

# New Home Program



## Design Offer

Building a high-performance home can take more time than building a standard one. That's why we introduced our Design Offer rebate of up to **\$7,000** per home. It's available when pursuing BC Energy Step Code 4 or 5. To participate, you'll need to work with a variety of consultants, including building science and mechanical design specialists.

## The rebate

The Design Offer supports early planning for building envelope consultants, mechanical design and/or Integrated Design Process (IDP). You can choose to participate in one, two or all three elements of the offer and receive up to **\$7,000** toward the cost of hiring consultants to complete the work. The rebate is available per detached home, or for each unique floorplan in a multi-family complex (to a maximum of **\$50,000** per complex).

## The three elements of the Design Offer rebate are:

Elements	Rebate
Integrated Design Process (must use a pre-approved IDP facilitator)	\$1,000
Envelope design (must use a building science consultant)	Up to \$6,000 combined
Mechanical design (must use a mechanical design specialist)	

## Eligibility requirements

New home construction projects must be located in FortisBC's service area and meet the following criteria:

- The project is in the early design stage (prior to permit application).
- Design assistance is provided to optimize building envelope, mechanical systems and/or IDP.
- The 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.

## Design Offer elements

### Envelope design

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

Deliverables include:

- 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 ensure properly sized heating and cooling systems, improve comfort and help 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 include:

- mechanical design plans including detailed equipment schedule
- a start-up report that includes manufacturer requirements and best practices from TECA or HRAI industry associations (provided by mechanical system designer)

## Integrated Design Process (IDP)

The IDP is a collaborative design approach intended to optimize performance, cost, occupant comfort and resilience of a residential building. It involves engaging the builder and their team—including designers, mechanical contractors, energy advisors, plumbers, electricians, framers and insulators—early in the design stage. IDP examines the needs and performance of a building throughout its lifecycle with the goal of ensuring the objectives of the builder are met.

The deliverable is a report summarizing the following:

- project overview (project location, housing type, number of units, construction timelines)
- attendees of visioning and charrette workshops
- visioning session and charrette 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.
- a summary of the steps required to reach Step 4 or 5

## How to apply

For more details and to apply, contact the New Home Program team at [newhome@fortisbc.com](mailto:newhome@fortisbc.com).

Connect with us @fortisbc



## **Resource List**

Choosing the right consultant is the first step towards starting an energy-efficient new construction. The following design consultants can help builders pursue Steps 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, and credentials and confirm they can meet the Design Offer deliverables.

### **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.

***Listings on the next page***

## Qualified Integrated Designed Process Facilitators

The following individuals have successfully completed and qualified to be recognized as Canadian Association of Consulting Energy Advisors (CACEA) Integrated Design Process (IDP) Facilitators

The IDP is a collaborative approach to building design, construction, and operation. With the guidance of a qualified IDP Facilitator, the process promotes innovative thinking where builders, renovators, contractors, trades, and homeowners find 'ideal' and smart building solutions.

CACEA's IDP Facilitation training included classroom training on the IDP; facilitation skills, and documentation requirements in addition to observing how candidates apply and deliver on the requirements of an IDP facilitator.

Company Name	First	Last	City	Province	Email
A&J Energy Consultants	Jack	Zhou	Kitchner	ON	jack@ajec.ca
ARG Energy	Ross	Gordon	Sechelt	BC	ross@argenergy.ca
Bernhardt Consulting	Mark	Bernhardt	Victoria	BC	energy@bernhardtcontracting.com
Bow Crow Design	Kim	Walton	Sundre	AB	kim@bowcrow.com
Building Knowledge Canada	Mark	Rosen	West Vancouver	BC	mark.rosen@buildingknowledge.ca
Capital Home Solutions	Luke	Dolan	Vancouver	BC	luke@capitalhomeenergy.com
E3 Eco Group	Emma	Conway	Burnaby	BC	emma@e3ecogroup.com
E3 Eco Group	Einar	Halbig	Burnaby	BC	einar@e3ecogroup.com
Ecosynergy	Amelie	Caron	Airdrie	AB	acaron@ecosynergy.ca
Egnite Sustainability Inc.	Brendon	Gray	Kelowna	BC	brendon@egnite.ca
Green Canada Home Advisors	Shahin	Arvandi	North Vancouver	BC	Arvandi.shahin@gmail.com
Homesol Building Solutions Inc.	Stephen	Magneron	Perth	ON	smagneron@homesol.ca
NRG Inspections and Consulting	Rene	Kreutzwieser	Saskatoon	SK	kreutzwieser.rene@gmail.com
ROV Consulting Inc.	Bahareh	Reza	Kelowna	BC	bahar@rovconsulting.ca
Shoreline Building Performance	Andreas	Gagnier	Nanaimo	BC	andreas@shorelinebp.ca
Shoreline Building Performance	Brett	Tracy	Kelowna	BC	brett@shorelinebp.ca
Sol Invictus Energy Services	Chelsah	Thomas	Lacombe County	AB	chelsah@sies.energy
Total Home Solutions	Gilles	Lesage	Kelowna	BC	gilles@totalhome.ca

## Mechanical HVAC Designer

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

Engineers and Geoscientists in 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="http://www.bmactc.com">http://www.bmactc.com</a>
Building & Environment Engineering Inc	Ontario	519-856-9916	<a href="mailto:rlay@xplornet.com">rlay@xplornet.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="http://www.chenconsulting.ca">http://www.chenconsulting.ca</a>
Ecolighten	North Vancouver	604-971-2088	<a href="http://www.ecolighten.com">http://www.ecolighten.com</a>
Energy 1 Services	West Vancouver	1-844-488-3700	<a href="https://www.energy1services.com">https://www.energy1services.com</a>
Enforma Engineering	Kelowna	778-363-0401	<a href="https://enforma.ca">https://enforma.ca</a>
Epro Consultants Ltd.	Abbotsford	778-242-8111	<a href="https://eproconsultants.ca">https://eproconsultants.ca</a>
Falcon Engineering/Hayley Shearer	Kelowna	250-762-9993	<a href="https://falcon.ca">https://falcon.ca</a>
GeoTility Geothermal Installations Corp	Kelowna	250-762-5776	<a href="https://www.geotility.com">https://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="https://infinitysolutionseng.ca">https://infinitysolutionseng.ca</a>
IRC Building Sciences Group	Richmond	604-671-5023	<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:micah@micahsplumbing.com">micah@micahsplumbing.com</a>
Madonald Mechanical Inc.	Kelowna	250-681-2600	<a href="https://www.macdonaldmechanical.ca">https://www.macdonaldmechanical.ca</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:info@patanheating.com">info@patanheating.com</a>
Peakflow Energy Solutions	Comox	778-228-4828	<a href="https://www.gopeakflow.com">https://www.gopeakflow.com</a>
Petro Sadr Corporation	Port Coquitlam	604-474-0414/604-446-1123	<a href="http://petrosadr.ca">http://petrosadr.ca</a>
Quality Air Care Heating & Air Conditioning Ltd.	Kelowna	250-862-9063	<a href="https://qualityaircare.ca">https://qualityaircare.ca</a>
Rocky Point Engineering	Langley	604-379-6193	<a href="mailto:Richard.Corra@rpeng.ca">Richard.Corra@rpeng.ca</a>
Step 5 Solutions	Burnaby	604-616-6001	<a href="mailto:info@batta.ca">info@batta.ca</a>
Station Craft Building Optimization	Kelowna	250-686-2879	<a href="https://stationcraft.ca">https://stationcraft.ca</a>
TAG Engineering	Surrey	604-564-6800	<a href="https://www.tagengineering.ca">https://www.tagengineering.ca</a>
Vision Mechanical Ltd.	Kelowna	250-470-9552	<a href="http://visionplumbingandheating.com">http://visionplumbingandheating.com</a>

## Building Envelope Specialist

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 in 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>
ATEC Building Envelope Consulting	West Vancouver	778-288-4959	<a href="https://atecconsulting.com">https://atecconsulting.com</a>
BAR Engineering Co. Ltd	Vernon	604-681-1844	<a href="http://www.bareng.ca">http://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="http://www.bwengs.com">http://www.bwengs.com</a>
Bluegreen Architecture Inc	Kamloops	250-374-1112	<a href="http://www.bluegreenarchitecture.ca">http://www.bluegreenarchitecture.ca</a>
BMAC Technologies and Consulting Inc	New Westminster	604-544-7564	<a href="http://www.bmactc.com">http://www.bmactc.com</a>
Bow Crow Design	Sundre	403-638-1341	<a href="https://bowcrow.com/">https://bowcrow.com/</a>
Building Envelope Engineering Inc.	Calgary	403-861-4044	<a href="mailto:david@beei.ca">david@beei.ca</a>
Detailed Inspections & Energy Advising	Kamloops	250-574-3449	<a href="http://www.detailinspections.ca">http://www.detailinspections.ca</a>
Dubas Engineering Inc	Burnaby	604-875-1930	<a href="http://www.dubasengineering.com">http://www.dubasengineering.com</a>
Enforma Engineering	Kelowna	778-873-3177	<a href="http://enforma.ca">http://enforma.ca</a>
EXP services Inc	Burnaby	604-874-1245	<a href="http://www.exp.com">http://www.exp.com</a>
Berry Architecture & Associates	Red 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="http://www.hamiddesignbuild.com">http://www.hamiddesignbuild.com</a>
Herold Engineering	Nanaimo	250-751-8558	<a href="http://www.heroldengineering.com">http://www.heroldengineering.com</a>
i3 Building Science and Consulting Inc.	Coquitlam	604-306-7505	<a href="http://www.i3bsc.com">http://www.i3bsc.com</a>
Inspired Architecture	North Vancouver	604-773-1015	<a href="http://www.inspiredarchitecture.ca">http://www.inspiredarchitecture.ca</a>
IRC Building Sciences Group	Richmond	604-295-8070	<a href="http://www.ircgroupp.com/en">http://www.ircgroupp.com/en</a>
JRS Engineering	Burnaby	778-386-3298	<a href="http://www.jrsengineering.com">http://www.jrsengineering.com</a>
McCuaig & Associates Engineering Ltd.	Vancouver	604-255-0992	<a href="http://www.mccuaig.net">http://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="http://www.madstudio.ca">http://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="http://www.gopeakflow.com">http://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	250-86206400	<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="http://www.rdh.com">http://www.rdh.com</a>
Read Jones Christoffersen	Vancouver	604-738-0048	<a href="http://www.rjc.ca">http://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>
Station Craft Building Optimization	Kelowna	250-686-2879	<a href="https://stationcraft.ca">https://stationcraft.ca</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>