

Green Leagues Preferred Contractors List

Solar PV Contractors

- **Vital Group of Companies: Generate Energy**

The Vital Group of Companies is the consolidation of several Alberta-based companies with expertise in energy engineering, energy management, renewable energy, and project delivery. In 2018 Vital Engineering, 3D Energy and Generate Energy were formally consolidated under a single corporate structure known as the Vital Group of Companies.

To deliver their vision of Making the Integration of Sustainable Energy Easily Attainable, their team collaborates to diagnose, develop, and deliver sustainable energy solutions that range from efficient building design and leading energy management practices through to various behind-the-meter energy generation technologies and medium to large scale community energy systems. The Vital Group offers the following six (6) core pillars of service:

- Project Development & Feasibility (i.e. cash flow projections, financial analysis)
- Program & Policy Support (i.e. technical guideline development, stakeholder engagement)
- Project Planning (i.e. mechanical/electrical engineering, energy audits, technology assessments)
- Project Finance (i.e. capital acquisition and structuring, lifecycle asset management)
- Project Delivery (i.e. permitting/approvals, solar PV installation, construction management)
- Ongoing System Operations (i.e. O&M support, M&V implementation, system monitoring)

Fundamental to delivering on the Vital Group vision is the ability to integrate various components of these core service pillars to provide a holistic approach to supporting the sustainability and energy needs of our customers. In practice, this means that our employees and subject matter experts are often collaborating on cross-functional teams. Today, the Vital Group is comprised of close to 50 employees with a broad spectrum of expertise that goes beyond technical knowledge in sustainable energy design and practices, but also includes energy program and policy support and energy market analysis/project finance.

Generate Energy is the electrical contractor of the Vital Group of Companies. Generate is focused on providing solar PV installations throughout Alberta, and has also worked significantly in designing, and installing LED lighting retrofits. As the demand for electric cars has increased, Generate Energy has also begun installing both charging stations, at battery storage systems

more frequently. Generate also provides guidance to both Vital Engineering and 3D Energy on renewable energy recommendations and lighting designs.

Generate Energy has worked with several Community Leagues across Edmonton, including the installation of a 16 kW solar PV system on Inglewood Community League's hall in 2019. They have worked extensively in the Not-for-Profit organizations across Alberta. Most notably, Generate Energy and the rest of VGOC have done tremendous work with Alberta First Nations and Metis communities.

Certifications:

- Certificate of Recognition (COR) for Health and Safety
- Solar Energy Society of Alberta (SESA)
- The Association of Professional Engineers and Geoscientists of Alberta (APEGA)
- Association of Energy Engineers (AEE)
- The Association of Science and Engineering Technology (ASET)
- Surety bonding available if required

Contact Information:

Brandon Sandmaier, Operations Manager
Generate Energy, Vital Group of Companies
#160, 2121 Premier Way, Sherwood Park, Alberta, T8H 0B8
Phone: (780) 328-4760 | Email: bsandmaier@generateenergy.ca
<https://vgoc.ca/generate-energy/>

- **Evergreen and Gold Renewable Energy**

Evergreen & Gold Renewable Energy is a full-service solar power provider in the Edmonton area with over 10 years of experience. They offer full turn-key customized solar solutions for residential, commercial and agricultural energy needs. If you're interested in a roof-mounted system, ground array, building-integrated PV or shade arrays, Evergreen and Gold guarantees a personalized service. In 2018, they delivered a full business case study for Lakeland College and can also offer energy and financial auditing.

Evergreen & Gold Renewable Energy has worked with several Community Leagues across Edmonton, including Evansdale, Queen Alexandra and Alberta Avenue. As an energy conservation measure, they installed monitoring equipment to complement the solar PV system for Evansdale Community League.

Evergreen & Gold Renewable Energy is recognized by SESA, CanSIA and Built Green Canada.

References:

Jeff Muiselaar, President, Evansdale Community League
Kenneth Robinson, President, Queen Alexandra Community League

Contact Information:

Warren Sarauer
Evergreen & Gold
Renewable Energy Unit 101, 4508
121 Avenue Edmonton, Alberta T5W
2V1
Phone: 780-429-4731 Fax:
780-429-4732
www.evergreenandgold.ca

- **Great Canadian Solar**

Great Canadian Solar is a 100% Alberta owned electrical contracting company specializing in the installation and engineering of grid-connected and grid isolated photovoltaic (PV) power systems. With over 10MW of solar PV experience, Great Canadian Solar is one of the largest solar PV installers in Alberta. Great Canadian Solar proudly offers Turn-Key solutions for their clients which include handling all design, engineering, permitting, regulatory approvals, equipment procurement, installation and commissioning services. *GCS has extensive experience applying for grants at all levels of government for their clients.*

As EV's continue to be adopted in large numbers the need for charging stations will also accelerate. The average use of an electric vehicle requires ~4kW of solar to offset the energy consumption of an EV in a year. This means with 1MW, 250 EVs can be charged for an entire year! Great Canadian Solar is proud to offer services such as carport canopies and EV charging stations to meet the needs of the owner.

Great Canadian Solar takes pride in fitting the ideal system to their customers' needs. This means offering standard systems meant just for energy generation purposes to premium systems that can complement the aesthetics of a facility.

Great Canadian Solar has completed the design and installation of solar PV systems for several Edmonton Community Leagues and Alberta not-for-profit organizations, including a 14.03 kW grid-tied rooftop solar PV array on Belgravia Community League Hall, a 30.78 kW solar PV array on Ridgewood Community League Hall, and a 23 kW grid-tied flat roof ballasted solar PV array on Crestwood Community League Hall.

Certifications:

- Certificate of Recognition (COR) for Health and Safety
- Association of Engineering Technologists (ASET)
- Solar Energy Society of Alberta (SESA)

Contact:

Great Canadian Solar
11619 145 Street NW, Edmonton, AB, T5M 1V9
Phone: (780) 455-7277 | Email: info@greatcanadiansolar.com
<http://www.greatcanadiansolar.com/>

- **SkyFireEnergy**

In operation since 2001, SkyFireEnergy is Western Canada's largest solar PV providers, with over 600 solar systems completed to date. Housing a team of experienced professional engineers, SkyFire ensures high-quality installations assembled with products made by highly vetted manufacturers, ensuring long-term honouring of warranties. SkyFire has worked hard to provide customers with the absolute best value possible – premium PV solutions, professionally designed and installed with the best in customer service.

Since 2001, SkyFireEnergy has installed more than 13 MW of solar PV and is responsible for operations and maintenance on the 10 MW Brooks Solar Farm, currently the largest utility-scale solar system in Alberta. With 18 years of operation and 200 years of combined solar experience at their disposal, SkyFire promises to be around for the long haul, continuing to provide support for existing installs.

Sky Fire Energy has worked with several community-based not-for-profit organizations in the past. In 2018, Sky Fire Energy installed an 8.4 kW solar array on the roof of Glenora Community League's outdoor rink shack. The Array powers the rink shack as well as the community hall next to it. They installed a 10.71 kW roof-top array for the Richmond Knob Hill Community Association in Calgary, AB. They have also installed roof-mounted arrays on St. Paul's United Church in Edmonton, as well as Wildwood Mennonite Church in Saskatoon, SK, and the Horizon Housing complex in Calgary. Sky Fire Energy also provides financial support for Light Up The World, a not-for-profit organization committed to bringing electricity to rural communities in South America where residents lack access to a reliable electrical supply, as well as to Heart and Solar, a not-for-profit that works to provide solar energy for charitable organizations across Canada.

Certifications:

- Certificate of Recognition (COR) for Health and Safety
- Corporate II members of CanSIA
- Solar Energy Society of Alberta (SESA)
- Association of Professional Engineers and Geoscientists in Alberta (APEGA)
- ComplyWorks
- Tesla Powerwall Certified Installer
- Certified Amicus Installer
- Surety bonding available if required

Contact:

SkyFireEnergy
14515 121A Ave NW, Edmonton, AB, T5L 2T2
Phone: (780) 474-8992 | Fax: (888) 405-5843 | Email: info@SkyFireEnergy.com
<http://www.SkyFireEnergy.com/>

Energy Assessment Contractors

- **Carbon Busters Environmental Consultants & C>Returns Inc.**

Carbon Busters is a long-standing consulting firm of over 27 years and has been in the energy efficiency and renewable energy field with projects in Europe, the US and Canada. Carbon Busters holds a builder license and designs and builds new net zero buildings and zero carbon sustainable communities and offers ASHRAE Level 2 Audits to community leagues in partnership with C>Returns, a federally incorporated non-profit.

C>Returns is a federally registered non-profit corporation since 2011 that operates on a triple bottom line basis, seeking to provide financial, social and environmental returns. C>Returns holds a prepaid contractor license and acts as the project manager for projects involving energy assessments, solar PV design and installations and energy efficiency and renewable energy retrofits.

In addition to a full ASHRAE Level 2 Audit (energy assessment) performed by Carbon Busters, C>Returns provides a detailed cost-benefit analysis of proposed upgrade measures, identifying the most important sources of efficiency gain, the highest dollar savings, and the best returns on investment (ROI), identifying the most effective investment opportunities to maximize both ROI and CROI (carbon return on investment).

Carbon Busters has a diverse and experienced team of consultants to handle any energy management project, with a diverse skill set including mechanical engineering, architecture, HVAC specialty, alternative energy technology, and net zero energy specialty. They have worked on over 370 buildings to reduce net emissions by almost 76,000 metric tonnes of CO₂ equivalent for a net savings to their clients of over 26 million dollars. They have performed energy assessments on Cloverdale, Riverdale, Alberta Avenue, Meadowlark, Ritchie, West Jasper Sherwood, Rossdale and North Glenora Community Leagues, and have even performed an ASHRAE level 2 audit on the EFCL offices. Carbon busters has worked extensively in the public and not-for-profit sectors and is experienced in dealing with the unique needs of Community Leagues.

Contact:

C>Returns Inc.
11340 79th Avenue NW, Edmonton, AB, T6G 0P3
Phone: 780.437.0023/780.429.4114 | Fax: 780.669.3900
Email: contact@carbonbusters.org
<http://www.carbonbusters.org>

● Vital Group of Companies: 3D Energy

The Vital Group of Companies is the consolidation of several Alberta-based companies with expertise in energy engineering, energy management, renewable energy, and project delivery. In 2018 Vital Engineering, 3D Energy and Generate Energy were formally consolidated under a single corporate structure known as the Vital Group of Companies.

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3D Energy is an energy-centric engineering and project development consulting firm with a mission to turn energy challenges into opportunities. This is achieved by diagnosing energy challenges and opportunities, developing pragmatic solutions that are technically feasible and financially viable, and delivering projects that achieve results. The 3D Energy team has completed energy audits (ASHRAE Levels 1, 2 & 3) and modelling across a vast portfolio of municipal, institutional, commercial and industrial clients, including studies across a broad portfolio of building/facility types. They have an extensive field services team comprised of energy engineers and technologists with decades of experience in completing energy audits and modelling for various purposes, including to support green building certifications such as BOMA BEST and LEED.

3D Energy and other VGOC staff have completed 14 energy assessments on Edmonton Community League facilities, 76 ASHRAE Level 2 audits and 76 energy management plans on not-for-profits through MCCAC's NEET program and complete 2 LED lighting assessments and retrofits on Evansdale Community League Hall and Avonmore Community League Hall.

Certifications:

- Certificate of Recognition (COR) for Health and Safety
- The Association of Professional Engineers and Geoscientists of Alberta (APEGA)
- Association of Energy Engineers (AEE)
- The Association of Science and Engineering Technology (ASET)
- Alberta Energy Efficiency Alliance (AEEA)
- Canadian Green Building Council (CaGBC)
- Natural Resources Canada (NRCan)

Contact Information:

Adam Trovato, Operations Manager
3D Energy, Vital Group of Companies
160, 2121 Premier Way, Sherwood Park, Alberta, T8H 0B8
Phone: (587) 400-6848 | Email: ATrovato@3DEnergy.ca
<https://vgoc.ca/3d-energy/>

● **Revolve Engineering**

Revolve Engineering specializes in net zero building consulting, energy modelling, energy audits, and the design of renewable mechanical systems for Residential and Commercial buildings. While their background includes traditional HVAC design, they focus only on renewable systems which include geothermal, solar thermal, solar PV, heat recovery and other sustainable technologies. Their expertise in both traditional and renewable systems allows them to understand and integrate renewable systems into almost any existing or traditional building design. Their experience in green building design, as well as traditional HVAC and energy modelling, gives them a unique look at how each building component affects the other. They use this unique perspective to influence the design and optimization of the building, helping their clients reach their energy targets.

Revolve Engineering specializes in sustainable building consulting and the design of renewable mechanical systems for Commercial and Residential buildings. Below is a list of their offered services:

- Green Building Consulting & Planning
- Net Zero Building Design
- Geothermal System Design
- Geothermal System Feasibility and Payback Analysis
- Geothermal System Troubleshooting
- Building Energy Audits (Ashrae Level I and II)
- Feasibility and Life Cycle Cost Studies
- Low Temperature District Energy System Design
- Building Energy Modelling
- Building Energy Modelling for LEED
- Building Energy Modelling for NECB and 9.36 Code Compliance
- Solar Thermal System Design and Analysis
- Energuide Compliance Modelling
- Assistance and exploration of grants and subsidies

Through their extended team they also provide:

- Green Building Certification (LEED, WELL, Living Building Challenge, etc...)
- Integrated Project Delivery (IPD) facilitation and guidance
- Lean Training
- Blower Door Testing
- Creative/lean project leadership services to achieve carbon neutral, net zero/positive energy, and regenerative buildings
- Aerobarrier Envelope Sealing Installation
- Building Envelope Analysis/Troubleshooting

Certifications:

- International Ground Source Heat Pump Association (IGSHPA) - Certified GeoExchange Designers
- Canadian GeoExchange Coalition (CGC) Certified Geothermal Designers
- Certified Energy Auditors (CEA)
- Certified Energy Manager (CEM) – EMIT designation achieved
- Energuide Energy Advisors
- Passive House Designer

Contact Information:

Jacob Komar, P Eng.
Revolve Engineering Inc.
9529 72 Ave NW, Edmonton, AB T6E 0Y5
Phone: (780) 619-2270 | Email: jacob@revolveeng.ca
<https://www.revolveengineering.ca/>

Project Management Contractors

- **C>Returns Inc.**

C>Returns is a federally registered non-profit corporation since 2011 that operates on a triple bottom line basis, seeking to provide financial, social and environmental returns. C>Returns holds a prepaid contractor license and acts as the project manager for projects involving energy assessments, solar PV design and installations and energy efficiency and renewable energy retrofits.

C>Returns was formed with start up dollars from the City of Edmonton and the Social Enterprise Fund. C>Returns goal is to audit 3,469 homes and community buildings, retrofit 1,703 buildings and create annual cash-savings estimated at \$3.2M over the next three years. The life time GHG emission avoidance is calculated to be 321,891 tonnes of CO₂e with investments to Alberta's economy to total \$21.4M. Energy and carbon retrofits, completed on a large scale, will:

- Make housing more affordable by decreasing utility costs,
- Diversify our economy by providing sustainable employment in well paid trades, and
- Reduce the environmental footprint of our homes and community buildings.

The C>Returns model provides a turn-key, one-stop shopping experience for building owners, cities and communities. C>Returns eliminates the need for home and building owners to look for certified, experienced auditors, research and select appropriate retrofit devices, obtain and evaluate tenders, supervise construction, and research and apply for rebates from government sources.

Contractors must meet the following criteria to be pre-qualified and work for C>Returns:

- Certified – Ticketed, licensed, insured
- Experienced – More than 2 years of experience in the trade, with a significant number of projects completed
- Good reputation - Proven track record and good reputation in the industry; references
- High labour standards - WCB coverage and a safety program in place; pay an equitable wage
- Has own workforce, rather than sub-contracting out to others
- Offers service contracts
- Willing to learn – Open to cross training
- Knowledgeable – Understands the technology being installed

A registered not-for-profit themselves, C>Returns is fully aware of the unique challenges faced by not-for-profit organizations. They have worked extensively with Community Leagues in the past, including the management of Cloverdale Community League's solar PV and full building retrofit project. Extremely experienced in energy efficiency, renewable energy, and net zero



building technologies, C>Returns has worked together with their partner organization, Carbon Busters, on both Cloverdale and Alberta Avenue Community Leagues.

Contact:

C>Returns Inc.
11340 79th Avenue NW, Edmonton, AB, T6G 0P3
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Email: contact@carbonbusters.org
<http://www.carbonbusters.org>