best practices from TECA or HRAI industry associations (provided by mechanical system designer)

### *IDP (Integrated Design Process)*

Integrated Design Process (IDP) is a collaborative design approach that is intended to optimize performance, cost, occupant comfort and resilience of a residential building. It involves engaging the builder and their team – including the designers, mechanical contractor, energy advisor, plumber, electrician, framer and insulator – at an early design stage. IDP examines the needs and performance of a building throughout its lifecycle with the goal to ensure the objectives of the builder are met.

#### Deliverables:

- A report which summarizes the following:
  - Project overview (project location, housing type, number of units, construction timelines)
  - Attendees of visioning and charrette workshops
  - Visioning session and charette notes
  - Observations of performance benchmarking activities
  - Modelling and design optimization results
  - Proposed solutions
  - Lessons learned, key strategies and knowledge derived from the process of performing envelope and mechanical design, and/or IDP.
- If building to Step 3, the report will also include a summary of the steps required to reach Step 4 or 5.

## HOW TO APPLY

Contact the New Home Program at [NewHome@fortisbc.com](mailto:NewHome@fortisbc.com) for further details and to obtain an application form.

# FortisBC Design Offer

## Resource List

Choosing the right consultant is the first step toward starting an energy-efficient new construction. The following design consultants can help builders pursuing Step 3, 4 or 5 to help encourage processes that will reduce time and risk while still creating high-performing homes more effectively and efficiently.

To participate in the New Home Program - Design Offer, builders are required to work with a Mechanical HVAC Designer and/or a Building Envelope Specialist.

Recognizing mechanical and building envelope design may be new to some builders, this resource list serves as a starting point to identify individuals or organizations that work in these fields. Builders are not required to work with the companies listed here to participate in the Design Offer. When hiring a design consultant, it's a good practice to look for their certifications, credentials and confirm they can meet the Design Offer deliverables.

Confirm the project eligibility by reading the terms and conditions [here](#).

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### Disclaimer

*FortisBC, not being the builder/developer, designer, manufacturer, provider or installer of the appliances, products or equipment, makes no representation or warranty whatsoever as to the safety or fitness of, the necessity for, the quality of workmanship of, or the energy efficiency/savings of, any appliance, product, equipment or service or skill of any contractor or energy advisor.*

## Mechanical HVAC Designer

Companies listed below have met at least one of the following criteria:

- Engineers and Geoscientists British Columbia
- Red Seal (Gasfitter Class B or Refrigeration and Air Conditioning Mechanic)
- Completed all HRAI/TECA courses and use a Heat Loss/Heat Gain software

COMPANY NAME	LOCATION	PHONE NUMBER	WEBSITE
Acacia Engineering Ltd.	Calgary	403-245-2200	<a href="http://acaciaengineering.ca">http://acaciaengineering.ca</a>
Alphatec Energy Inc.	North Vancouver	604-771-5886	<a href="mailto:rasoulivan@gmail.com">rasoulivan@gmail.com</a>
BMAC Technologies and Consulting Inc	New Westminster	604-544-7564	<a href="https://www.bmactc.com/">https://www.bmactc.com/</a>
Building & Environment Engineering Inc	Ontario	519-856-9916	<a href="mailto:rlay@explornet.com">rlay@explornet.com</a>
Canadian Aerothermal	Penticton	1-877-663-6472	<a href="https://canadianaerothermal.ca/">https://canadianaerothermal.ca/</a>
Chen Consulting Ltd	Burnaby	604-629-6755 604-722-4895	<a href="https://www.chenconsulting.ca">https://www.chenconsulting.ca</a>
Ecolighten	North Vancouver	604-971-2088	<a href="https://www.ecolighten.com/">https://www.ecolighten.com/</a>

COMPANY NAME	LOCATION	PHONE NUMBER	WEBSITE
Energy 1 Services	West Vancouver	1-844-488-3700	<a href="https://www.energy1services.com/">https://www.energy1services.com/</a>
Enforma Engineering Inc	Kelowna	778-363-0401	<a href="http://enforma.ca">http://enforma.ca</a>
Falcon Engineering Hayley Shearer	Kelowna	250-762-9993	<a href="http://www.falcon.ca">http://www.falcon.ca</a>
GeoTility Geothermal Installations Corp.	Kelowna	250-762-5776	<a href="http://www.geotility.com">http://www.geotility.com</a>
HVAC Systems & Solutions Ltd.	Port Coquitlam	604-944-9222	<a href="https://www.hvacsystems.ca">https://www.hvacsystems.ca</a>
Infinity Solutions	Cranbrook	250-464-0632	<a href="http://www.infinitysolutionseng.ca">http://www.infinitysolutionseng.ca</a>
IRC Building Sciences Group	Richmond	604-295-8070	<a href="https://www.ircgroup.com/en">https://www.ircgroup.com/en</a>
Jade West Engineering Co. Ltd.	Surrey	604-671-5023	<a href="https://www.jadewest.com">https://www.jadewest.com</a>
Micah's Plumbing & Heating Ltd.	Nelson	250-551-4920	<a href="mailto:mpplumbing1@hotmail.com">mpplumbing1@hotmail.com</a>
McCuaig & Associates Engineering Ltd.	Vancouver	604-255-0992	<a href="https://www.mccuaig.net">https://www.mccuaig.net</a>
Our Energy	Vancouver	778-939-4388	<a href="https://www.ourenergyadvising.com">https://www.ourenergyadvising.com</a>
Patan Heating & Air Ltd.	Penticton	250-462-5224	<a href="mailto:patanheating@gmail.com">patanheating@gmail.com</a>
Ptero Sadr Corporation	Port Coquitlam	604-474-0414 604-446-1123	<a href="https://www.petrosadr.ca">https://www.petrosadr.ca</a>
Quality Air Care Heating & Air Conditioning Ltd.	Kelowna	250-862-9063	<a href="http://qualityaircare.ca">http://qualityaircare.ca</a>
STEP 5 Solutions	Burnaby	604-616-6001	<a href="mailto:info@batta.ca">info@batta.ca</a>
TAG Engineering	Surrey	604-564-6800	<a href="http://www.tagengineering.ca">http://www.tagengineering.ca</a>
Verdatech Energy Management & Consulting	Calgary	403-251-0683	<a href="http://www.energyexperts.ca/">http://www.energyexperts.ca/</a>

### Building Envelope Specialist

The companies listed below are a member of at least one of the following organizations:

- Architectural Institute of British Columbia
- Applied Science Technologists & Technicians of British Columbia
- Engineers and Geoscientists British Columbia
- Royal Architectural Institute of Canada

COMPANY NAME	LOCATION	PHONE NUMBER	WEBSITE
APEX Building Science Inc	Abbotsford	604-575-8220	<a href="https://apexbuildingsciences.com/">https://apexbuildingsciences.com/</a>
A TEC Building Envelope Consulting	West Vancouver	778-288-4959	<a href="https://atecconsulting.com/">https://atecconsulting.com/</a>
BAR Engineering Co. Ltd.	Vernon	250-681-1844	<a href="https://www.bareng.ca">https://www.bareng.ca</a>
BC Building Science	New Westminster	604-520-6456	<a href="https://bcbuildingscience.com/">https://bcbuildingscience.com/</a>
Best West Engineers Ltd	Coquitlam	604-492-4559	<a href="https://www.bwengs.com/">https://www.bwengs.com/</a>
Bluegreen Architecture Inc	Kamloops	250-374-1112	<a href="https://www.bluegreenarchitecture.com/">https://www.bluegreenarchitecture.com/</a>
BMAC Technologies and Consulting Inc	New Westminster	604-544-7564	<a href="https://www.bmactc.com/">https://www.bmactc.com/</a>
Building Envelope Engineering Inc.	Calgary	403-861-4044	<i>Email: david@beei.ca</i>
Detailed Inspections & Energy Advising	Kamloops	250-574-3449	<a href="http://www.detailinspections.ca">http://www.detailinspections.ca</a>

COMPANY NAME	LOCATION	PHONE NUMBER	WEBSITE
EXP services inc	Burnaby	604-874-1245	<a href="http://www.exp.com">http://www.exp.com</a>
Berry Architecture + Associates	Reed Deer	403-357-7349	<a href="http://www.berryarchitecture.ca">http://www.berryarchitecture.ca</a>
Hamid Design Build Ltd	Burnaby	604-603-3142	<a href="https://www.hamiddesignbuild.com/">https://www.hamiddesignbuild.com/</a>
Harold Engineering	Nanaimo	250-751-8558	<a href="https://www.heroldengineering.com/">https://www.heroldengineering.com/</a>
i3 Building Science and Consulting Inc.	Coquitlam	604-306-7505	<a href="https://www.i3bsc.com">https://www.i3bsc.com</a>
Inspired Architecture	North Vancouver	604-773-1015	<a href="https://www.inspiredarchitecture.ca/">https://www.inspiredarchitecture.ca/</a>
IRC Building Sciences Group	Richmond	604-295-8070	<a href="https://www.ircgroupp.com/en">https://www.ircgroupp.com/en</a>
JRS Engineering	Burnaby	778-386-3298	<a href="https://www.jrsengineering.com/">https://www.jrsengineering.com/</a>
McCuaig & Associates Engineering Ltd	Vancouver	604-255-0992	<a href="https://www.mccuaig.net">https://www.mccuaig.net</a>
Measured Architecture Inc.	Vancouver	604-737-0235	<a href="https://measured.ca/">https://measured.ca/</a>
Meiklejohn Architectural Design Studio Inc	Penticton	250-492-3143	<a href="https://www.madstudio.ca/">https://www.madstudio.ca/</a>
Method Engineering and Building Services	Victoria	250-590-1999	<a href="http://www.methodengineering.ca/">http://www.methodengineering.ca/</a>
Peakflow Energy Solutions Ltd	Comox	778-228-4828	<a href="https://www.gopeakflow.com/">https://www.gopeakflow.com/</a>
NIDO Design Inc.	Kelowna	250-448-4307	<a href="http://www.nido.design/">http://www.nido.design/</a>
Qualistat Building Envelope Consultants	Calgary	403-457-7828	<a href="http://qualistat.com">http://qualistat.com</a>
R340 Enterprises	Kelowna	250-862-6400	<a href="https://inspectit.org/">https://inspectit.org/</a>
Rathco ENG Ltd.	Kelowna	250-300-9612	<a href="https://rathco.pro/">https://rathco.pro/</a>
RDH Building Science Inc.	Burnaby	604-873-1181 ext.107	<a href="https://www.rdh.com/">https://www.rdh.com/</a>
Read Jones Christoffersen Ltd	Vancouver	604-738-0048	<a href="https://www.rjc.ca/">https://www.rjc.ca/</a>
Richard Kadulski Architect	Vancouver	604-689-1814	<a href="mailto:kadulski@direct.ca">kadulski@direct.ca</a>
Sense Engineering	North Vancouver	604-319-5661	<a href="https://senseengineering.com/">https://senseengineering.com/</a>
Spratt Emanuel Engineering Ltd.	Vancouver	604-872-1211	<a href="https://sprattmanuel.com/">https://sprattmanuel.com/</a>
Strata engineering	Burnaby	604-780-1316	<a href="https://strataengineering.ca/">https://strataengineering.ca/</a>
Studio 9 Architecture + Planning Inc.	Nelson	250-354-3959	<a href="http://studio9architecture.com/">http://studio9architecture.com/</a>
Susanna Houwen Architect	Vancouver	604-836-7749	<a href="http://www.susannahouwen.com/">http://www.susannahouwen.com/</a>
Tri-Can Consulting Ltd	Vancouver	604-449-7789	<a href="http://www.tccltd.ca/">http://www.tccltd.ca/</a>
urbanSTIX Architecture Inc.	Fernie	250-423-8800	<a href="https://urbanstix.ca/contact">https://urbanstix.ca/contact</a>
Vancouver Engineering and Consulting	Vancouver	778-319-3403	<a href="https://vancouvereng.ca/">https://vancouvereng.ca/</a>