

Dr. Thorsten Klaus
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April 25, 2017

Hamilton City Council

Hamilton City Hall
71 Main Street West
Hamilton, Ontario
L8P 4Y5

Dear Mayor Eisenberger,
Dear City Councillors,

On the eve of the LRT vote I am writing to encourage you to support this bold project and help realize a future-oriented vision of transportation, urban planning and energy planning for the City of Hamilton.

I grew up in Westdale, and between visiting relatives and working summers at Main Cycle near Main and Kenilworth, I've spent a great deal of time travelling through Wards 1-4. I went on to graduate from the Infrastructure option of the Engineering Science program at the University of Toronto, and for the past 10 years I've lived in Stuttgart, Germany, where I've earned my doctorate in sustainable building and have had the opportunity to experience the advanced transportation systems of many European cities firsthand.

1) Transportation and Urban Planning

Stuttgart is a city much like Hamilton in size and population. In addition to buses, regional rail and high-speed rail services it is extensively covered by an innovative light rail network which runs partially above ground, in both shared and separated right-of-ways, and partially below ground as a subway system. Like a spoked wheel, 15 lines reach out into the suburbs and come together in the city centre. This design focuses social and commercial interaction at the city's core, which is vibrant and bustling. Development along the LRT lines is also very successful due to the convenience of access, and park-and-ride garages at certain stations allow commuters to leave their cars and enter the city by transit, free of congestion and parking worries.

Light rail systems can move passengers through a city with greater speed, capacity, and comfort than buses at a dramatically lower cost than a subway system. Designed properly, they are flexible and expandable to meet future needs. Their passenger density compared to cars and buses means ultimately less congestion for all road users – a quantifiable benefit for all city residents, whatever mode of transport they use. The qualitative aspects of rail transit should also not be underestimated. Electrified rail is quiet, smooth, and free of vehicle emissions, and these factors influence the attractiveness of a system to riders and potential riders, including those who may be considering moving to a new city. I can say subjectively, as a young professional, that I would automatically be more attracted to a community with an LRT system than one without.

The LRT line would greatly benefit the downtown core of Hamilton, and would increase the attractiveness of development along its entire length. It would increase the number of people who could quickly and conveniently visit the downtown area, and it would be a statement of progressive planning destined to attract new residents seeking a forward-looking city to call their home.

2) Energy Planning and Sustainability

An electrified LRT system would be a major environmental benefit for the City of Hamilton, both now and in decades to come. By replacing buses and cars along a heavily travelled route, it would contribute to improved air quality in the city centre, which currently ranks among the worst in Ontario. On a larger scale, it would contribute to CO₂ emission reductions and would represent a substantial response from the City of Hamilton to the increasingly urgent problem of climate change.

Ontario's current electricity mix is already quite progressive, with the majority of power generation coming from nuclear and hydroelectric sources. Natural gas, the only remaining fossil fuel source, makes up only about 10% of generating capacity, while renewable sources are poised to surpass 10% in the near future (data from 2015). This low-carbon mix means that the more vehicles which are electrified – rail or otherwise – the greater the reduction in air pollution in the city and in the province, including CO₂, nitrogen oxides, ground level ozone and fine particulates.

The accelerating trend towards electrification in both the transportation and building sectors is an exciting development with far-reaching consequences, perhaps the most important of which is the sudden compatibility of energy across different systems – such as vehicles and buildings – which was never before possible. The cost of renewable energy, especially solar energy, is falling dramatically, while the development of energy storage and electric vehicles is rapidly gaining pace.

An electrified LRT system would position Hamilton at the forefront of these developments and take full advantage of the efficiencies and benefits of the developing renewable energy economy. The cleaner Ontario's energy mix becomes, the cleaner the LRT will run. In the near future, it is entirely conceivable for the system to run exclusively on renewable energy, perhaps powered by the very buildings the LRT passes on its route.

3) Long-Term Thinking

Finally, I would encourage you to think beyond the few years of construction to the many decades and generations thereafter, when the benefits of building this project will vastly outweigh the short-term inconvenience. I encourage you to vote for a bold future vision for Hamilton, one of increased mobility, one of cleaner air, and one which will become part of the energy revolution that is already underway.

Sincerely,

A black rectangular redaction box covering the signature of Thorsten Klaus.

Thorsten Klaus, Dr.-Ing.