



# Ottawa renewable electricity

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Photo: Wind turbine owned by OREC in Zurich, Ontario PHOTO: MARION SIEKIERSKI

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As we move from our record-breaking summer of smoke, fire, heat and rain into the fall and winter, what can we look forward to? Will we have to endure ice storms, freezing rain and bitter cold?

Whatever the changing climate brings us, we know that the current energy transition to low-carbon sources is necessary to limit the worsening effects of global warming and climate destabilization.

Earlier this year, Community Associations For Environmental Sustainability (CAFES) conducted city-wide workshops to hear from residents in different wards about their concerns regarding climate change and environmental sustainability. One of the top-ranked concerns was the security of the energy supply.

Renewable energy siting regulations under review In July, Ottawa City Council paused the siting of renewable energy projects. A draft of the new regulations is expected to go before committee and the full City Council in December or January.

In its October 2023 report, the International Energy Agency (IEA) affirmed that the bulk of success in reducing global emissions so far was achieved thanks to solar photovoltaic, wind power and electric vehicles. Not only are solar and wind energy now much cheaper sources of energy than fossil fuel or nuclear, but battery storage costs are down 75 per cent from just five years ago. Interestingly, it is wind turbine zoning regulation that is the most controversial. We need to ensure that the regulations currently being drafted by City Hall allow wind turbines, along with solar and battery storage, within Ottawa's expansive boundaries.

Even more tantalizing is the prospect of local community investment in these ideas. Instead of letting distant pension funds do the investment work, we can do much of it ourselves. Ottawa is an active centre of investment in renewable energy through the Ottawa Renewable Energy Cooperative (OREC). OREC members currently own two wind turbines in Ontario, plus many solar energy projects right here in Ottawa. This kind of initiative creates ownership of power generation within the community, leads to greater local understanding of the energy industry and its challenges and delivers economic benefits.

Addressing wind power's challenges One of the complaints about wind power is the intermittency of wind. Clustering wind turbines with solar photovoltaic and battery storage stabilizes energy outputs so they can respond to fluctuations in local energy demand.

Wind resources in Eastern Ontario are commercially viable with turbines designed for lighter wind regions.



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The wind industry makes siting decisions carefully, seeking a good relationship between people at home and at work and the turbines operating in fields nearby. The provincial minimum setback is 550 meters for a single turbine and 650 meters for two machines. In addition, acoustic maximum thresholds apply so that under most circumstances the existing prescribed setbacks exceed the minimum of 550 meters. If sound level complaints occur, the operator can modulate the turbine's output to reduce noise emissions.

Wind turbines have a reputation, exaggerated by some media, for posing danger to birds, but the number of birds killed annually by contact with turbines pales in comparison with birds killed by feral and domestic cats and by collisions with buildings. Nevertheless, the wind industry has embraced mitigation methods to reduce avian mortality. The American Bird Conservancy recognizes that climate change threatens the survival of birds and supports wind turbines when they are sited to avoid migration paths and stopover sites.

If you care about renewable energy and climate resiliency in Ottawa:

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