

# GROWING A DISTRICT ENERGY START-UP – IDEA 2016

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# start-up

*noun*

noun: **startup**

the action or process of setting something in motion.

"the start-up of marketing in Europe"

- a newly established business.

plural noun: **start-ups**; plural noun: **startups**

"problems facing start-ups and small firms in rural areas"



**By combusting natural gas  
to heat water to 120°C**



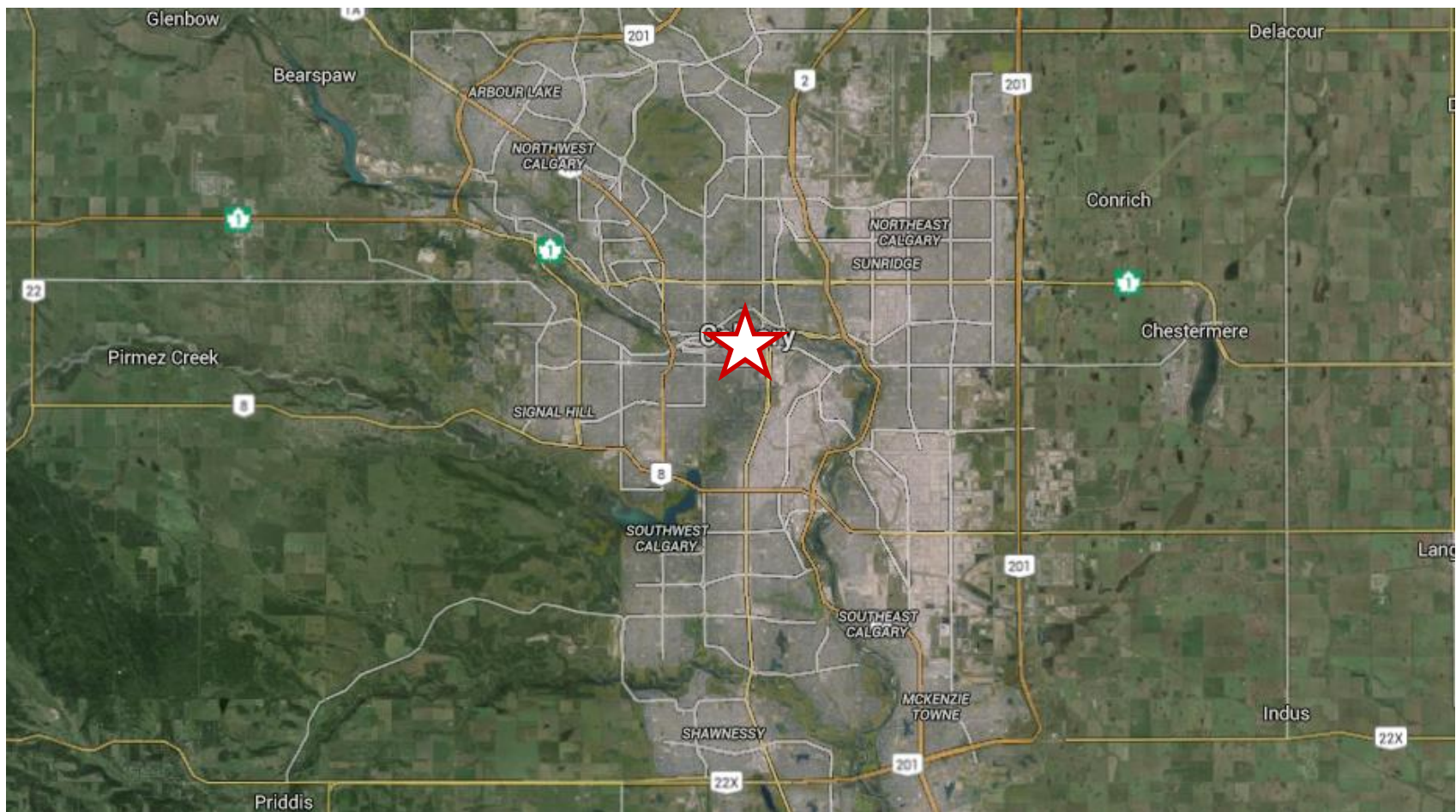
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# **“Starting a District Energy business is easy.”**

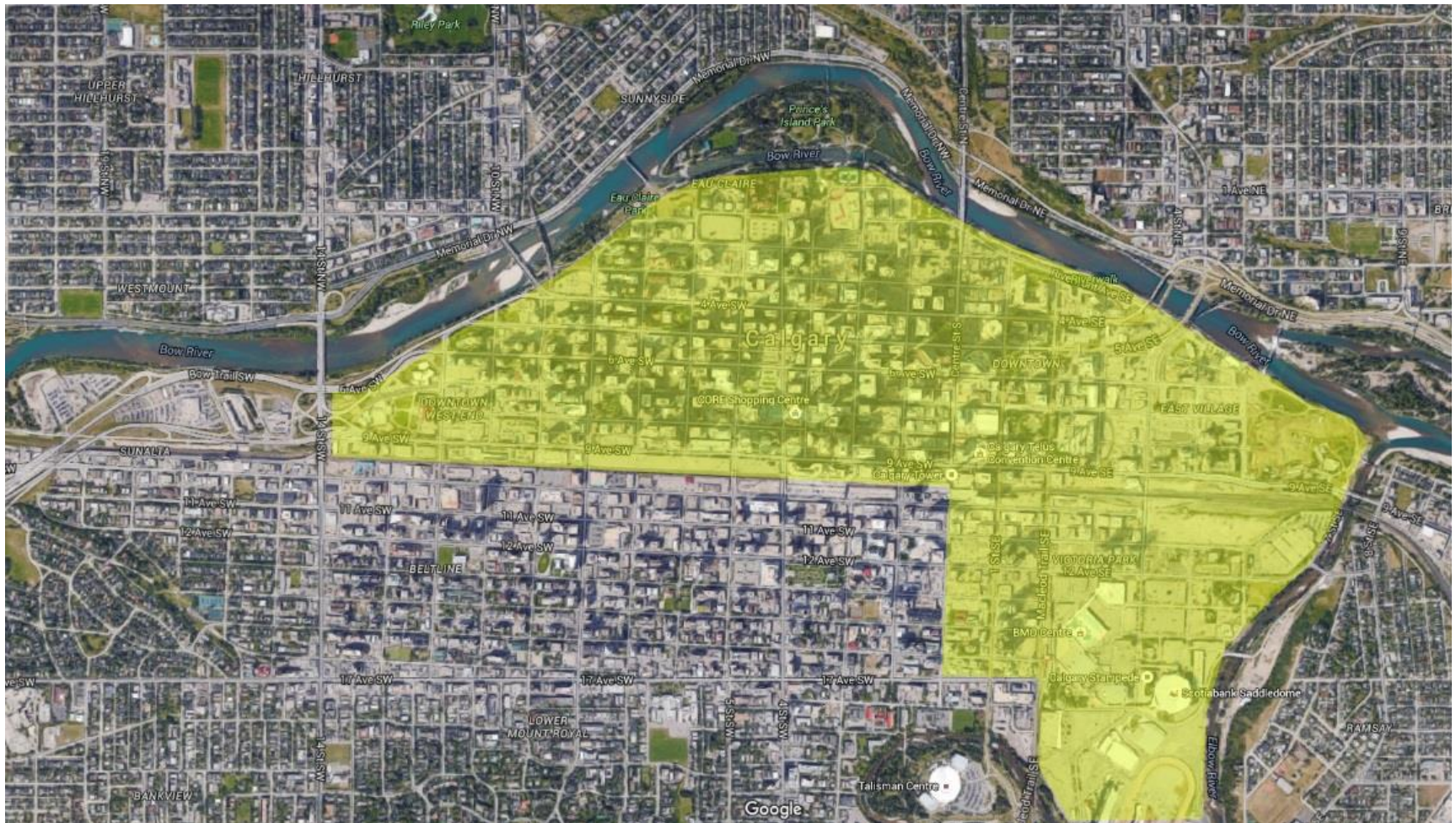
*No-one. Ever.*



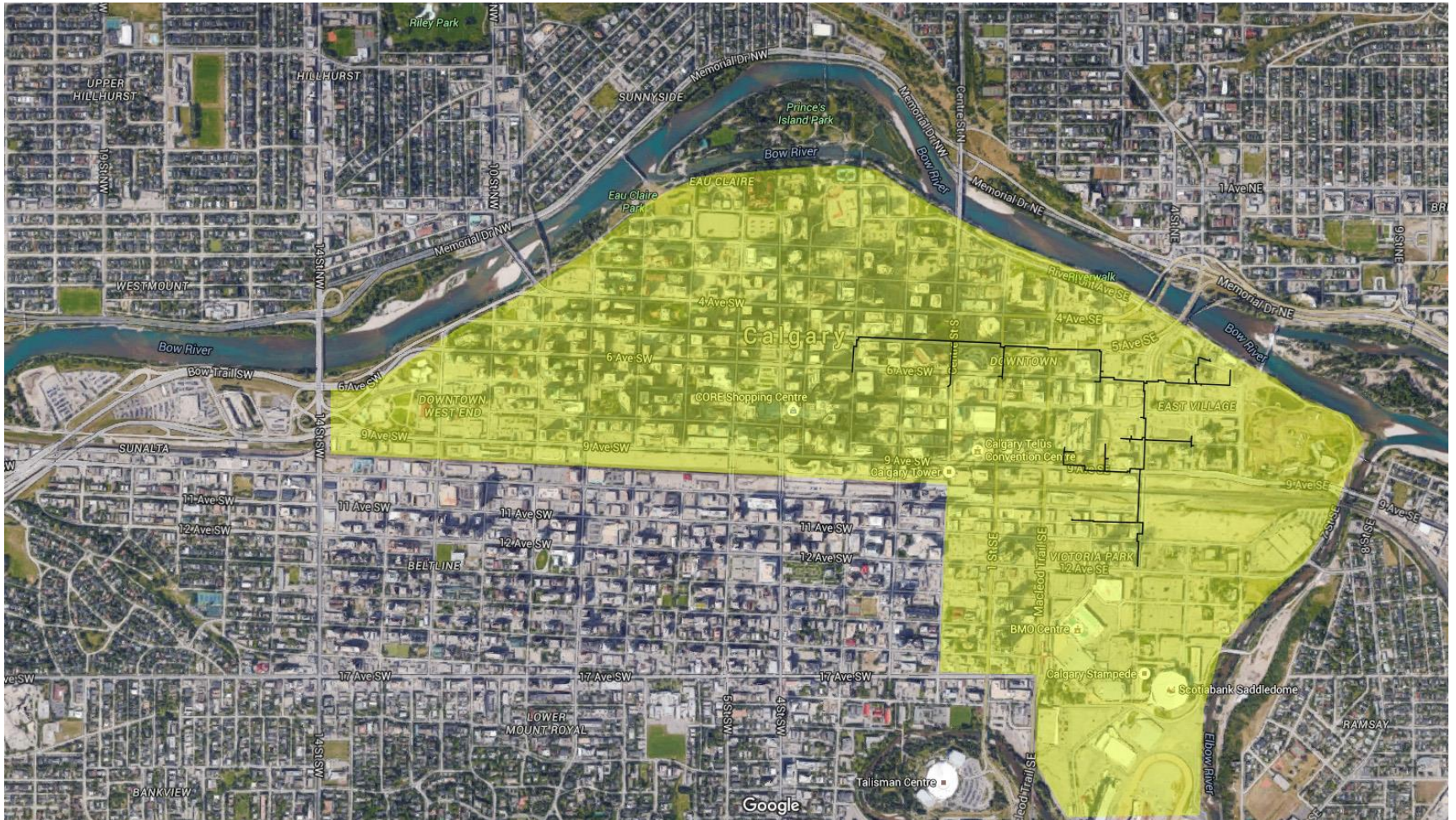












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# ENMAX DISTRICT ENERGY & CHP

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## BACKGROUND

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*Commissioned in 2010 with 35 MW of thermal heating capacity (21,000 ft<sup>2</sup> building).*

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*Partial funding of \$31M from federal and provincial program (CAMRIF).*

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*Nearly 8M ft<sup>2</sup> of connected or committed capacity.*

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*5500 meters of pipeline installed throughout downtown and East Village district.*

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*Added 20MW of additional boiler capacity in 2014 to meet demand (55 MW total).*

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*Commissioning 3.3 MW of CHP in Q4 of 2017.*

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# District Energy: Market Engagement

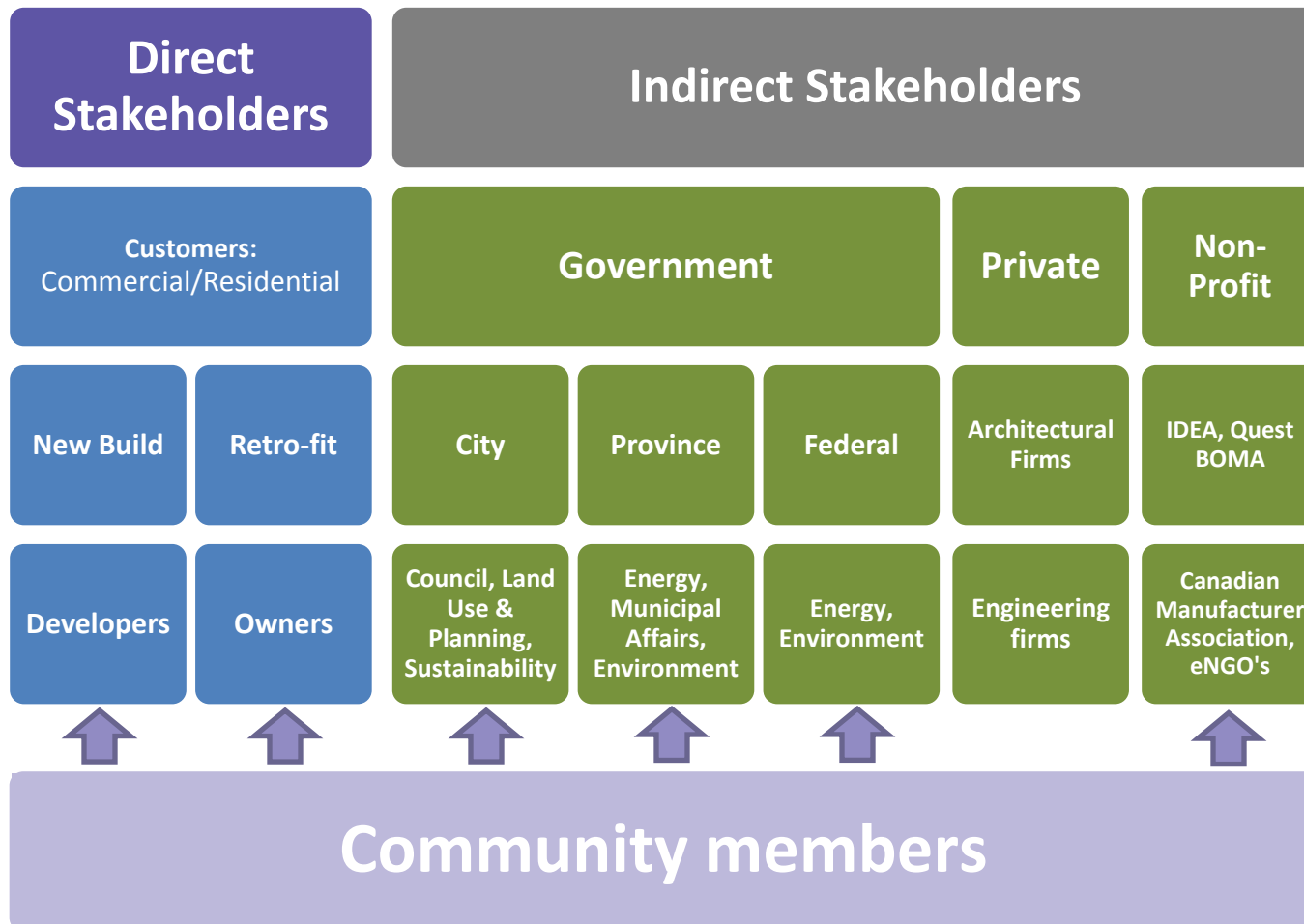






Image Credit: <http://simplestoryvideos.com/>



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## OUR CHALLENGES

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*First and only privately operated District Energy Centre in the province.*

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*Building owners and operators are unfamiliar with District Energy.*

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*Have strong value proposition but who wants to take on risk as early adopter.*

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*No pipe in the ground. New connections require costly civil construction.*

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*DE is non-regulated utility with no municipal mandate for buildings to connect.*

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*Constrained by resources to execute.*

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*Can we be competitive against self-generation over the contract term?*

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**Our price is based on our cost.**

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**Customers decision is based  
on their alternatives.**

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## OUR EVOLVING FINANCIAL MODEL

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*ENMAX requires no upfront capital.*

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*Recover the cost to connect each building + IRR  
over contract term (20 yrs).*

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*Fixed Capacity Charge (FCC) is the \$/kw/yr to  
recover cost. Gas is variable.*

*Ex. 1000 kw load x \$50 FCC = \$50,000/yr + gas.*

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*Customers can prepay all or portions of the FCC.*

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*Each customer to pay a pro-rated share of the  
generation, transmission, and distribution.*

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*Working to establish a market rate for heat.*

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*Thermal mapping downtown core and probability  
weighting of future connections.*

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## OUR SUCCESS

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*17 buildings under contract. 13 connected.*

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*Profitability is growing.*

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*Planning for the addition of new supply.*

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*Have created market pull for DE.*

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*Strong value prop to retrofit scenarios in market conditions where capital is in short supply.*

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*Set a standard for environmentally responsible energy generation in the Province.*

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*Other municipalities are looking to ENMAX to construct DE for their communities.*

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# Questions?