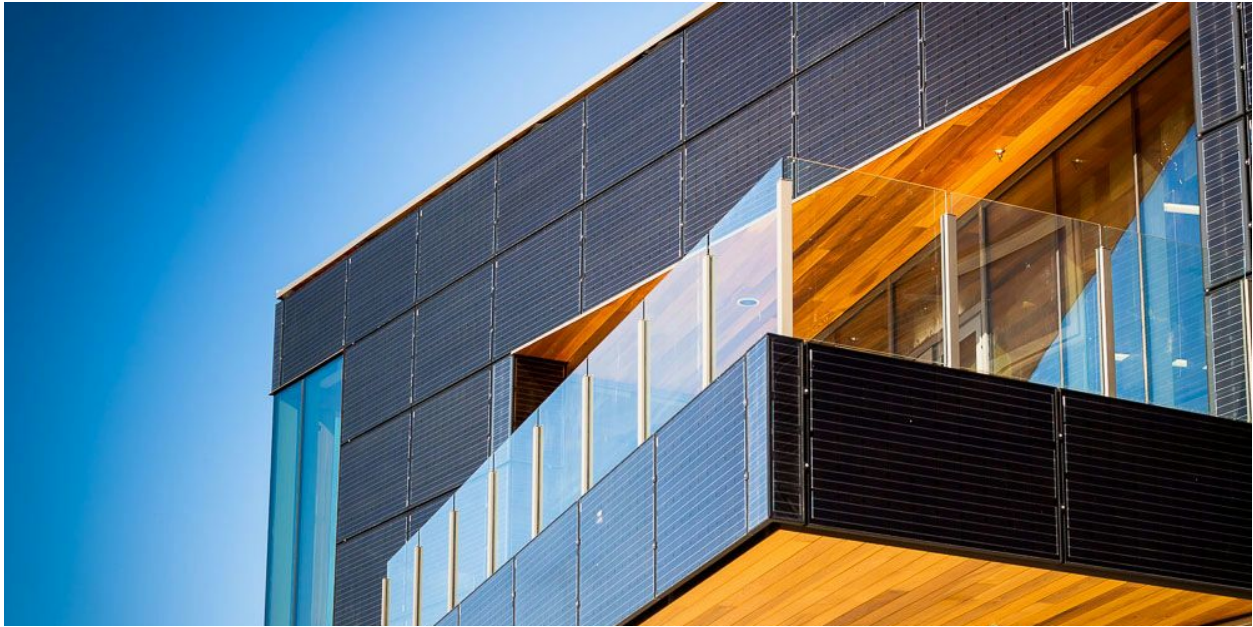


GEA
Green Energy Alliance of Alberta
greenenergyalliance.ca



Who We Are

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The GEA is a non-profit organization which represents over 35 member companies and organizations from all over Alberta and is comprised of leading members of the solar, wind, geothermal, and energy efficiency industries, as well as municipalities, educational institutions, green builders and architectural firms which collectively employ hundreds of workers in Alberta. Our member firms are deeply embedded in Alberta's green energy industry and have a tremendous amount of knowledge and experience; for example, our members alone are responsible for more than 90% of the Solar PV installations in Alberta.



What Alberta Needs

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1. A sustainable, diversified, greenhouse gas (GHG) free economy
2. 100% renewable energy in the electricity grid by 2050
3. High quality and local Green Jobs
4. Long term economic stability

How We Get There

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Alberta needs to take immediate action on reducing our GHG emissions and the only way we will make a meaningful impact is by having the buy-in of all Albertans. Top down solutions can be successful, but can fail to engage the public in a meaningful way. As experienced in Ontario, top down solutions can sometimes create backlash and will turn people away from finding real solutions. We believe that the climate challenge will only be solved by engaging all Albertans from the ground up, and allowing them to be a part of the solution. By encouraging and supporting Albertans to install renewable systems and improve energy efficiency in their homes and businesses, not only are we giving the public a chance to reap the benefits of these technologies (lower energy costs, long term stability) but we will create the most important thing of all; real buy-in. People who install solar panels on their home or business will feel like they are part of the solution and will look for other ways to improve their energy efficiency. Helping Albertans to invest in renewable technologies means that they will see the financial returns and experience the benefits first hand; their stories of success will help those technologies be self-promoting. If all we do is create large scale solar farms and force the public to pay even higher power costs, we will actually turn them against renewable technologies. Utility scale investments are necessary to reach 100% renewable energy generation targets, but community and small-scale projects must be part of the solution for full buy-in from Albertans—and to help develop local economies and create local clean energy jobs.



It is with this in mind that we recommend the following steps for all municipalities to take in our push for a renewable future:

1. Promote energy efficiency in buildings

Alberta is the only jurisdiction in North America without an energy efficiency program. One of the key components in our energy transition strategy must be very aggressive improvements to energy efficiency in new and existing buildings. The more efficient our buildings are, the less energy we need to create at the building and grid level. For example, it is much more efficient and cost effective to reduce energy consumption with LED lighting than installing new solar PV. We believe a broad, comprehensive energy efficiency program should be established that:

1. Encourages existing building owners to significantly improve their building's energy efficiency
2. Requires new buildings to meet a target energy use intensity (EUI) similar to that used throughout Europe (eg. 100 kWh/m²/year and Net Zero by 2020)

Any efficiency program implementation must follow a sustainable and permanent approach to ensure that local industries are not damaged by sudden stops and starts. These programs can include technology and installation rebates, green bonds, and government backed or low interest loans, which are a fantastic way to help the public avoid the only real obstacle to renewable systems (the upfront cost). Other innovative approaches include property assessed clean energy (PACE) financing, which de-couples investments from home-ownership so that retrofits are tied to the home, not the owner.

The big advantage of these types of programs is that they create local jobs immediately. A utility scale project creates few local jobs, but improving energy efficiency requires many different types of contractors to install new windows, insulation, lighting, geoexchange systems etc... Alberta needs new jobs right now and this is an effective way to create jobs while at the same time taking meaningful steps to reducing our GHG emissions.



2. Support the rapid adoption of community owned and small scale renewable energy

By supporting and leveraging the efforts of Alberta's communities, individuals and businesses to produce their own renewable energy, we are allowing them to play a role and benefit from the clean energy transition (the benefits include clean power, lower energy bills and a stable long term energy supply). Instead of only relying on large utilities that send power over hundreds of kilometres of transmission lines (which is costly and inefficient), we can allow our communities to be more energy independent and use the money to create local jobs and investments in the community. A distributed renewable energy system is more resilient, reliable, secure and efficient; it also does not require further investments in long distance transmission lines which drive up electricity prices.

We encourage the creation of best practice programs to support the adoption of small scale renewable energy (such as solar PV) so that all Albertans can take part in the energy transition. By helping Albertans install renewable systems in their homes, businesses, and communities, we give them an opportunity to be a part of the solution. Instead of paying an ever increasing power bill, Albertans can reap the financial benefits of a clean energy supply with no sudden increases in energy prices. Community based systems also create local jobs and the savings from installing these systems can help support further investment in the local economy.

Some mechanisms of promoting community based systems include standing offer programs (for renewable energy generation), direct incentives, green bonds, government backed loans, property assessed clean energy (PACE) financing and market support for energy service companies (ESCO).



3. Push for a universal carbon tax

A universal economy-wide carbon tax is one of the fairest, most effective ways to reduce GHG emissions because it ensures that the polluter covers the costs of their emissions. The carbon tax should apply to all emissions regardless of size or sector, and the income generated should only go into renewable energy investments. Over time, as fewer investments are required to support the energy transition, these funds can be used for other programs. However, we strongly believe that there

should be exemptions or tax credits to compensate those that cannot afford to pay. Lower income Albertans are hardest hit by high energy costs, so a mechanism is needed that does not penalize and financially stress these members of society.

4. Set renewable energy targets for grid generation

While community renewable energy systems are a great way to empower our towns and kickstart the energy transition, the reality is that for the foreseeable future we will still need large utility based electricity generation. However, this does not mean that we can't push for a renewable based electricity grid that seamlessly weaves large utilities and community based renewable energy systems into one integrated and low emissions electricity supply. We believe the best way to achieve this is by mandating a renewable energy target for grid generation, also called a Renewable Portfolio Standard, with a specific target for projects with a community component, or equity stake by Albertans. For example, 50% of the renewable energy generated by 2050 should include local ownership. Similar actions in other jurisdictions have shown that this is a very effective strategy. Examples like Texas, show that the targets are not only quickly met, they are often very quickly exceeded.

Above all we need to remember that the electricity grid is there to serve us; we need to demand a better product from the utilities. Lost in recent years is the idea that public policy objectives should ensure that grid operations and designs should first and foremost serve the public interests.

How Do We Pay for It

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All of the proposed programs are obviously not free, but luckily Alberta already has an existing funding source to pay for all of the proposed programs; the carbon levy fund. The existing carbon levy fund presents a tremendous opportunity to kick-start the renewable energy transition without any cost to the taxpayer. The funds can be used to fund proven, existing renewable technologies (that are already available to consumers) which would kick start the energy transition in Alberta. By optimizing the use of the funds to support programs and projects that reduce the most emissions per dollar, we can achieve significant GHG reductions and create lasting green jobs. This is a perfect opportunity to get large emitters to pay for GHG reductions. This approach (which carries no additional cost to government or taxpayers) has the huge side benefit of building the green energy industry in Alberta which will create green jobs and help diversify Alberta's economy; making it more resilient.

The carbon levy fund is currently only funded by large emitters at \$15/tonne (increasing to \$30) and is based on an intensity reduction, not all emissions. We believe that the fund should be contributed to by all emitters (see Carbon Tax), and that the price should go up regularly and to a number that will act as a real incentive to move to renewable energy.

Benefits of our Plan:

- Existing money in the carbon levy fund means that paying for renewables would cost the government or taxpayer nothing
- Investments in small to medium scale systems would allow all Albertans to take part in the energy transition directly
- Predictable energy cost for citizens and small businesses, including low income, rural and aboriginal communities
- Incentives or investments in renewable energy will immediately grow the green energy industry and create quality local, green jobs
- By phasing out coal power and increasing the use of renewables, we would improve Alberta's air quality and reduce negative health impacts (and the associated healthcare costs)
- Decentralized energy production would create a more robust, efficient, and lower cost grid
- We can address poor global public relations directly by making Alberta a leader in green energy
- **We have the opportunity to be proud of a new, green Alberta**