

How Canada and JFE are pushing beyond 2050

In June of 2021, the government of Canada adopted the *Canadian Net-Zero Emissions Accountability Act* to achieve net-zero emissions by 2050.

At JFE Shoji Power Canada (JFE), we're committed to helping Canada and the world reach this goal. However, our commitment to the environment goes well beyond that. Our mission is to support our clients and society as a whole in building a stronger, more efficient and expansive electrical grid to lessen the burdens on our environment.



Achieving net-zero emissions means our economy will emit no greenhouse gases OR we will offset emissions through actions such as tree planting or implementing technologies that can capture carbon before it is released.

Every day, now and into the future, we're working to develop a stronger, renewable energy source. For over a century, we have relied on burning fossil fuels to create energy and gas-powered vehicles to take us from A to B. There *must* be a shift to clean electrical, renewable energy sources to make a positive environmental impact. How do we do this? By providing customers with the services, products and expertise that will help us through this transformation.



We've been inspired to work with our clients and suppliers to find more sustainable energy solutions. Still, for many companies, taking a first step toward the climate goals for 2050 can feel somewhat daunting. To begin, let's discuss how companies can get started in a positive, productive way.

Making "environmental protection" a true priority at a company level

Easing the strain on Mother Earth is a discussion that's coming up more and more at the corporate level. As Canada is one nation on the growing list of countries that have pledged to achieve net zero in carbon emissions, many companies are asking what they can do to take up the cause. Still, throwing the phrases "net zero" or "renewable energy" around at a board meeting or a town hall is the easy part. The reality is that Canada cannot achieve its environmental goals without a collaboration between businesses, government groups and non-governmental organizations.

Overall, businesses need to have an understanding of how they're currently impacting the environment and how they can actively create climate-minded initiatives to share with their partners and clients.



As a start, here are some tangible steps that a business can take:

1. Create a carbon reduction budget. This is a clear first step for all companies, but specifically those in the energy sector. Though Canada as a country uses emission targets rather than a carbon budget, budgets can be scalable, and are great tools to help you measure progress to see where you stand.
2. Prioritize early adoption. The time for waiting is far gone. For companies, now is the time to seize opportunities for cleaner, more renewable energy sources while looking at new technology, new products and services and, frankly, new ways of thinking.
3. Stay on top of policy makers. Business leaders have the leverage to inform and positively impact climate change strategy. We need to ensure that the economic changes made to reach 2050 goals result in good-paying jobs and strong business communities. We cannot wait for mandates or policy initiatives to regulate these improvements – now's the time to act and lead. Business leaders must provide the vision and the resources to deliver creative solutions to make these changes.



A global leader in sustainability

Originally known as Cogent Power, JFE Shoji Power Canada came into existence when it was acquired by JFE Shoji Trade Corporation (JFE Group) in September 2019. Based in Tokyo, the JFE Group is one of the world's largest steel producers, but places climate change as a critical business concern. As a whole, the steel business emits 99.9% of JFE Group's total CO₂ emissions, so developing new technologies for renewable energy is more imperative than ever. When looking ahead, the JFE Group has made

a number of pledges to help reach our goals for energy conservation. These include:

- To develop and maintain a variety of eco-friendly products and technologies to aid in renewable energy power generation;
- To seek business opportunities that allow JFE to enhance its contributions to decarbonization throughout society; and
- To prioritize JFE's offshore wind-power business by uniting the strengths of each individual group within the organization.



"Our team is very excited about the work we're doing to improve our electrical efficiency, the sustainability of our grid and providing lower-carbon solutions for many of our clients."

Ron Harper, CEO, JFE Shoji Power Canada



JFE's three-part strategy for sustainability in Canada

So, what are we doing here at home? It's easy to make claims that we're working toward lessening the impact on our environment, but where's the evidence? Our CEO Ron Harper has outlined three critical initiatives that our Canadian business is working on to show its dedication to the cause.

- 1. Increasing the capacity and efficiency of our electrical grid.** We have worked for decades to provide cost-effective, higher-efficiency materials and parts to the transformer industry that supports our electrical grid. As society increases its demand for electrical energy, we are strengthening and renewing that commitment. We are expanding our North American electrical grid's capacity by replacing aged equipment and finding more renewable generation sources. Sustainability of our electrical energy sources is of paramount importance to our modern society. Our path to get there must be an efficient one.
- 2. Carbon reduction.** JFE is currently working very closely with all its suppliers, particularly raw material suppliers, on carbon awareness and reduction. In fact, we are in an advanced partnership with one of our European suppliers and a North American OEM client to start using a carbon-reduced electrical steel product for a Canadian Utility Transformer. As Ron elaborated, "This initiative, working through our supply chain with our business partners and clients, is an important part of our carbon-reduction strategy and our support of the 2050 net-zero initiative." We seek to expand and strengthen our carbon reduction strategy through our supply chain, and our internal processes. We will be formalizing our strategy through the balance of 2022, along with efforts to deepen awareness and understanding of our initiatives.

3. Electrification of the transportation grid.

It is of critical importance that we reduce the number of gas-powered vehicles currently on the road and replace them with cleaner alternatives. Most transportation OEMs have announced bold strategies in this direction, and we seek to support and strengthen the capacity for this transformation. Again, this task is driven not by economic reasons, but by environmental ones. Though there continues to be a strong growth in the number of Plug-in Electric Vehicles (PEVs) on the road, as of 2021, PEVs accounted for only 5.2% of new vehicle registrations in Canada. Our work is ongoing to ensure Canadians feel compelled to see them as a viable option. This includes working with our utility clients to ensure consumers have a full understanding of the positive impacts electric mobility will have (i.e., where will charge outputs be available, and what will the cost be?). As Ron outlined, "We're working very hard with automotive OEMs (Original Equipment Manufacturers) to make sure we're providing energy-efficient solutions for the growth and demand of electrically efficient vehicles." In 2021, we announced our strategic collaboration with Enedym Inc., a Canadian-based inventor and designer of paradigm-shifting motor technologies. Along with our sister companies within the JFE Shoji Group, including JFE Steel, we intend to be a major force in enabling this transition to allow Canada to be a leader in clean energy technologies. It is our commitment to work with these OEMs and industry partners within our supply chain along with governments and government partners to achieve these objectives.

With eyes toward the future, there's a lot less road ahead than expected. Nevertheless, JFE has a number of additional strategies in the works for 2023 and beyond. We are working with governments, industry partners, clients and advocacy groups to advise and create the needed policies to protect future generations. As Ron puts it, "We're fortunate that we're working with some very progressive companies to build strategies, and we will have a positive impact in the future."



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