SES Solar
Co-operative Ltd.

Frequently Asked Questions:

1. How can I become a member of the SES Solar Co-operative Ltd.?

You can join the solar co-op by purchasing one common share (your $50 membership) and one preferred share ($950) for a total of $1,000. Your preferred share will approximate the generating capacity of one solar panel and its hookup to the grid.

2. How will the organization be run?

Everyone who purchases one common share and one preferred share will belong to the SES Solar Co-operative Ltd. and will have a say in decision making. Co-op members elect a board of directors on an annual basis to oversee the operations of the co-op. Each co-op member is entitled to one vote at all meetings, regardless of the number of preferred shares.

3. What are the benefits of belonging to the solar co-op? Who is it ideal for?

- Support Saskatchewan's first solar power co-op initiative with the view to seeing this model replicated many times in the future as solar panel prices continue to decline.
- Support a project with a much lower environmental footprint than the equivalent amount of electricity produced by SaskPower's fossil fuel power plants.
- The solar co-op will offer a hassle-free service. The Co-op's Board of Directors will worry about the installation of the solar panels, their hookup to the grid, proper maintenance of the panels, and snow removal issues.
- Owning one or more shares in the solar co-op will be ideal for those who can't afford to pay for a set of solar panels on their own house, but can afford a share.
- Owning one or more shares in the solar co-op is ideal for those who have shade issues on their own property, which can make installation of solar panels difficult.
- Owning one or more shares at the co-op's solar power plant will be a way of starting to use solar power even if you're renting or residing in a condominium unit.
- Owning one or more shares in the solar co-op is ideal for those who may move in a few years. This way you can invest in solar power and your panel interest isn't 'left behind' when you move.
- You can be assured of good quality panels. SES Solar Co-operative Ltd. will carefully select solar panels with strong environmental performance. We will only purchase from a manufacturer who is very transparent about how their panels are made.

- Co-op members will be able to monitor the production of the solar power plant on a website set up for that purpose.

4. How will the Solar Co-op generate revenue for its members?

The solar co-op will sell electricity onto the grid (to either Saskatoon Light and Power or SaskPower), and then return the net income that is generated to share owners. Each share owner will get a cheque in the mail each year from the co-op. The cheque will reflect revenue generated from each member's share(s) less expenses incurred in the operations of the solar power plants.

5. How do I indicate my interest in buying a membership?

The cost to join the SES Solar Co-operative Ltd. and purchase your common share and preferred share is $1,000. If you would like to join the co-op, you can do so by filling out the membership application form. Upon completion, please mail your membership application and cheque to:

SES Solar Co-operative Ltd.
c/o Saskatchewan Environmental Society
204-220 20th Street West
Saskatoon, Saskatchewan
S7M 0W9

6. Where will the Co-op's first solar power projects be located?

The SES Solar Co-operative Ltd.'s power projects will all be located in the Saskatoon area. Project locations will have excellent solar access, low rental costs, and cost-effective grid hookup. The Board of Directors would like the locations to have good visibility so that solar power is given more profile in our community.

7. Why invest in solar now?

Approximately three quarters of the electricity we produce in Saskatchewan currently comes from burning fossil fuels. Right now fossil fuel power stations in Saskatchewan do not have to pay for the immense environmental damage they create, so the price we pay for the electricity they produce is artificially low. Coal fired power plants are particularly damaging. In 2013 they supplied 47% of Saskatchewan's electricity.

Solar power emits only a small fraction of the greenhouse gas pollution associated with electricity produced from coal and natural gas. Solar power also doesn't make the

same demands on our precious water resources that coal and natural gas fired power stations make, since it does not require immense volumes of cooling water to run its operations.

The Saskatoon area is fortunate to have a tremendous solar resource, with as many hours of sunlight as cities such as Los Angeles, California and Miami, Florida. What's more, the cost of solar electric technology is steadily dropping. Solar power fits nicely into both an urban and rural landscape. It works well in cold temperatures, as long as the panels are kept free of snow or are installed at a sufficiently steep angle that snow does not stick to them. It also complements our existing wind power resources in rural Saskatchewan, and our potential to expand wind more. For example, while solar power production takes place during daylight hours, wind power production often peaks at night.

If we want to build a renewable power future for Saskatchewan, the building blocks need to be put in place now, so that when solar electric prices drop further, the institutional structures we need to make solar power take off are ready to go. That is one of the important objectives the SES Solar Co-operative Ltd. will contribute to.

8. Will investors recover their costs over time?

The SES Solar Co-operative Ltd.'s goal is to provide an average return on investment of 2+%. This number is expected to improve with time.

9. How much greenhouse gas reduction will be achieved by the first solar power plant's operation?

Greenhouse gas reduction from the installation and operation of the solar power plant will be at least 20 tonnes per year for every 100 panels, and potentially higher depending on the mix of coal and natural gas being displaced. If these greenhouse gases were instead permitted to go into the atmosphere, they would remain there for a very long time. Carbon dioxide emissions from fossil fuel burning remain in the atmosphere for an average of 100 years. The nitrous oxide emissions from fossil fuel burning remain in the atmosphere for 114 years. Both contribute to climate change over that entire time.

In fact, some of the impacts from manmade carbon dioxide releases go on much longer than 100 years. The reason that the number for the atmospheric lifetime of carbon dioxide is an "average" is because while some of the carbon dioxide released by fossil fuel burning is taken up by terrestrial vegetation and by the oceans within 30 years; much of it remains in the atmosphere for centuries. Scientists now estimate that

at least 15% of the carbon dioxide released by fossil fuel burning today will remain in our Earth's atmosphere for 1,000 years. During its time in the atmosphere, this excess carbon dioxide contributes to the many consequences of climate change, including extreme weather events, and severe flooding and drought.

Moreover, when the carbon dioxide from fossil fuel burning is later taken up by the oceans, it causes sea water to acidify. Due to the enormous volumes of man-made carbon dioxide now being transferred from the atmosphere to the oceans, the oceans are acidifying at an alarming rate. This poses a serious threat to the health of our marine ecosystems, and particularly to all ocean creatures that form shells.

Thus, moving away from fossil fuels for electricity generation, and replacing them with clean, renewable power is urgently needed.