CoPower & SolarShare

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SUMMARY

CoPower and SolarShare are two organizations that connect mainstream, retail investors with clean energy projects across Canada. Their green bonds are designed to protect the investors and provide a safe financial return.

BACKGROUND

This case study features two organizations. Although they have several key differences, CoPower and SolarShare offer a very similar product, aimed at increasing the supply of clean energy in Canada, while allowing investors of all types to invest in the projects.

CoPower

Website: www.copower.me

Headquarters: Toronto, ON & Montreal, QC

CoPower is an online platform for investing in clean energy infrastructure.[1] This start-up is unique in that their platform provides opportunities for all types of investors – both accredited and non-accredited – to place capital into projects for renewable energy, energy efficiency and other cleantech initiatives. The investments are for-profit: CoPower returns the capital to the investors with a 3-5% annual return over 3-5 years.

SolarShare

Website: www.solarbonds.ca

Headquarters: Toronto, ON

SolarShare is a renewable energy financing cooperative. They aim to direct investments from their 1,500 members towards solar energy projects in Ontario. Founded in 2010, they have invested over $35 million and earned $3.3 million in returns. Their key products, the 5-year and 15-year Solar Bond, offers to investors a 5-6% annual return.

[1] CoPower (2015). CoPower Catalyst Fund and Green Notes Overview.

CHALLENGE

UN Sustainable Development Goal(s): #7 Affordable and Clean Energy, #13 Climate Action

Canada has ambitious climate change targets, aiming to reduce greenhouse gas emissions by 30% below 2005 levels by 2030.[2] As of 2017, many experts agree that there remain major obstacles to overcome if Canada wants to achieve these goals.[3] Take, for example, residential and office buildings. It is estimated they generate 30% of global emissions, and in Canada, close to 20%. By deploying renewable energy and energy efficiency projects into buildings in Canada, CO_2 emissions could be significantly reduced. Despite having the necessary technology, the project sizes are too small for mainstream financial institutions to fund. These projects are considered small- to mid-sized, ranging from $500,000 to $2M. Because of the lack of financing, the building owners wishing to make their buildings more environmentally-friendly are unable to take action.

An estimated $93 trillion in infrastructure investments is needed over the next 15 years for the world to limit the global average temperature rise to 2 degree Celsius.[4] It is generally accepted that public finance is not enough to fill this gap; private sources of capital must also play a role. In fact, many private equity funds and project financiers have recognized the profitability of renewable energy and energy efficiency investments. As a result, over $480 billion has been invested into green projects since 2015.[5] However, the investors allowed to participate in these green investments must be accredited and have access to large amounts of capital. This means that a typical individual investor is unable to make green investments, even if they want to.

SOLUTION & KEY INNOVATION

There are two leading companies in Canada aiming to break down the barriers for retail investors to participate in green investments. First, CoPower's online platform aims to open up these green investment opportunities to the typical investor. Despite the fact that 82% of

[2] https://www.theglobeandmail.com/news/politics/what-canada-agreed-to-in-paris/article27742735/

[3] http://nationalpost.com/news/politics/emissions-down-slightly-but-canada-not-yet-on-track-to-meet-2030-climate-targets-report

[4] https://www.oecd.org/environment/cc/Green-Investment-Banks-POLICY-PERSPECTIVES-web.pdf

[5] http://fs-unep-centre.org/sites/default/files/publications/globaltrendsinrenewableenergyinvestment2016lowres_0.pdf

Canadians are interested in socially responsible investments[6], 89% of green infrastructure projects are made by institutional investors.[7] By becoming an “exempt market dealer” (EMD)[8], CoPower can issue a security to retail, non-accredited investors. As long as CoPower complies with the necessary precautions mandated by the Ontario Securities Commission (e.g. having an adequate Know-Your-Client process), they can provide a series of green bonds to the public. In the next section, we describe EMDs in more detail. For a minimum investment of $5,000, investors can purchase a 3-year or a 5-year Green Bond that pays back 3.0%-5.0% annually.[9]

The capital is then pooled, usually at about $10,000,000 per bond issue, and invested as debt into Canadian and American project developers building renewable energy or energy efficiency projects. These investments are secured against operational clean energy projects that are already earning stable revenues.[10] The projects they have invested in include:

- LED Lighting Retrofits in British Columbia and Ontario condominium buildings
- Geothermal energy for homes in Quebec
- Community solar project in Minnesota

SolarShare is a similar organization, offering bonds to investors to build clean energy projects. Their two flagship bonds, the 5-year and 15-year Solar Bond, offers returns of 5% and 6% respectively. There are three key differences: first, their technology focus is in solar energy. Unlike CoPower, which invests in multiple types of clean energy, SolarShare focuses on building solar panels that sell energy to the province at a guaranteed price through a Feed-In Tariff (FIT). Second, SolarShare has a geographic focus on Ontario. The 1,500+ members of the co-op are all Ontario residents, investing in projects built in Ontario. Finally, the risk profile of SolarShare’s investments is much lower than CoPower’s. Whereas CoPower aims to invest in projects that may not yet be fully mature (e.g. geothermal), but have a solid underlying technical

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[6] https://www.riacanada.ca/investor-opinion-survey/ $

[7] CoPower (2016). Investor Welcome Guide. $
https://copower.me/files/tmp/2017%20CoPower%20Investor%20Overview.pdf $

[8] https://www.getsmarteraboutmoney.ca/protect-your-money/investor-protection/regulation-in-canada/the-exempt-market-explained/ $

[9] The investment is eligible for RRSP, TFSA, and RESP programs. See $
https://copower.me/en/green_bonds for a returns calculator. $

[10] An example of how a project generates revenue: a solar panel farm enters a 20-year contract with the municipal government to sell clean energy to their grid. $

and business model, SolarShare invests only in solar technology backed by long-term energy contracts.

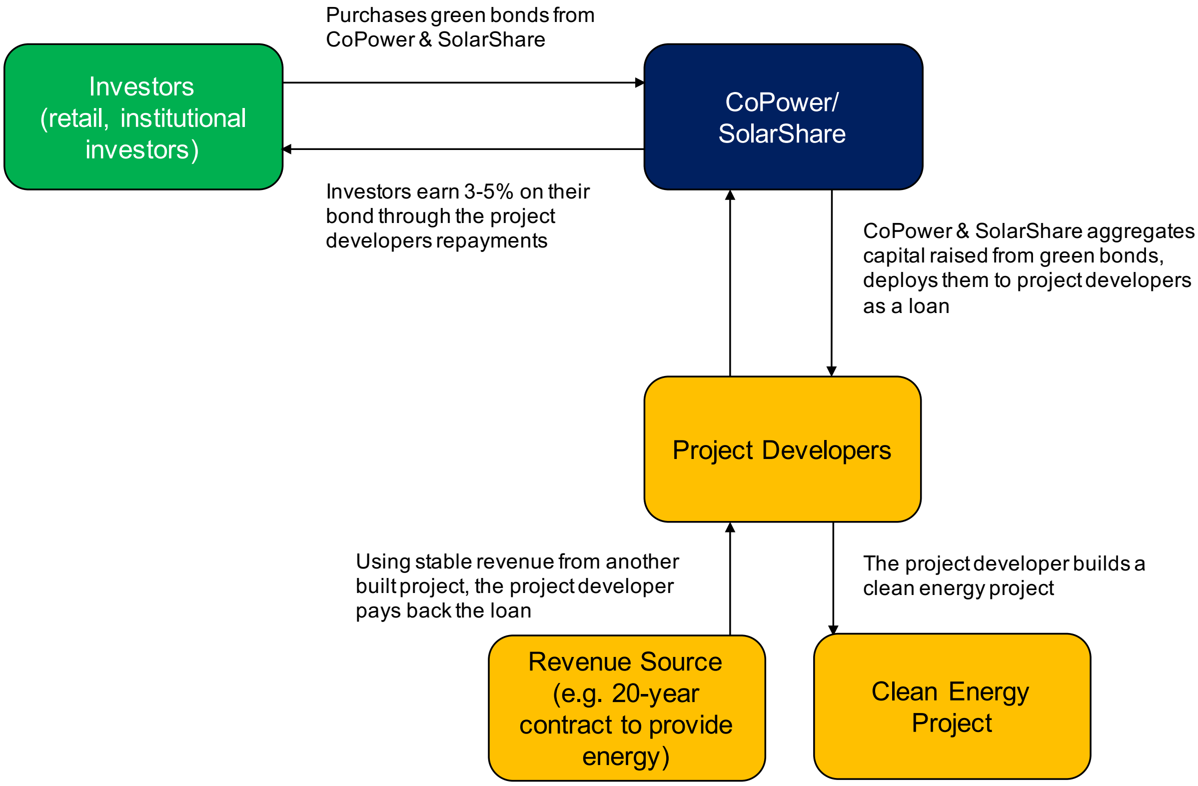
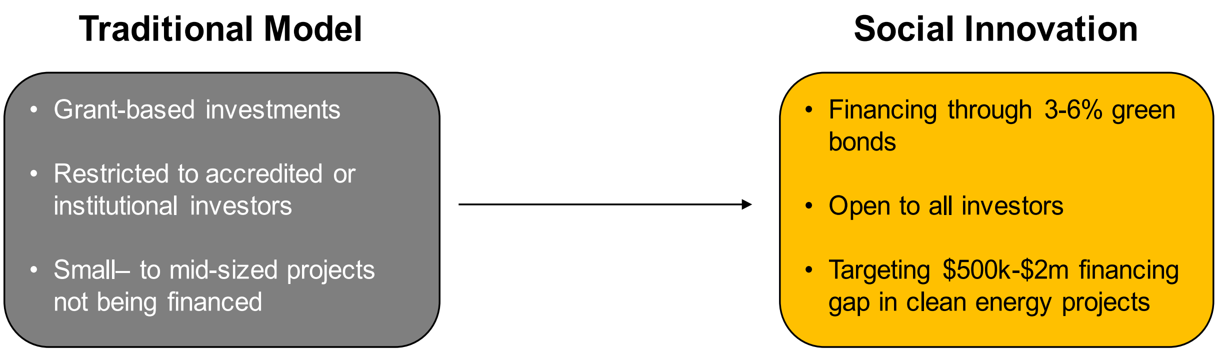


Figure 1. CoPower & SolarShare Model

CoPower and SolarShare feature two key innovations: filling a capital financing gap for small to mid-sized projects and opening up green investment opportunities to all investors. These two innovations go hand in hand.

The key barrier preventing these clean energy projects from being built is their size. Ranging between $500k to $2 million, they are too small for large banks to fund and too large for a typical individual investor. To address this, CoPower and SolarShare pools capital from many investors through financially sustainable investment. Both have created a compelling business case for all Canadians to become green investors. Not only is the investment profitable and secured, they are open to all types of investors. In fact, CoPower's youngest investor is not yet 10 years old! This is made possible because of Exempt Market Dealer (EMD) regulation.

Traditionally, the bonds offered by CoPower would be restricted to accredited investors.[11] The investors would be permitted to purchase private securities through an Offering Memorandum (i.e. without protection from a prospectus - a document that features details about the security, the risks involved, and the company[12]). These securities are also known as being "prospectus-exempt". In Ontario, however, a subset of these prospectus-exempt securities will be open to non-accredited "retail" investors as well.[13] Securities that pass the regulators' compliance tests will become a part of the "exempt market". Certain protective measures remain in place; for example, investors are allowed to invest at most $10,000 annually.[14] CoPower qualifies as an Exempt Market Dealer (EMD) and thus has opened up their green bonds to retail investors.



[11] An accredited investor must have an annual net income of $200,000 or own financial assets worth more than $1 million.

[12] https://www.getsmarteraboutmoney.ca/protect-your-money/investor-protection/regulation-in-canada/the-exempt-market-explained/

[13] There are indications that regulators are trying to harmonize EMD policy across Canada. For example, BC requires EMD registration for anyone selling prospectus-exempt securities, unless the investor is accredited, family/ friends/ business associates, making a minimum $150,000 investment. (http://www.pcmacanada.com/news/86681/BC-tightens-the-Northwest-Exemption.htm)

[14] Those with annual income of $75,000 (or have a household income of $125,000) are allowed to invest $30,000 annually, or $100,000 if they received suitability advice from the EMD. (http://business.financialpost.com/investing-pro-2/investing-pro/new-exempt-market-rules-take-effect-in-ontario-with-harmony-across-most-of-the-country)

IMPACT

As of 2017, SauderS3i estimates CoPower and SolarShare have deployed $13.2 million and $37.4 million towards clean energy projects, respectively. In addition to their green bonds, they have also raised money from institutional investors like Vancity, RBC, and Fondaction to finance their operations and for additional energy projects. The majority are invested in LED retrofits (approximately 74%) while other technologies like solar PV (18%) and geothermal exchange (8%) make up their other investments.

BARRIERS

Based on several informal interviews with the CoPower team, the key barriers are ensuring an adequate pipeline of clean energy projects that have the technology to potentially reduce a large amount of GHGs and produce stable revenues. Additionally, catalytic financing mechanisms like the provision of loan-loss reserves and guarantees from foundations and government would encourage more investors (both institutional and individual) to invest.

CoPower and SolarShare demonstrate the rising appetite for responsible investments from retail investors, and shows that profitable returns can come hand-in-hand with positive environmental impact. A problem like the clean energy transition requires much more than public finance and policy - private capital must play a role as well. CoPower and SolarShare demonstrate how programmes like Exempt Market Dealer rules and Ontario's Feed-In Tariff can incentivize private investors and de-risk their investments.

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