

## Solar covered parking lot information for pilot project in each YR municipality

Per average parking stall:

Energy - 3,500-4,000 kWh/yr

CO<sub>2</sub> reduction – 0.56 tons/yr

Cost per stall installed ~ \$15-25,000

\*depending on a range of variables including number, type of structure, pre-existing civil/mechanical considerations

Simple payback ~8-12 years for Class B electrical customers (In Ontario, with its low carbon intensity and distorted rate structure, solar PV doesn't represent a high ROI project?)

Revenue from each project would remain in York Region with work done through the Vaughan Branch of Spark Power

356 Bowes Road

Vaughan, ON L4K 1K1

877-504-1606

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Funding sources: no currently active provincial or federal programs supporting this type of deployment but with elections in the works, new funding such as the clean energy partnership might again become available <https://cleanairpartnership.org/cac/wp-content/uploads/2018/04/Municipal-Energy-Plan-program-slides-for-CAC-26-Jan-2018.pdf>

Estimates of temperature reduction of the urban heat island (UHI) effect of asphalt shading are over 20°C. Very important remedial consideration in the context of global warming.

If decisive action isn't taken to implement alternatives to Ontario's gas-fired power, increases in GHGE are estimated to rise above 300%.

Links that could be of use for staff –

Burnaby BC parking lot consideration info for review

<https://dailyhive.com/vancouver/burnaby-city-hall-solar-panel-parking-lot>

Michigan State University <https://ipf.msu.edu/about/news/solar-carport-initiative-earns-national-attention> <http://solarbyempire.com/why-solar/solar-options/118-parking-lot-canopies>