

Hollywood North faces huge environmental challenges

Experts will gather at a sustainability forum for the film industry in Vancouver in November to discuss ways the industry can help in the climate fight. Topics will include banning diesel generators, re-evaluating the type of food served to crews, and ditching the fake plastic snow.

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Hollywood North is big business for B.C., but so too is its carbon footprint.

Film and TV productions, on average, produce around 500 metric tonnes of CO₂ per production, or the equivalent of 108 cars on the road for a year, according to one industry analyst.

The industry faces enormous environmental challenges, everything from movie set waste, plastic food containers and water bottles, to micro plastics entering the ocean and atmosphere from fake snow and other special effects.

B.C. saw \$3.6-billion worth of screen-based shows shot in the province during 2017-18, a 21-per-cent increase from the previous year, according to the Canadian Media Producers Association. Vancouver is the largest film and television production centre in Canada and the third in North America.

In B.C., there are at least 57 productions underway, including more than half a dozen Christmas movies.

That's an estimated average of around 28,500 metric tonnes of CO₂ being produced currently in B.C. by one industry, according to Zena Harris, president of [Green Spark Group](#), a Vancouver-based sustainability consultant, which calculates the carbon footprint of the productions it works on.

The group tracked the carbon emissions of 20 film and TV productions in Canada and the U.S., including all aspects of production such as flights, driving, diesel generators, food trucks, and special effects.

And what they found was an average of 500 tonnes of CO₂ being emitted from one production.

It's a drop in the bucket compared with other sectors in Canada, most notably the oil and gas industry which in 2017, emitted 195 megatonnes of carbon dioxide, or 27 per cent of total emissions in Canada, according to Environment and Climate Change Canada, followed closely by the transportation sector, which emitted 174 megatonnes.



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Still, Harris says 500 tonnes of CO2 is too much for one production.

“That’s equivalent to 108 cars on the road for a year or 61 homes worth of energy use for a year. So, if there are more than 50 productions filming in Vancouver, that’s a lot of CO2,” she said.

There is no aggregated motion picture data to compare emissions of the industry with other industries, however Harris said it is encouraging that more productions are calculating their carbon footprint. Collecting and sharing this data will help studios understand the impact and what areas to focus on.

While more production companies work on reducing their carbon footprint, many high profile actors have taken up the cause, including Leonardo DiCaprio and Vancouver’s own Deadpool star Ryan Reynolds, who recently told [The Climate Reality Project](#) that he wants to protect his kids from the climate crisis.



Deadpool actor and former Vancouverite Ryan Reynolds is an advocate for sustainable movie production. *AP*

That commitment to climate action is why Harris is co-producing a conference in Vancouver called the [Sustainable Production Forum](#), which will be held Nov. 1 and Nov. 2 in Vancouver to discuss sustainable production practices in motion pictures.

“Over 600 municipalities have declared climate emergencies so we need to figure out what that means for our industry,” she said.

The forum is the only conference of its kind where stakeholders from across North America can talk about the broad spectrum of sustainability in the motion picture industry, Harris added.

Creative B.C., the main industry support group for the province's entertainment sector, is a partner in the forum.

CEO Prem Gill agrees that the industry still faces a lot of environmental challenges, but says significant progress has been made over the last three or four years to clean up wasteful practices and make B.C. a leader in sustainable film production.

Through Creative B.C., the province has the [Reel Green Initiative](#), which provides either low fee or free sustainability and carbon literacy training sessions for anyone working in the film and television industry, said Gill.

"We work closely with foreign production companies and producers and studios in Los Angeles. Warner Brothers., for example, is very committed to sustainable production," she said.

Creative B.C. is also working with the British Academy of Film and Television Arts on the [Albert carbon calculator](#) for use in Canadian productions.

"So productions can use this calculator and figure out where they need to make changes on their productions to become carbon neutral."

Among topics at the forum will be what the industry can do to reduce emissions, such as not idling their vehicles, using electric vehicles, and using electric generators and where possible plugging into the grid.

"Things are changing and they are changing quite rapidly," said Harris, but noted there are still hurdles. For example, portable battery powered stations are available but they aren't used by all companies yet.

"Cost is definitely a barrier but that is starting to diminish because of competition," she said.

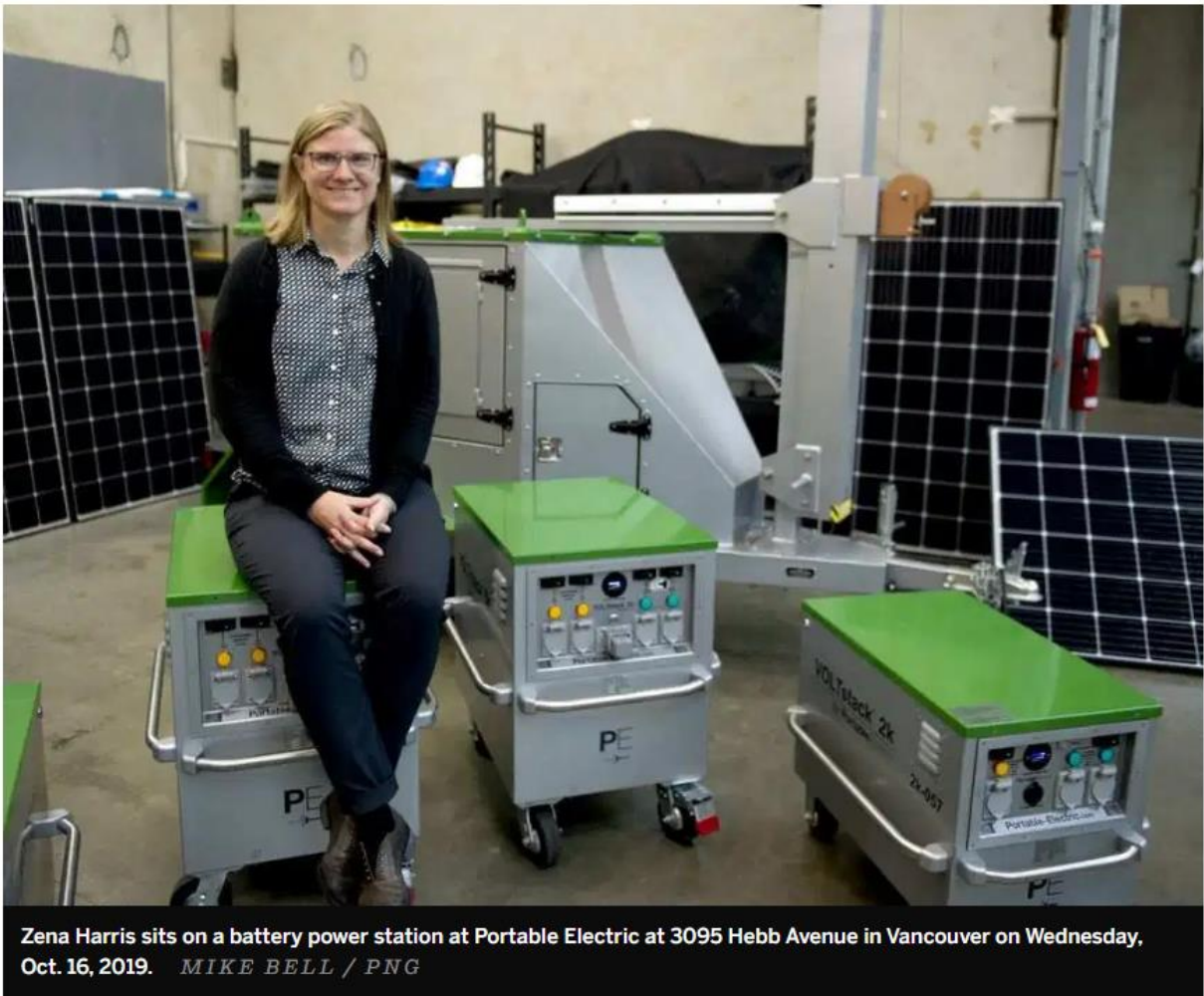
Cities in North America need to collaborate with the industry, though Harris noted Vancouver is already making legislation to address the industry's environmental issues.

Vancouver city councillor Adriane Carr said the city is moving to ban diesel generators.

City council passed her motion [in July to phase out generators](#) and replace them with electrical plug-ins.

"It won't happen instantaneously but we are on that path," Carr said.

Carr said the plan is still being worked out but she expects that within a year they will have power drops at the most popular filming locations such as certain areas of downtown like Gastown and the Vancouver Art Gallery.



Zena Harris sits on a battery power station at Portable Electric at 3095 Hebb Avenue in Vancouver on Wednesday, Oct. 16, 2019. *MIKE BELL / PNG*

Each filming day uses an average of two to three diesel generators, with each generator using an average of 296 litres of diesel a day.

With an estimated 2,350 filming days in Vancouver last year, that translates to a potential reduction of more than two million litres of diesel and about 5,500 metric tonnes of carbon dioxide-equivalent emissions a year.

Harris said there are other areas of sustainability they will explore at the forum including recycling and reusing materials, reducing red meat served to the crews, ditching plastic water bottles, and buying local to minimize shipping.

She'd also like to see more sustainability lockups, where set materials are turned around quickly to reuse for other productions, and more companies use biodegradable products.

"Sometimes it flies under the radar and people don't think about it so that's why it is important to talk about it," she said. "Bio-based snow is being used but is it being used across the board? No not yet."

John and Elizabeth Quee own a company based in North Vancouver called Thomas FX that makes biodegradable snow and ash for the film industry. It has been used in many blockbusters, including The Hateful Eight, Avengers Infinity, and The Revenant.

CEO John Quee said they began working with biochemists to develop a food-grade biodegradable snow about 15 years ago because they were horrified by the materials in most artificial snow that end up polluting the environment. Those include plastic, Styrofoam, chemically treated paper, and chicken starch pellets commonly used in slaughter houses, or petrochemical polymers.



John and Elizabeth Quee own a company based in North Vancouver called Thomas FX that makes biodegradable snow and ash for the film industry. *HANDOUT / PNG*

“We were always the go to people for snow but I thought we could do better,” he said, adding that he and his wife invested \$1.5 million into developing safe biodegradable snow that works. They received a patent in 2013 for their Sno-FX.

“Since we use food grade ingredients which can be regrown, our artificial snow is a truly sustainable product. No trees are cut down in our patented process,” he said.

“It drifts, it blows, it falls, it floats, it forms cornices and it’s the whitest snow product on the market.”

He said for years their product flew under the radar because it was more expensive, but he says now that companies are much more sensitive to environmental pollution their business is booming, with production companies around the world placing orders.



John and Elizabeth Quee's firm Thomas FX received a patent for their artificial snow products, which falls, drifts and accumulates like real snow while being biodegradable. JENELLE SCHNEIDER / VANCOUVER SUN

Plastic snow is cheap but micro plastics are polluting the oceans and have been found to be prevalent in drinking water and food. A University of Victoria study estimates a person may consume between 39,000 and 52,000 microplastic particles a year from food, and possibly more from the air.

Carr, who is also chair of the Metro Vancouver Climate Action Committee, vowed to look into the use of plastic or chemically treated snow and determine whether there is anything the city or region can do to restrict the industry from using it.

"Especially because we do get a lot of those winter Christmas productions ... so hopefully there is something within our authority, maybe Metro Vancouver has to step in in terms of pollution into the ocean, and they regulate air quality so I'll take it up with Metro Vancouver," she said.

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-With files from Cheryl Chan, Derrick Penner, and The Canadian Press