

Canmore Community Solar

A Community-Led Renewable Energy Generation Initiative



Biosphere Institute of the Bow Valley

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Overview

Canmore Community Solar is an exciting new initiative that aims to create a community-owned solar energy project in or near Canmore, Alberta. This project would be owned and managed by local citizens who invest in solar installation, sell the electricity generated back to the grid, and share the profits. Any Canmore community member can participate.

Canmore Community Solar is an example of a Community Renewable Energy Generation project. Community Generation projects produce renewable energy locally and are fully or partly owned by local communities. These projects empower citizens to contribute directly to renewable energy generation, even if they are unable to install solar panels on their own home. Community Generation projects also change the way our electricity is controlled, by giving Albertans an alternative to purchasing electricity from a large utility retailer. They create local investment revenue, and they expand renewable energy options in our province.

Below we provide a short description of the Canmore Community Solar initiative and the community co-operative association that we envision would finance and manage a future solar installation. We are currently recruiting co-operative members, and we hope you will contact us if you are interested.

The Biosphere Institute of the Bow Valley is leading this initiative in collaboration with KCP Energy, the Alberta Community and Co-operatives Association, and Energy Efficiency Alberta.



Canmore Community Solar

Part 1: Assessing Solar Installation Options

In the spring and summer of 2019, the Biosphere Institute and KCP Energy will identify and assess specific residential, commercial, and industrial rooftops that are suitable for solar panel installation in or near Canmore. We will estimate the number of panels possible per roof, and determine how the panels will connect to Alberta’s electricity grid. We will identify the best option of three scenarios, based on potential generation capacity and financial considerations:

- ★ **Scenario 1** will investigate the feasibility of renting residential roof space on which to install solar panels.
- ★ **Scenario 2** will investigate the feasibility of renting large commercial or industrial rooftops for solar panel installation.
- ★ **Scenario 3** will investigate options for sourcing locations for a solar energy system in the Bow Valley outside of the Town of Canmore boundary. This scenario will be assessed only if neither scenario 1 nor scenario 2 identifies a plausible project location.

We will simultaneously reach out to property owners to understand their interest in renting out their rooftops for solar panel installation.

Rooftop solar minimises any increase in a town’s development footprint, making it an effective community generation source for a municipality like Canmore, which has limited land available for siting renewable energy.

Part 2: Community-Based Financing

We will also explore community-based mechanisms to finance solar installation. We hope to create an Opportunity Development Co-operative, which will be run by community members who invest in the community solar generation project and share its profits.

So what is a Co-operative?

If you’re familiar with “co-operation” you’ll think of working together, of bettering yourself and helping to better others – by co-operating! That concept also underlies the co-operative business model. It’s a way of structuring an enterprise so that it is owned by the people who use and benefit from the services it offers. Co-operatives are locally owned and democratically controlled, and they’re found in virtually every industry in Alberta and around the world.



More than one million Albertans choose to be a member of a co-operative. Some live in co-op housing; others bank with a credit union; some buy their groceries, gas, farm supplies or camping gear at a co-op,

and others get their electricity, internet or water through a co-op. Like any business, a co-operative distributes its profits among its shareholders. In the case of co-operatives, those shareholders happen to be the everyday members who live, work and shop here in Alberta.

Opportunity Development Co-operatives

An Opportunity Development Co-operative (ODC) combines local capital with local expertise to build economic development solutions that create both a financial and social return on investment. ODCs are a popular and effective option for financing community renewable energy projects.

Local leaders first come together to form an ODC and register it with the provincial government as a for-profit co-operative. The ODC then identifies a business opportunity in need of investment (in this case the Canmore Community Solar project), collects local money by selling membership and investment shares to community members, and invests this money in the business opportunity.

As the business prospers, the value of the investment shares in the co-op rise.

Investment in the business opportunity is typically required to become an ODC member. Membership gives equal voting rights to each member as well as eligibility to run for the Board of Directors of the ODC.

Besides supporting the business opportunity financially, co-operative members help out in other ways. They add community credibility to the business, provide word-of-mouth advertising, and share business expertise and professional networking opportunities.



We want you!

We are seeking committed and active members of the Bow Valley community who are interested in joining an ODC, supporting this initiative financially, or otherwise contributing their expertise.

Please email jconuel@biosphereinstitute.org or call the Biosphere Institute on 403-678-3445 x 0 to register your interest! We look forward to hearing from you!

The Biosphere Institute of the Bow Valley

The Biosphere Institute of the Bow Valley is a Canmore-based charity that empowers local residents, businesses and visitors to be active environmental stewards. We do so through targeted education, research, and community engagement. We address two major challenges affecting the Bow Valley: human-wildlife coexistence and climate change.

Our climate action efforts are managed under the Bow Valley Shift program. Around the world, communities and provinces are becoming leaders in combating climate change. Shift promotes local action, empowering Bow Valley residents and businesses to reduce their energy emissions, waste production, and water use.

www.biosphereinstitute.org

www.biosphereinstitute.org/bow-valley-shift



Project Team

Jodi Conuel – Biosphere Institute of the Bow Valley



Jodi is the lead for the Canmore Community Solar project. She manages all aspects of day-to-day project implementation, including coordinating the project team and working with local stakeholders. Her aim is the successful delivery of a feasible community solar initiative.

Jodi is also the lead for the Biosphere Institute’s Bow Valley Shift program. She collaborates with local government, private businesses and community residents to organise education and outreach programs on topics related to climate change, energy efficiency, alternative transportation, water and waste.

Bruce Gleig – Biosphere Institute of the Bow Valley

Bruce will assist day-to-day implementation of this project with a focus on advising the review of planning documents and maps, and on verifying suitable rooftops for inclusion in feasibility studies.

Bruce brings significant expertise in GIS, data management and analysis. For the past 16 years, he has compiled and analyzed data on environmental trends and socioeconomic indicators in Banff and Canmore. Bruce is also responsible for recording and quantifying the GHG savings and environmental benefits of community actions led by the Biosphere Institute.



Cheryl Hojnowski, Ph.D. – Biosphere Institute of the Bow Valley



Cheryl is the Executive Director of the Biosphere Institute. She will provide high-level oversight of the Canmore Community Solar initiative, ensuring the project proceeds on time and meets its objectives.

Cheryl brings fourteen years of experience in management of community-based initiatives and environmental research related to wildlife and climate change.

Geoff Domenico - KCP Energy

As the President of KCP Energy, Geoff Domenico will review technical documents, conduct site visits, analyze data and write a feasibility study that includes recommendations, budget, locations and concept drawings for the three community solar scenarios described above.



Background: KCP Energy is a local solar installation company that provides residential and commercial clients with the knowledge and solutions they need to create a brighter, more energy efficient future. KCP and has been installing solar energy systems in Alberta for over ten years.

Geoff Domenico has led over one hundred unique solar electric, solar thermal and energy efficiency projects. He has learned a lot about solar over his eleven years in the Alberta Solar business. He holds a degree in Mechanical Engineering from Queen's University and is a member of the Association of Professional Engineers and Geoscientists of Alberta.

KCP Energy won Homestar's "Contractor of the Year" award in 2011 and was awarded the Game Changer of the Year by the Canadian Solar Industries Association in 2014. KCP has also installed the largest commercial rooftop solar project in Southern Alberta at Whitehorn Recreation Centre, in 2016.

www.livesolarnow.com

ISL Engineering and Land Services Ltd

ISL Engineering will check the structural integrity of commercial buildings that have potential for rooftop solar installation to ensure the buildings are able to support solar panels.



Background: ISL Engineering's Canmore-based team is comprised of consulting engineers and land service professionals who undertake transportation, land and water projects for the public and private sectors. ISL seeks to integrate sustainable thinking into all aspects of project development and implementation. ISL is committed to environmental sustainability and aims for its all facilities and operations to be zero waste and carbon and water neutral by 2020.

www.islengineering.com

Seth Leon - Alberta Community & Co-operative Association (ACCA)

The Alberta Community and Co-operative Association (ACCA) will provide the education and training needed to set up of an Opportunity Development Co-operative that will own and manage a community solar project. As Manager of Co-operative Services for ACCA, Seth Leon will provide guidance, training and support for the successful development of the Opportunity Development Co-operative.

Background: ACCA is a not-for-profit co-operative working for the education, development and promotion of co-operatives across Alberta.

ACCA's membership includes renowned national co-operatives, smaller community-minded co-operatives and community organizations across all industries. Its board of directors is elected from ACCA's membership organizations and represents many sectors important to Alberta's communities including agriculture, utilities, finance, education, housing, retail and more.



ACCA's role is to train, foster, connect with, and convene community champions. Together with local community leaders, ACCA leverages the co-operative model to address the social, economic and cultural needs of Albertans.

Part of the focus at ACCA is co-operative education via:

1. Raising awareness about the co-op model with the public, various levels of government, and other stakeholders such as economic development groups
2. Consulting on opportunities where people want to work collaboratively to bring social and economic development to their communities
3. Strengthening and diversifying existing co-operative enterprises
4. Educating young people about co-operative principles, values and structure, and empowering them with leadership skills

Seth Leon's work focuses on local capital solutions and providing training and education for individuals and organizations interested in implementing a co-operative business model. Seth has worked with groups across the province, such as YYC Growers and Distributors Co-op, Local Investing YYC, Solar Power Investment Co-operative of Edmonton and many more. He has also provided co-op training to the New York City Real Estate Investment Co-op and The Montana Co-operative Development Centre. He is a regular guest lecturer at the Bissett School of Business at Mount Royal University. Seth has a Master's degree in development economics from Dalhousie University, and volunteers in his community as board president of CommunityWise Resource Centre.

www.acca.coop

Information adapted from the Biosphere Institute of the Bow Valley, KCP Energy, ISL Engineering and Alberta Community and Co-operatives Association websites.