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MEDIA RELEASE
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Climate-friendly trucking key to meeting BC emissions target

British Columbia will need much more clean electricity and a wholesale change in commercial trucks operating in the province to meet its 2050 greenhouse gas (GHG) emissions reduction target while supporting economic growth, say University of British Columbia researchers with the Pacific Institute for Climate Solutions (PICS).

In the report *Electrification of road freight transport: Policy implications in British Columbia*, published this month in the journal *Energy Policy*, researchers with PICS' *Transportation Futures* project at UBC found that emissions from passenger vehicles and buses have dropped since 2007, but GHGs from freight trucks increased. PICS is a research and knowledge network of four BC universities based at the University of Victoria.

Researchers compared BC forecasts for cargo truck demand and energy output demand, available to 2040. They concluded that enhancing truck engines or improving transport logistics alone wouldn't be sufficient to meet emissions targets.

"Transportation is BC's single largest source of emissions and freight trucks are a key contributor," said UBC energy expert Walter Mérida, who led the project and worked with researchers Hoda Talebian, Omar Herrera and Martino Tran. "To meet the province's total emissions target while supporting economic growth, emissions from road freight transport must decrease significantly—by at least 64 per cent by 2040, as a mid-term goal. And that's achievable if all new trucks sold by 2025 are electric."

To electrify all road freight trucks—whether through battery electric or fuel cell—would require up to 33 terawatt hours by 2040, which is equivalent to 55 per cent of current electricity generation.

"Our analysis shows that BC's current and projected hydroelectricity surplus in BC may not be enough to deliver these requirements. The province may have to consider ways to develop electricity generation from additional clean sources," Mérida added.

Those clean sources include solar, wind and wave power.

"Bottom line is that electrification of trucking would introduce a large new load, which needs to be seriously considered in BC's future energy system," said Sybil Seitzinger, PICS executive director.

PICS is an independent, policy- and technology-neutral research and knowledge network focused on developing climate change mitigation and adaptation solutions. The institute works collaboratively with researchers, policymakers, industry, communities and other stakeholders in the development of climate solutions.

An [infographic](#) is available.

A high-resolution image and the infographic are also available on [Dropbox](#).

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