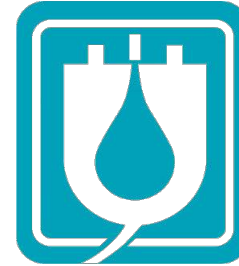


COBOURG HOLDINGS INC.



**Lakefront
Utilities
Inc.**



**Lakefront
Utility
Services
Inc.**

Municipality:

Service Territory:
Population:
Customers:
Electric Poles:
Total Km of Electric Lines
Total Km of Watermains
Total Km of Fiber Optic

Town of Cobourg

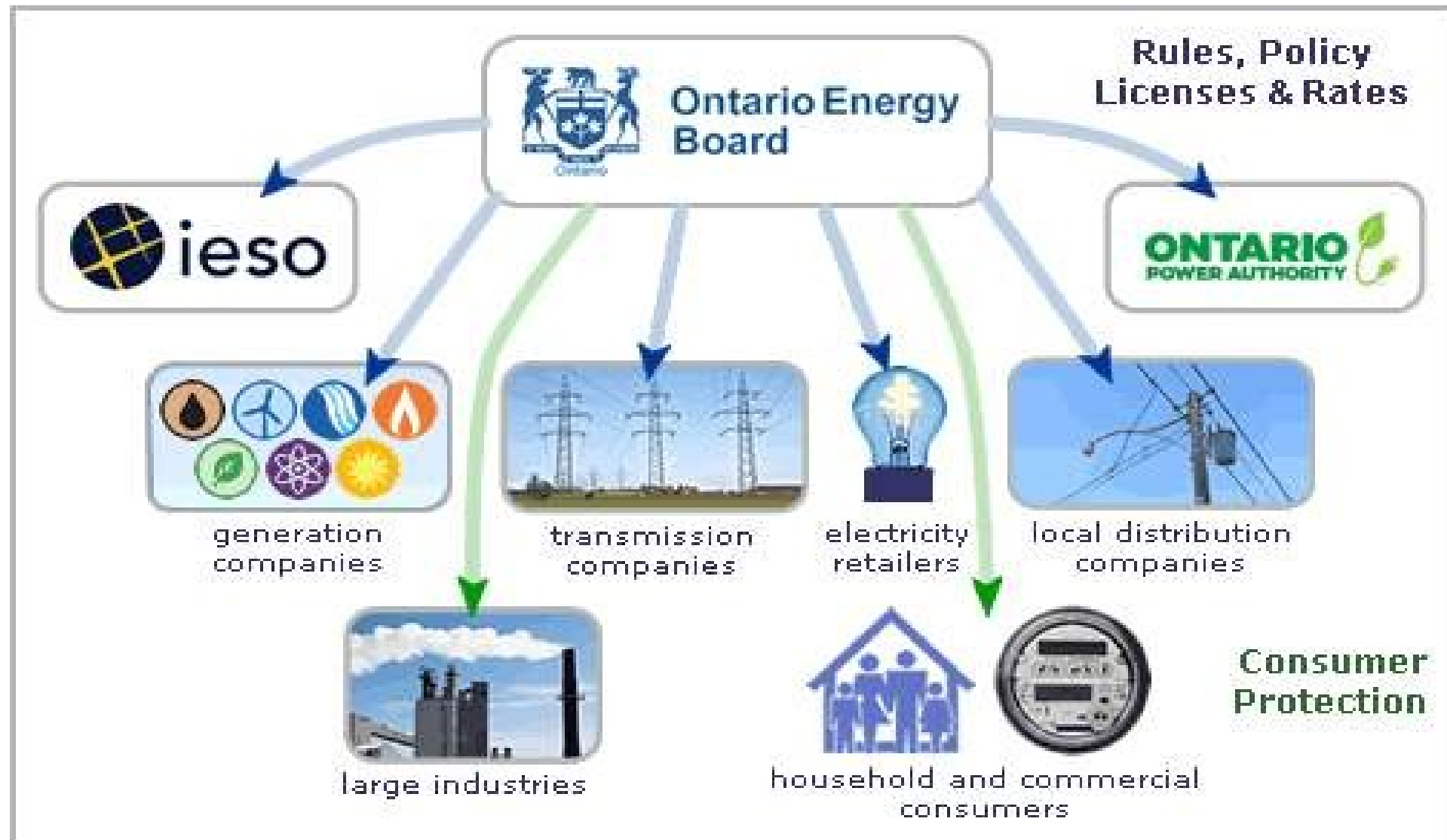
(Approx. 125Km from Toronto)

27.50 Sq. Km
21,000
10,800
3,460
218
126
23

Lakefront Utilities Inc.



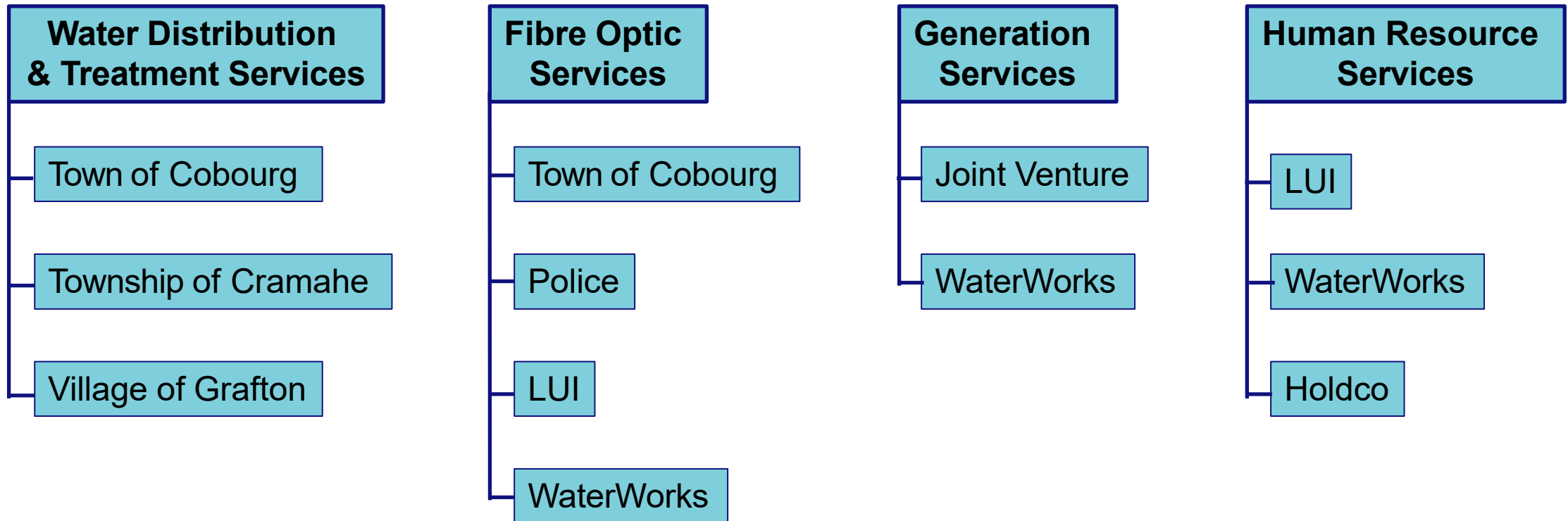
Lakefront
Utilities
Inc.



Lakefront Utility Services Inc.



Lakefront
Utility
Services
Inc.



Changing World of Utilities



Lakefront
Utility
Services
Inc.



Lakefront
Utilities
Inc.

- The overall rate of adopting new technologies is disrupting almost every industry in every country worldwide.
- The breadth and depth of these changes herald the transformation of entire systems of production, management, and governance.
- A perfect storm of new technology, aging infrastructure, the limitations of a centralized and fragmented energy system, and climate change is changing the business environment for utilities.
- Lakefront has to be nimble, adaptive and innovative.
- Innovation is not only defined as a technological disruption to industry but also related to our staff, with new ideas, application of better solutions that meet new requirements, unarticulated needs, or existing market needs.



The Electric Challenge



Lakefront
Utilities
Inc.

- Renewable Energy; Solar, Wind, Geo Thermal, etc.
- Energy Storage & Future Energy Surplus
- Smart Buildings & Net-Zero Homes
- Aged Power Generation & Transmission Systems
- Efficiencies, Conservation & Demand Management
- Environmental, Social & Economic Impacts
- Electric Vehicles & Aging Distribution Infrastructure
- Energy Policy & Regulatory Issues
- Smart Grid & Smart Cities
- Intelligent & Self-Healing Infrastructure
- Microgrid & Integrated Distributed Energy Resource
- Rising Supply & Falling Demand for Power
- Innovation, Automation & Digitalization
- Big Data, IoT, Block Chain & Artificial Intelligence



No need to sign up for
expensive outside services!

The Water Challenge



**Lakefront
Utility
Services
Inc.**

- Climate change - less predictability.
- Surface water almost fully utilized, leaving us dependent on groundwater in future, without protections to save groundwater from contamination.
- Aging water infrastructure—pipelines, towers, reservoirs, pumping stations
- Industrial-scale agriculture and degradation of water it produces.
- New contaminants—pharmaceuticals, hormones and endocrine-disrupting compounds—entering the water system and not getting filtered out.
- Changes in the hydrological cycle, in tandem with our other water problems, could actually create a bona fide water crisis in Canada.
- By wasting less, polluting less, reusing more, managing effectively and becoming more efficient in all uses of water –more than 1 billion people worldwide and approximately \$17 trillion of GDP could escape exposure to risks and challenges from severe water problems.

Lakefront as a Digital Utility



Lakefront
Utility
Services
Inc.



Lakefront
Utilities
Inc.

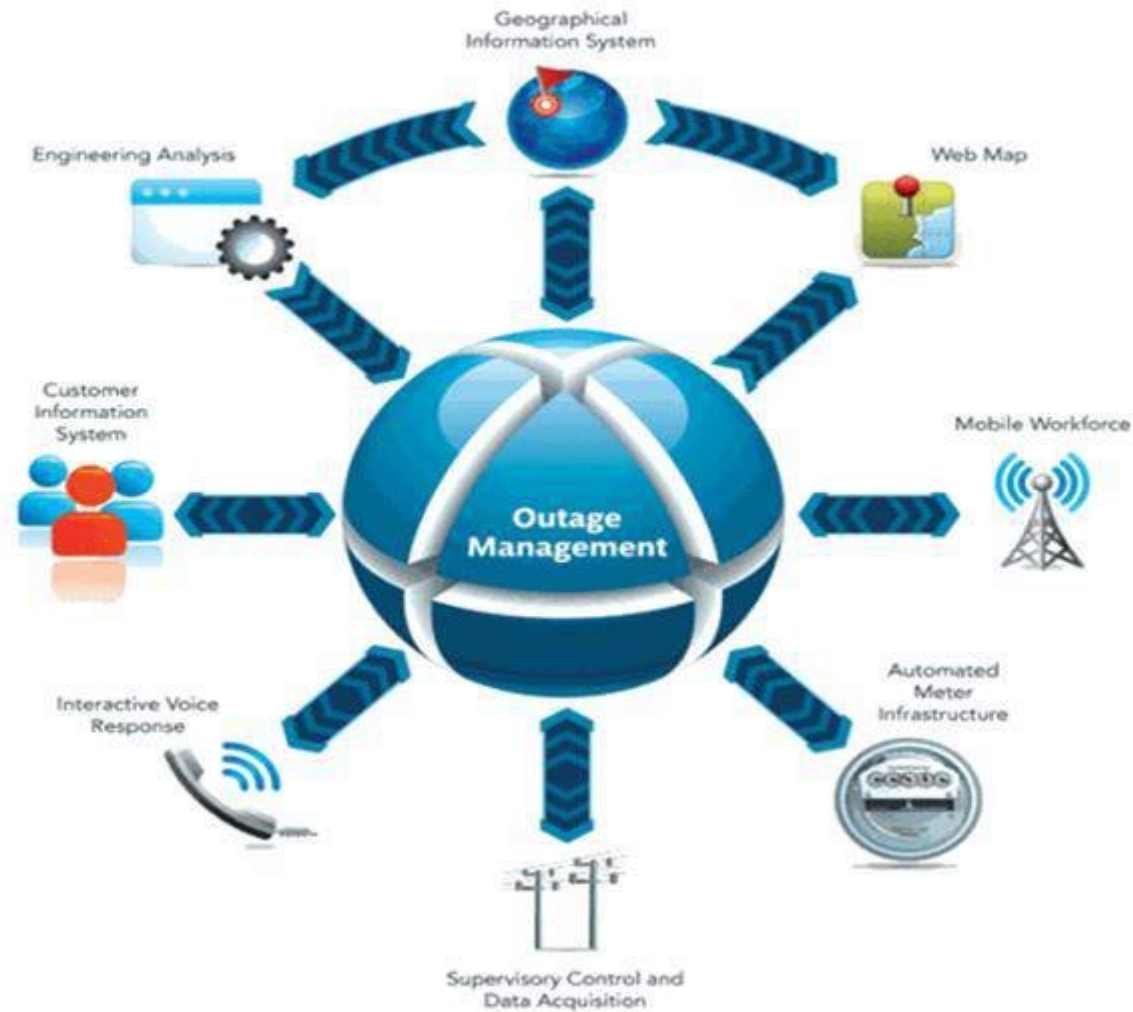


Control Room – 2021/2022



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Inc.

THE FLOW OF OUTAGE MANAGEMENT



Current Activities – 2021/22



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- ☐ Engineer Designs (VR /Augmented Reality) in field
- ☐ Smart Water Meter deployment & AMI collector
- ☐ Water Towers Antennae rentals to Telecom companies
- ☐ Fleet conversion to Electric / Hybrid
- ☐ EV Chargers to residential
- ☐ Battery Storage for Industrial customers with a JV partner
- ☐ Combine Heat & Power with clean micro turbines
- ☐ Solar Photovoltaic install on Purchased Power Agreement
- ☐ Mobile Asset Management with ability to Work From Home
- ☐ Pilot 5G Network utilizing Fiber broadband
- ☐ New Business & technologies; Block Chain, AI, IoT, etc.
- ☐ Enhanced Customer Engagement; Social Media, Website, Mobile App

Fleet Conversion to Electric/Hybrid



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GIS with Augmented Reality



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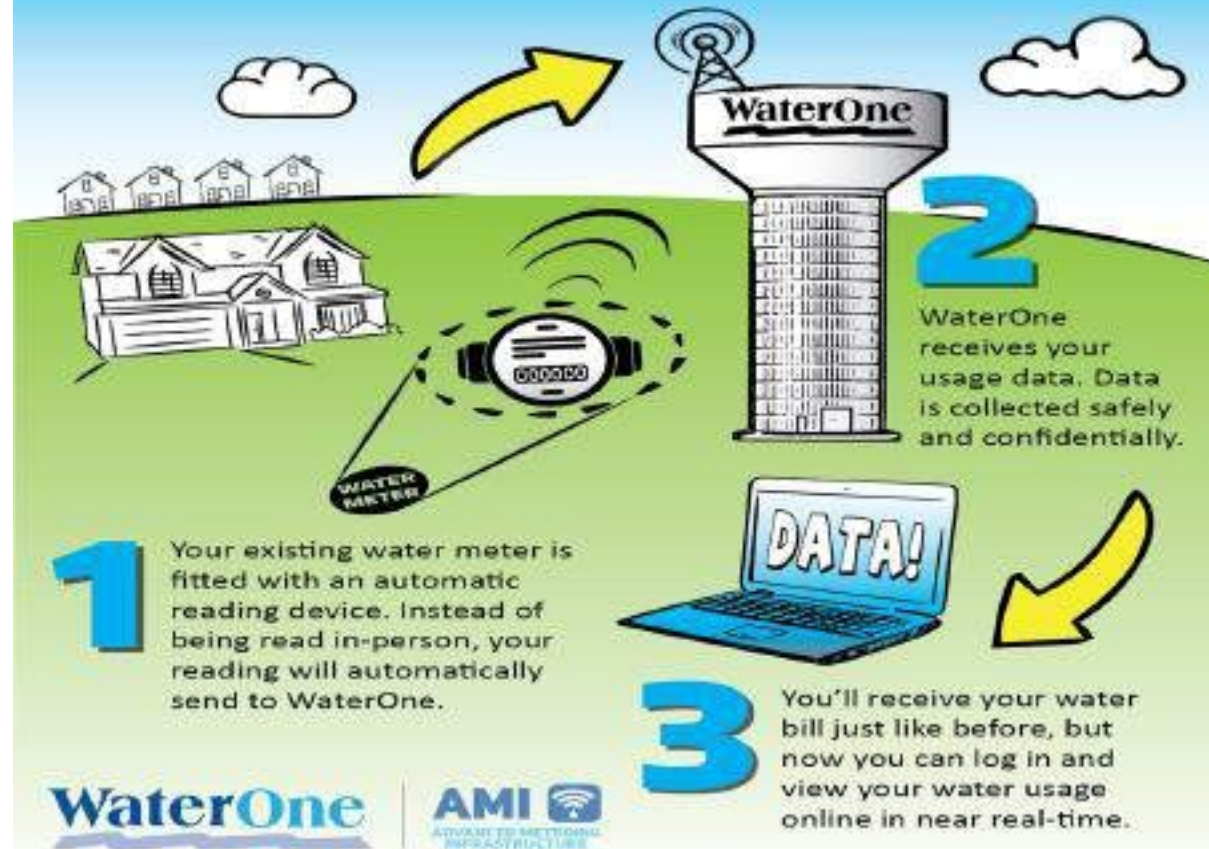


Smart Water Meters & AMI



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How Does AMI Work?



Tower Refurbished for Antenna Rental



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EV Chargers, Solar, Battery, Car Port



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Battery Storage



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Lease to Own CHP Generation



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FEATURES & BENEFITS



Inverter Based w/ One Moving Part

Low operating costs



Patented Air Bearing Technology

No lubricants or coolants needed



Low Emissions

No exhaust aftertreatment



High Power Density

Compact footprint, small modular design



Stand Alone Or Grid Connect

Supports aging utility infrastructure



Fuel Availability

Operates on gaseous, renewable, and liquid fuels



Free Clean Waste Heat

Thermal energy for cogeneration/trigeneration



Remote Monitoring

View performance and diagnostics 24/7



Scalable To Match Demand

Multiple applications and industries



Potential Emissions Credits

Offset project costs



Solar – Cobourg Water Treatment Plant



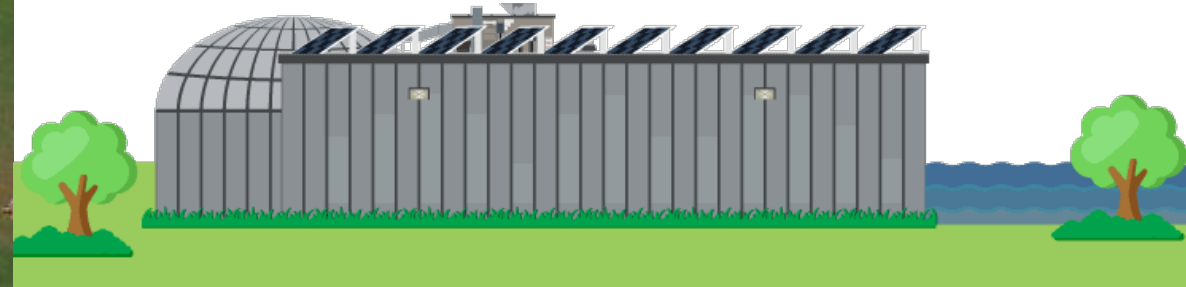
Lakefront
Utility
Services
Inc.



Cobourg Water Treatment Plant - Cobourg, ON

Real-time Solar Output: **34487.9 W**

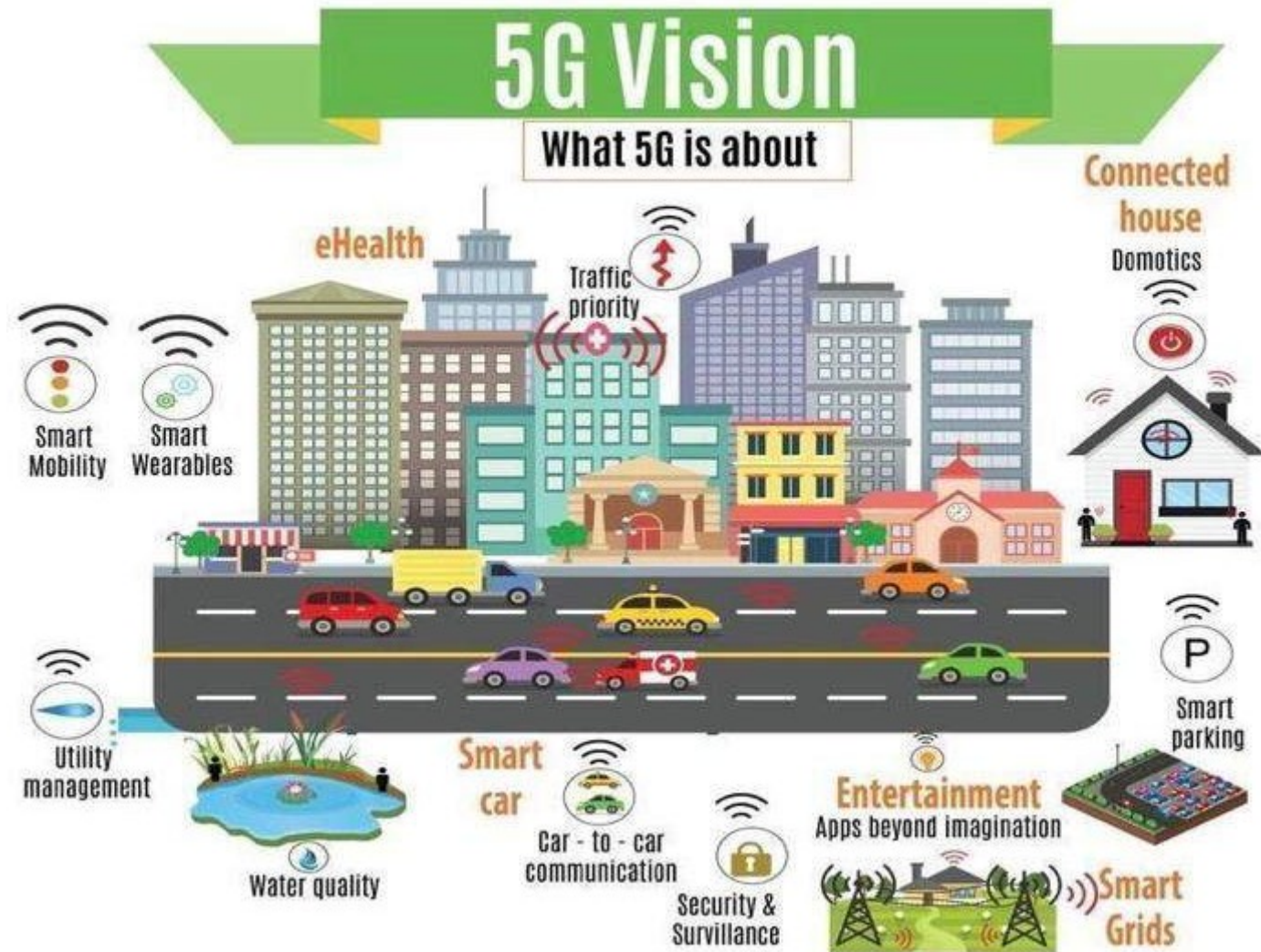
Total Output Today: **64.2 kWh**



5G Pilot / Partnership - 2022



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Stakeholders Engagement Demo



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 **SCREAMING
POWER**

