

zerofootprint™

Ron Dembo



Waterloo,
let's change the story...

once upon a time
there was a
telephone..

Bell



fast forward



the story has
changed!

once upon a time...

people smoked
at work..



and then
nonsmokers took
ownership of their air

the story has
changed!

once upon a time we
threw everything out

now we “own” our trash



the story has
changed!

Jane Goodall

chimps and baboons



chimps





baboons

we are
baboons!

we
invented waste

so...
how do we
change the story?

This is what we at
zerofootprint™
are doing to
change the story.

we believe
engagement is an
untapped resource

we engage
individuals
to change
their behavior

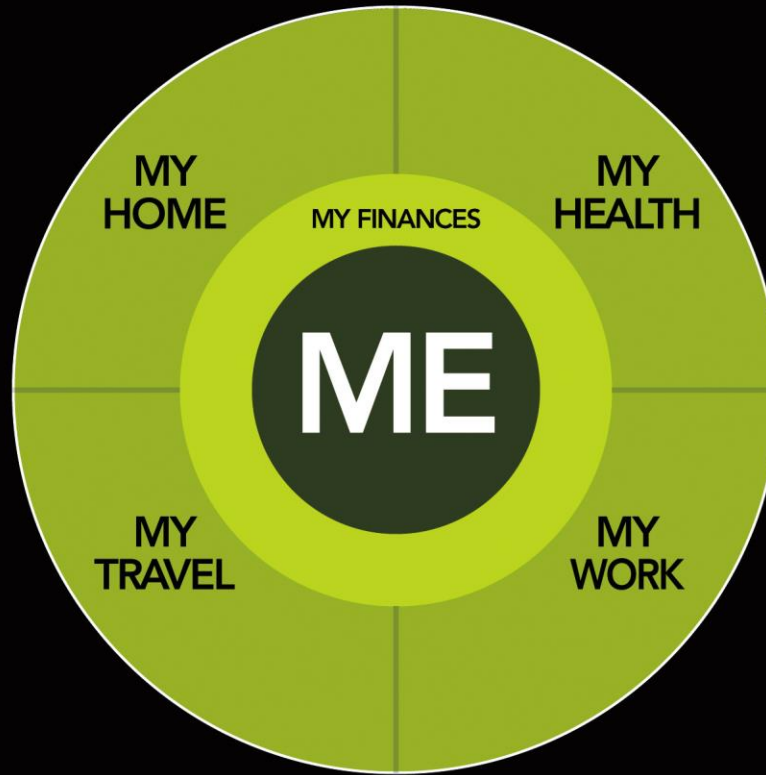
our customers are
large organizations

why
now?

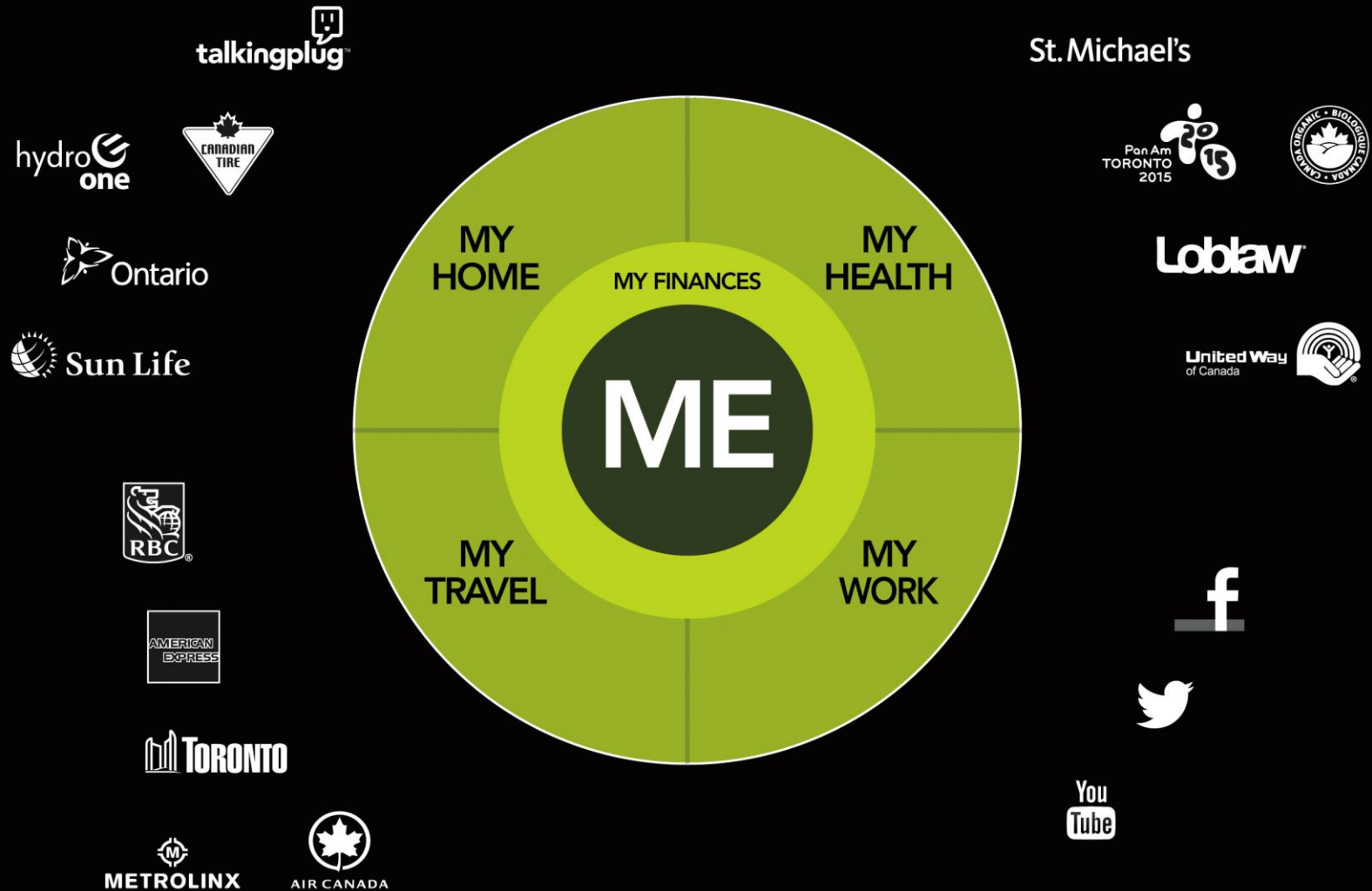
a perfect storm

the “internet of things”,
sustainability,
big data

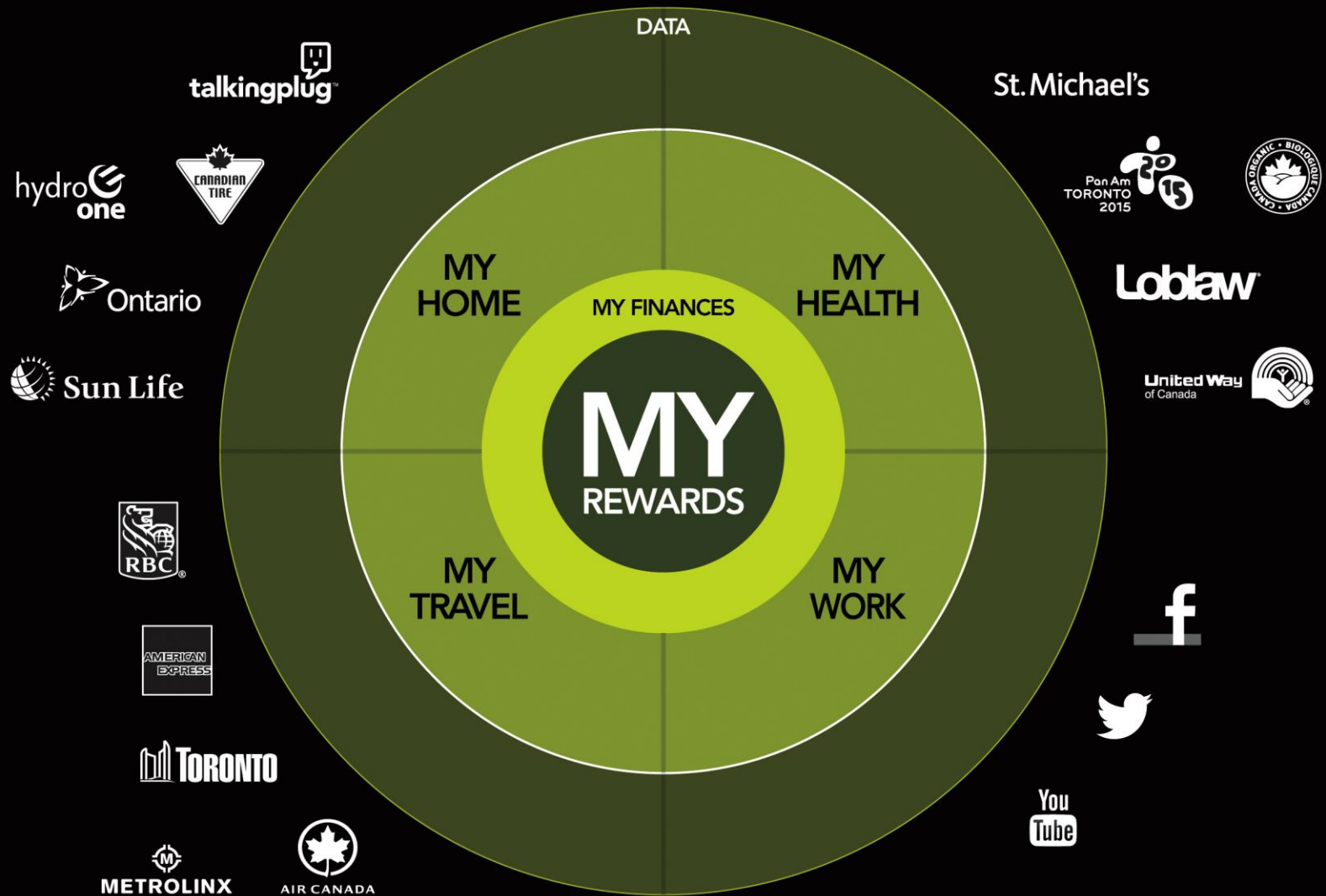
the measured self



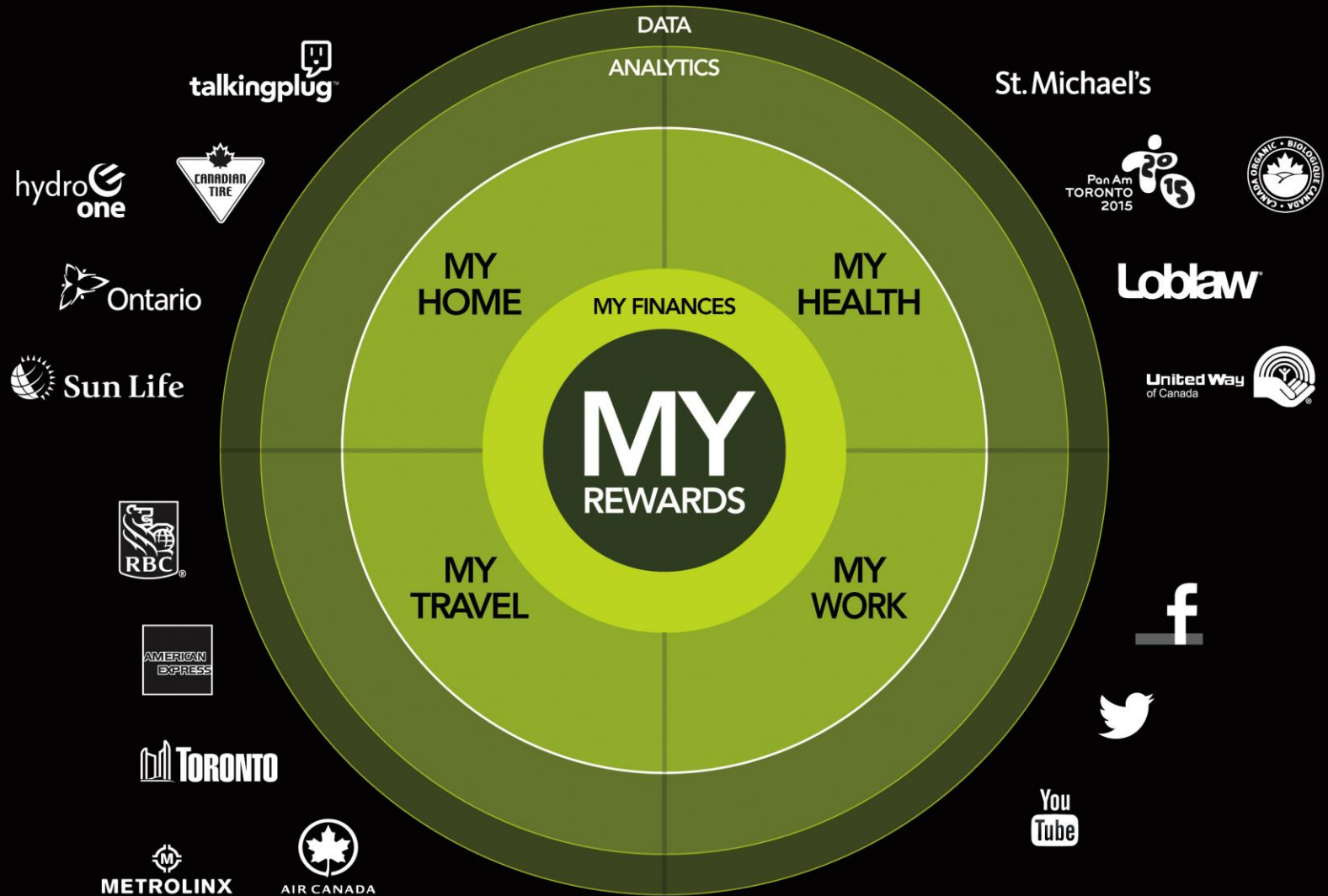
the brands they interact with



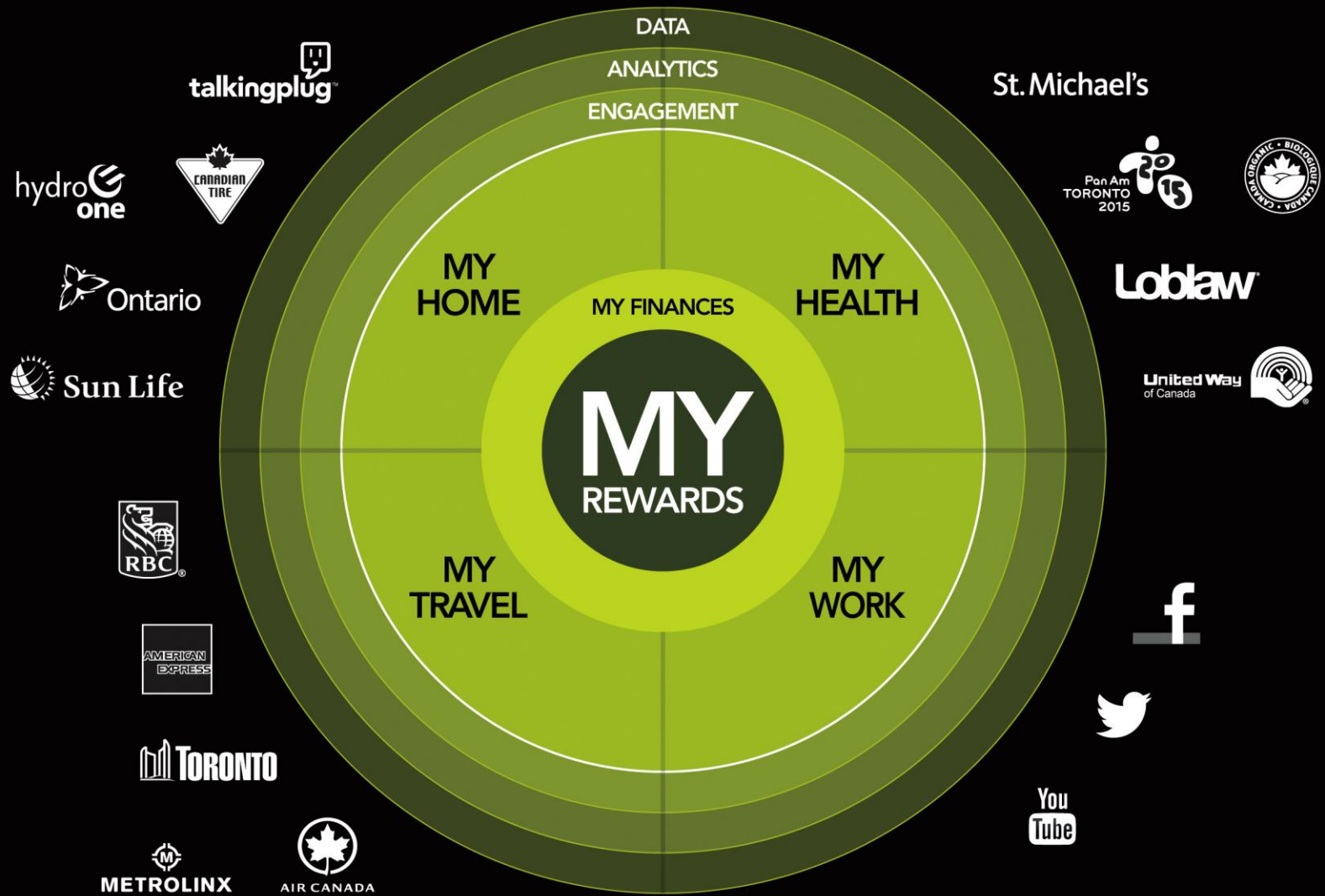
VELO™ Engagement Platform



VELO™ Engagement Platform



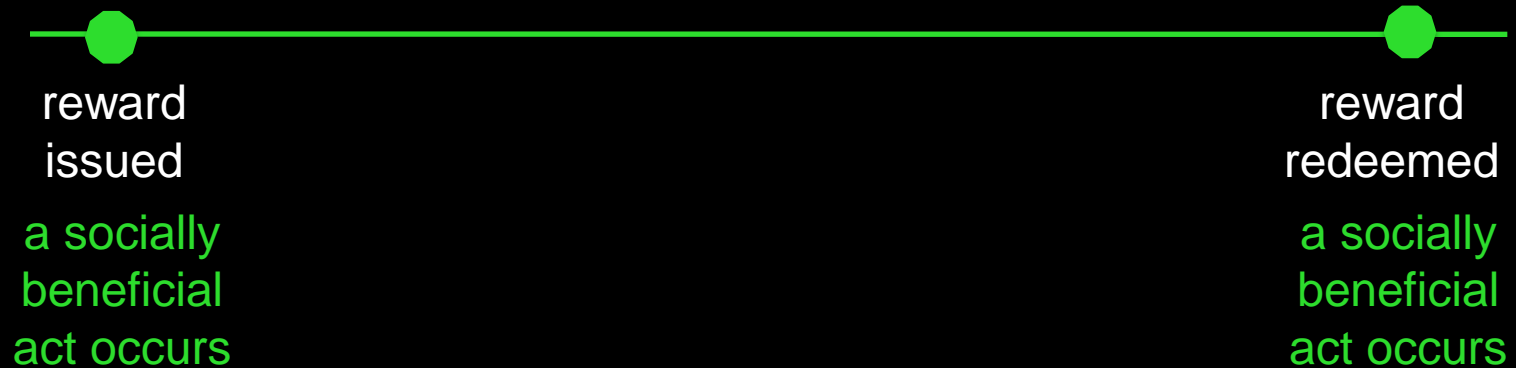
VELO™ Engagement Platform



zerofootprint™ REWARDS

.. an evidence based rewards scheme that promotes socially beneficial behavior.

lifecycle of a Zerofootprint point



the bottom line

When a point is issued and then redeemed the world has become **more sustainable.**

example: **issuing**

walking 30 minutes a day
riding for the cure
reducing energy usage
using less paper
volunteering ...

all evidence-based


example: redemption

energy efficiency retrofits
donating points to charity
carbon-neutral flights
etc.

all evidence-based

case study 1



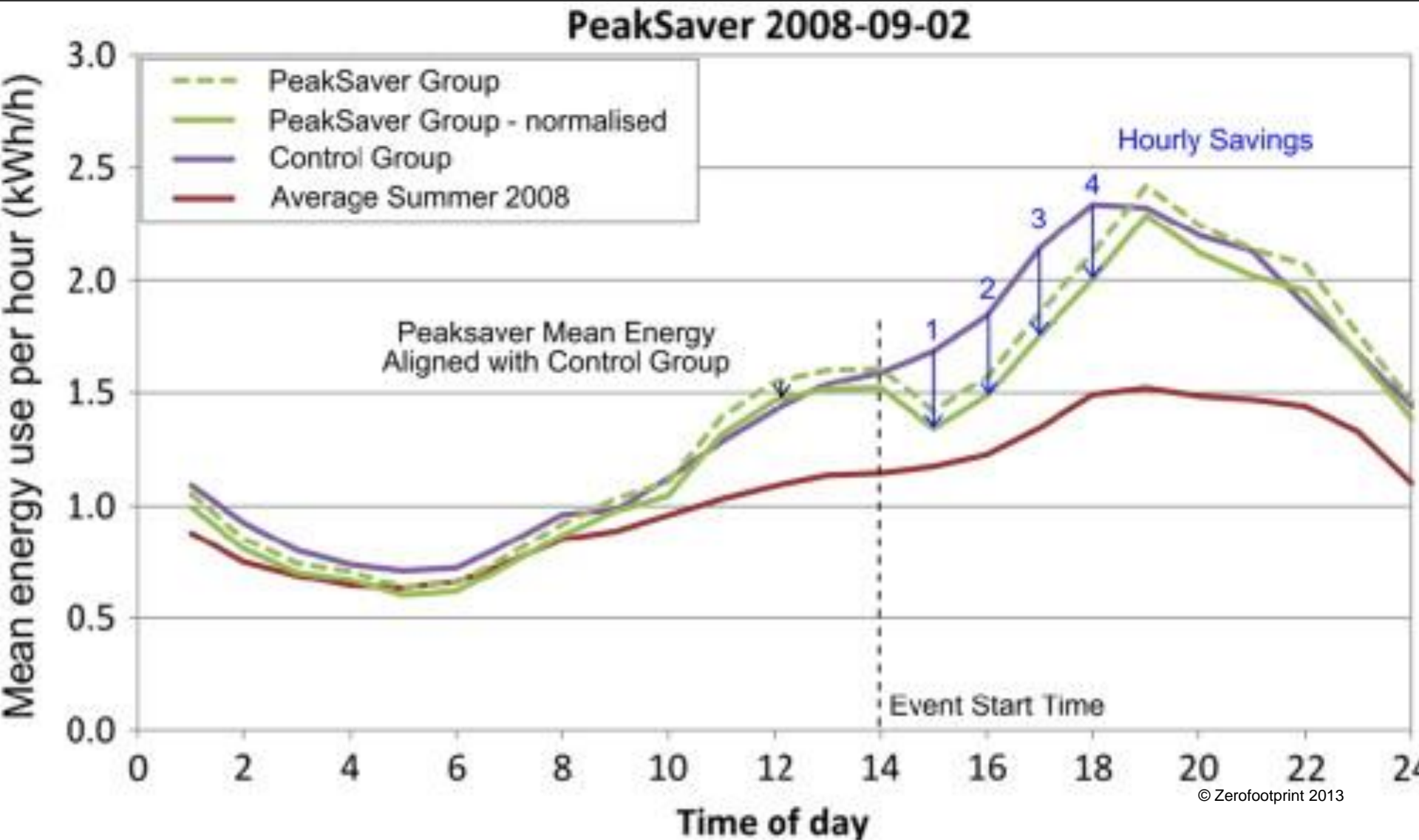
Canadian Breast Cancer Foundation
CIBC  **Run for the Cure[†]**

case study 2

virtual run for the cure



case study 3



case study 4



WORLD URBAN CAMPAIGN
Better City. Better Life

#IMACITYCHANGER

case study 5

energy efficiency in large buildings



Winner best project category Canadian Clean 50 Awards 2013



not seen in other buildings



agree



helps understand energy



neutral



disagree



case study 6

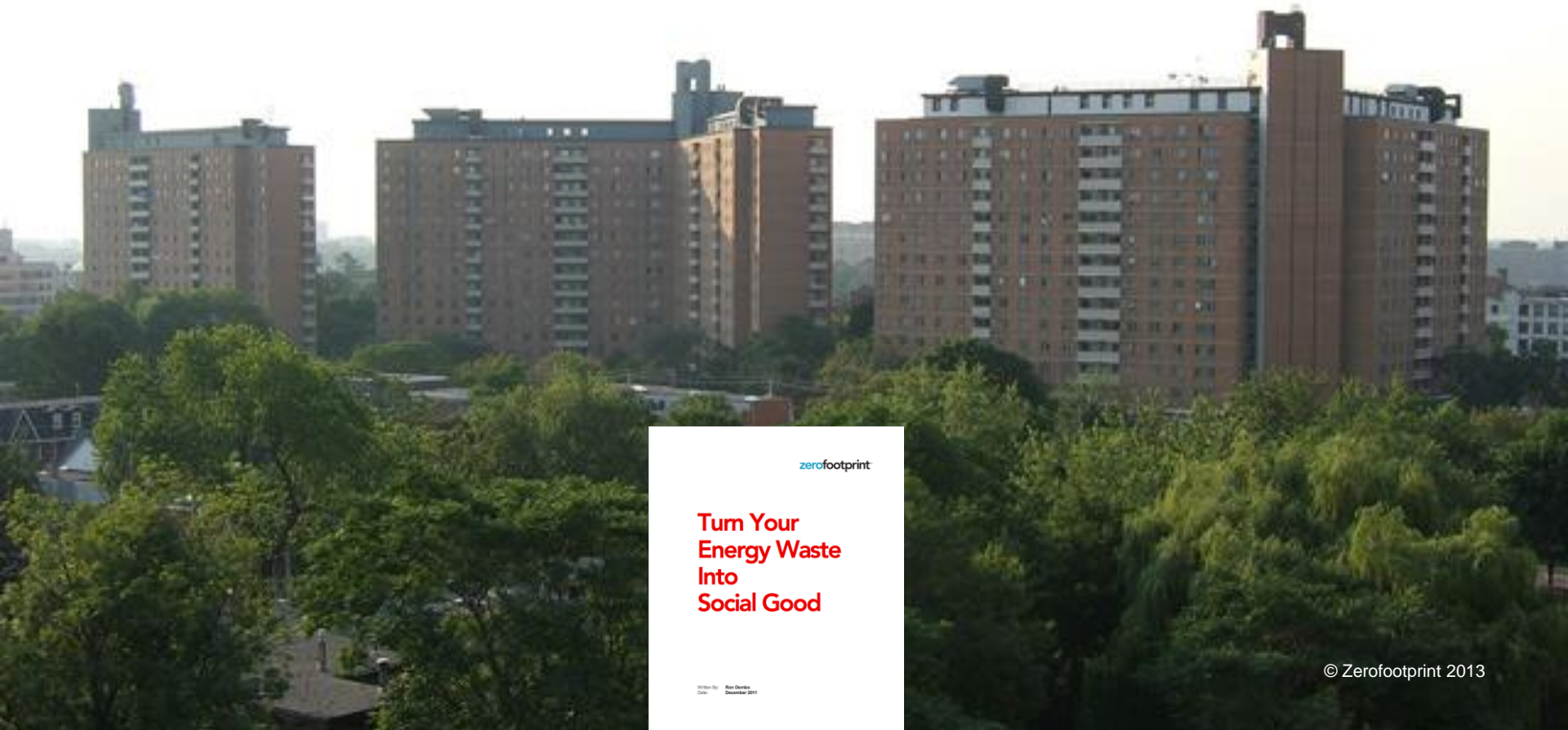
SUGAR NATION ///

A NATION IN NEED OF REHAB

AMERICA'S BIGGEST PUBLIC
HEALTH CRISIS RESULTS FROM OUR
ADDICTION TO THE SWEET STUFF

case study 7

TCHC: Turn waste into social good



zerofootprint

**Turn Your
Energy Waste
Into
Social Good**

Written By: Ron Denker
Date: December 2011

© Zerofootprint 2013

case study 8

turn waste into social good

children/schools are rewarded for energy saved in parent's home



a single currency for
social good
(sustainability)

*It's easy to
earn rewards
– and change
the world!*

Know Your Life.

Welcome back
Ron.



ALERTS

- Your energy usage has gone up >
- You are eligible to redeem **300** points! >
- You have **3** invitations pending for events. >
- You have **5** new coupons >

[My Utilities](#)

[How to Save](#)

[How to Earn Points](#)

Get Points for Living Green!

1
CONNECT

2
EARN

3
REDUCE

4
REDEEM



© Zerofootprint 2013.

[My Campaigns](#)

[My Groups](#)

[How to Earn Points](#)

Work as a Team and Redeem!

1
CONNECT

2
EARN

3
REDUCE

4
REDEEM

[My Exercise](#) [My Health Actions](#) [How to Earn Points](#)

Get Rewarded for Exercising!

1
JOIN

2
EARN

3
IMPROVE

4
REDEEM

- [My Car](#)
- [My Commute](#)
- [My Bike](#)
- [My Walking](#)
- [My Flights](#)
- [How to Earn Points](#)

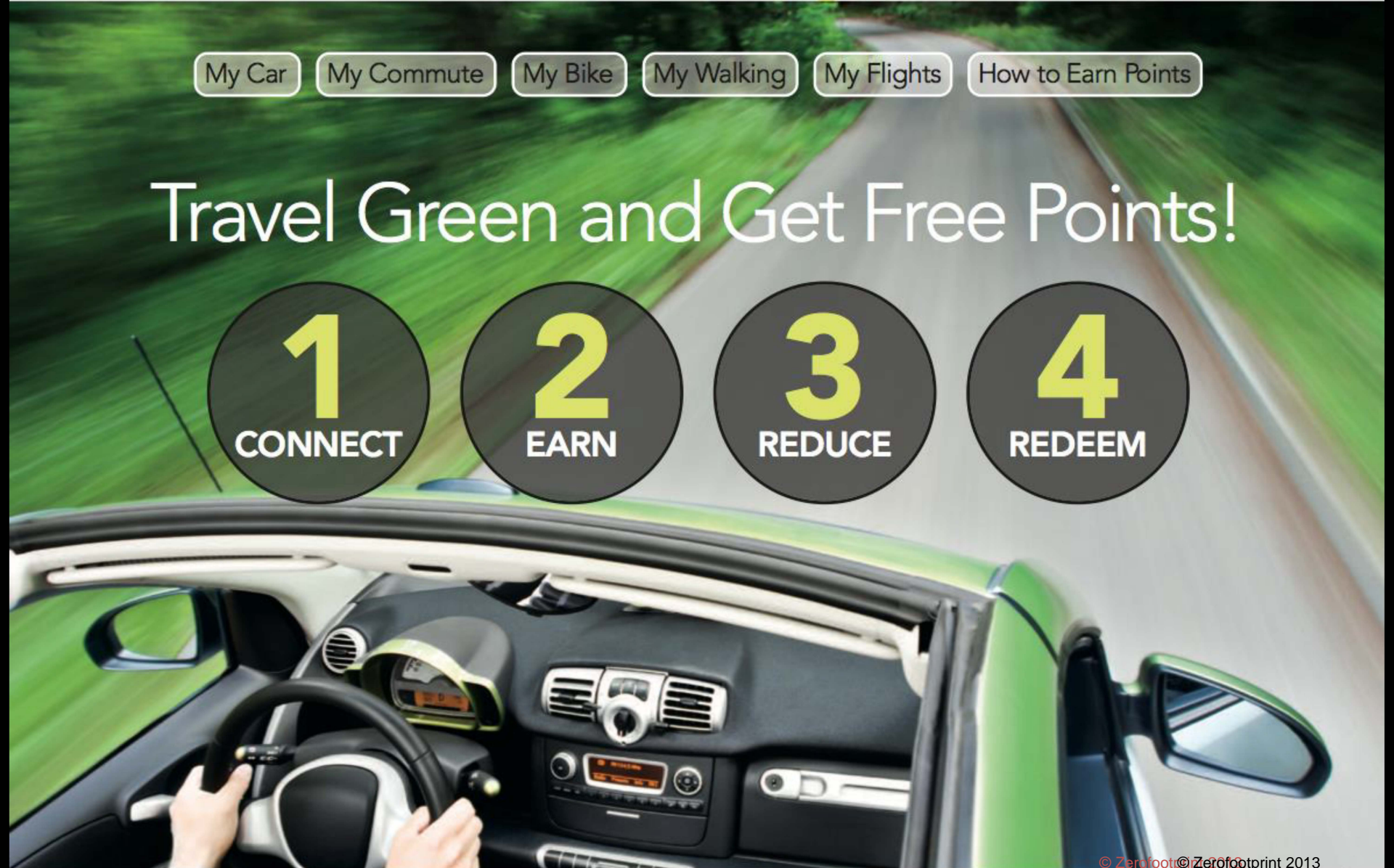
Travel Green and Get Free Points!

1
CONNECT

2
EARN

3
REDUCE

4
REDEEM



© Zerofootprint@Zerofootprint 2013

You are Enrolled in these Campaigns



Walk 30 minutes a day

Type: **HEALTH**
Progress: **10%**
Status: **IN PROGRESS**

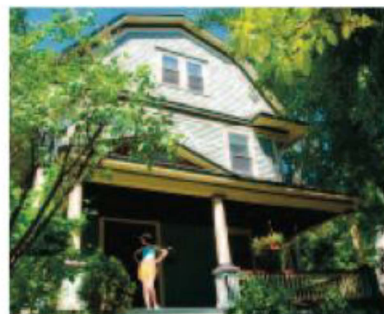
TIME REMAINING:



Bike to work for a month

Type: **REDUCTION**
Progress: **8%**
Status: **IN PROGRESS**

TIME REMAINING:



Home Weatherization

Type: **REDUCTION**
Progress: **26%**
Status: **IN PROGRESS**

TIME REMAINING:



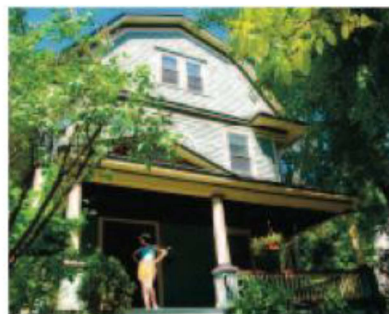
Your Personalized Points Offer



Join the CIBC Run for the Cure's virtual run

Join & earn points! Sign up for the Canadian Breast Cancer Foundation CIBC Run for the Cure's virtual run and help make a significant impact to reduce the burden of breast cancer through research, education and awareness.

EARN **100** POINTS



Join Enbridge's Home Weatherization Program

The Home Weatherization Program is designed to make your home more energy-efficient and reduce your energy bills at no cost to you. Participation is entirely voluntary and free of charge. Participate now and get 100 points.

EARN **100** POINTS



"Walk 30 minutes a day" with Nike+ SportBand

Be a part of the "Walk 30 minutes a day program" and track your pace, distance, time and calories burned using the Nike+ SportBand. Get fit and earn points at the same time!

EARN **2000** POINTS



Join the Blood Pressure Makeover Action Plan

The Heart & Stroke Foundations' 6-Week Blood Pressure Makeover will teach you how to make small changes to your daily routine to help you manage your high blood pressure more effectively. You will earn 50 points when you join.

EARN **50** POINTS



My Utilities


[How to Earn Points](#)


MONTHLY ▼ ◀ SEPTEMBER **OCTOBER** NOVEMBER ▶ Total **1706.58** kWh Compared to 2012 **6.6%** ↘ Potential Savings **\$165**/yr

MONTHLY UTILITY BILL			
	Electricity	Natural Gas	Water
Your SPEND	\$97	\$253	\$64
TREND	↘	↘	↗
RANK <small>relative to peers</small>	worst 1/3	best 1/3	average 1/3
Per month you could SAVE	\$62	\$83	\$17

My Electricity

[How to Earn Points](#)

SPENDING 

LAST 24 HOURS 

Compare to previous period

Total Electricity

\$2.09

Compared to Previous

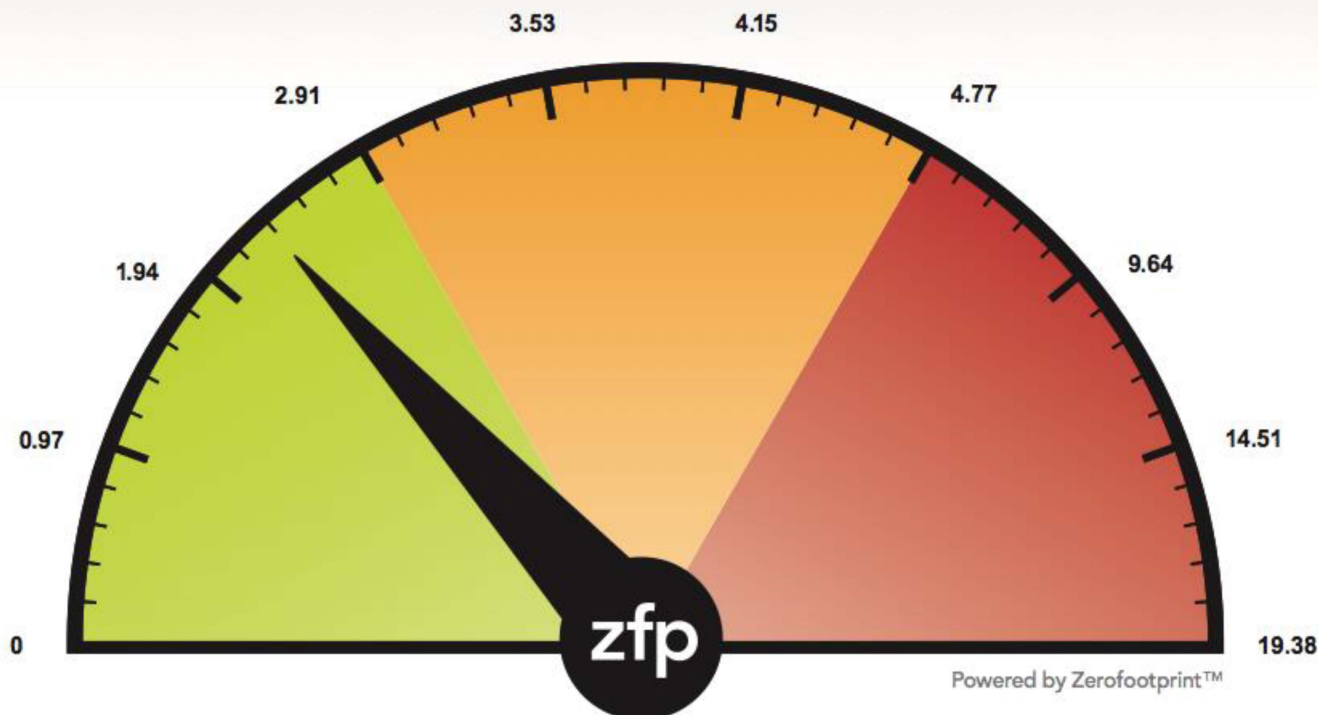
9.6% 

Potential Savings

\$90 /yr

HOURLY SPENDING last 24 hours

 Low  Average  High



Powered by Zerofootprint™

My Electricity

[How to Earn Points](#)

TIME OF USE

YEARLY

Compare to previous period

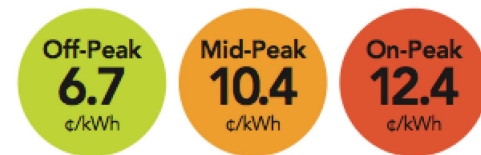
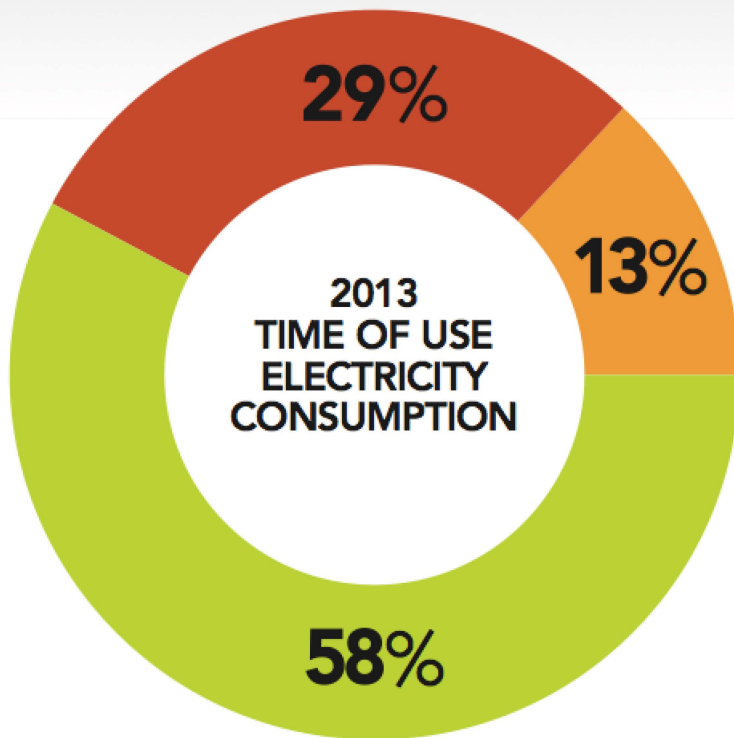
Total
1706.58 kWh

Compared to 2012
6.6% 

Potential Savings
\$165/yr

TIME OF USE ELECTRICITY CONSUMPTION 2013


See during which periods you used the most electricity.



CIBC Virtual Run



ACTIVITY 

OVERALL PROGRESS 

OVERALL CAMPAIGN PROGRESS

MY ACTUAL

0337

mi

TARGET

0500

mi



67% COMPLETE



INCENTIVES

EARN 5 POINTS

TIME REMAINING:




57
days

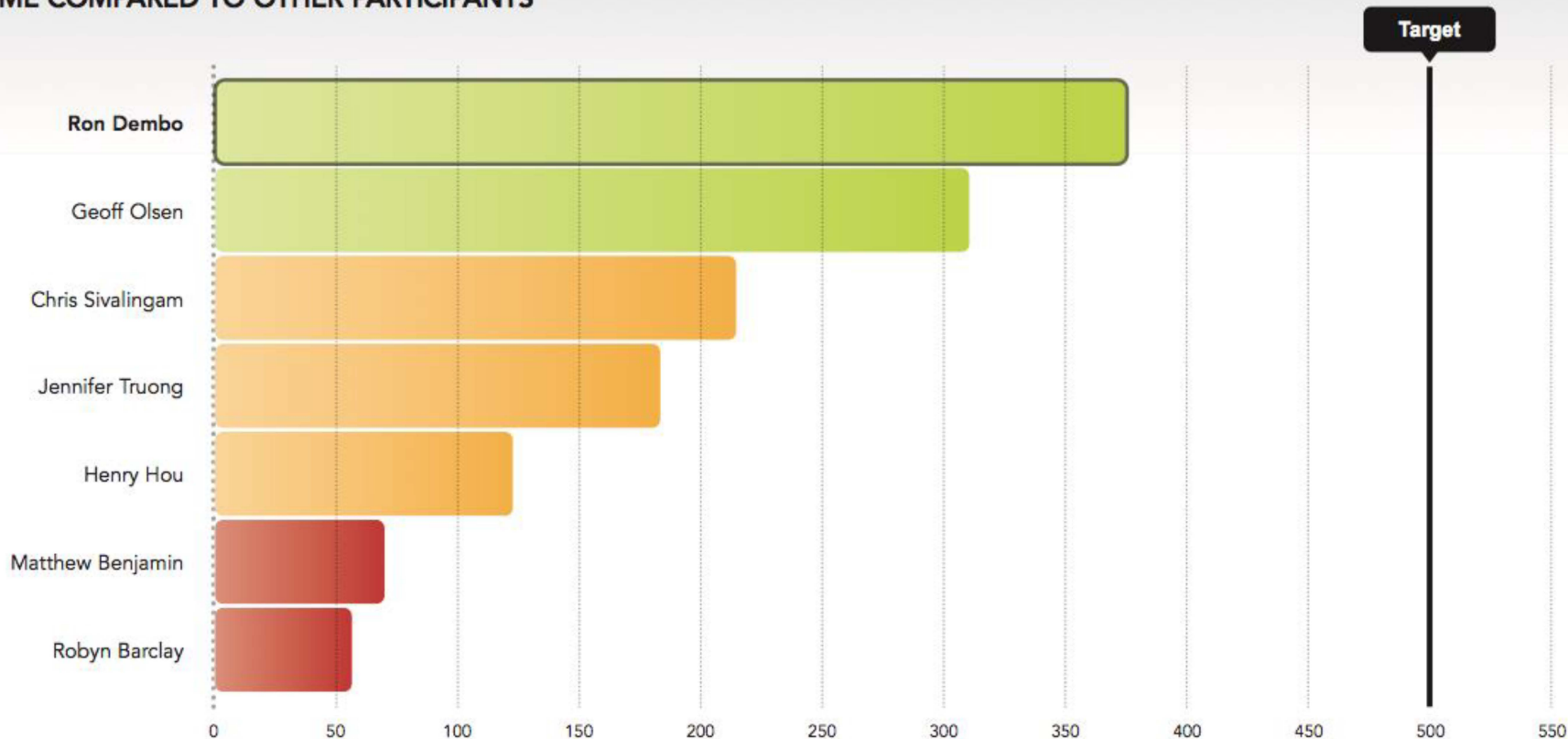
CIBC Virtual Run



ACTIVITY 

GROUP PROGRESS 

ME COMPARED TO OTHER PARTICIPANTS



© Zerofootprint 2013.

Walk 30 Minutes a Day



MY ACTUAL



total minutes walked

TARGET



minutes walked per day



INCENTIVES

EARN 5 POINTS

TIME REMAINING:



10% COMPLETE

engagement and resilience

resilience is the
ability to recover
readily from
adversity

climate change

=

volatility

resilience

=

hedging volatility

hot days in Toronto
will treble
by 2030

yet
we build today for
yesterday's climate!

electricity demand
will have higher and
higher peaks

kW demand



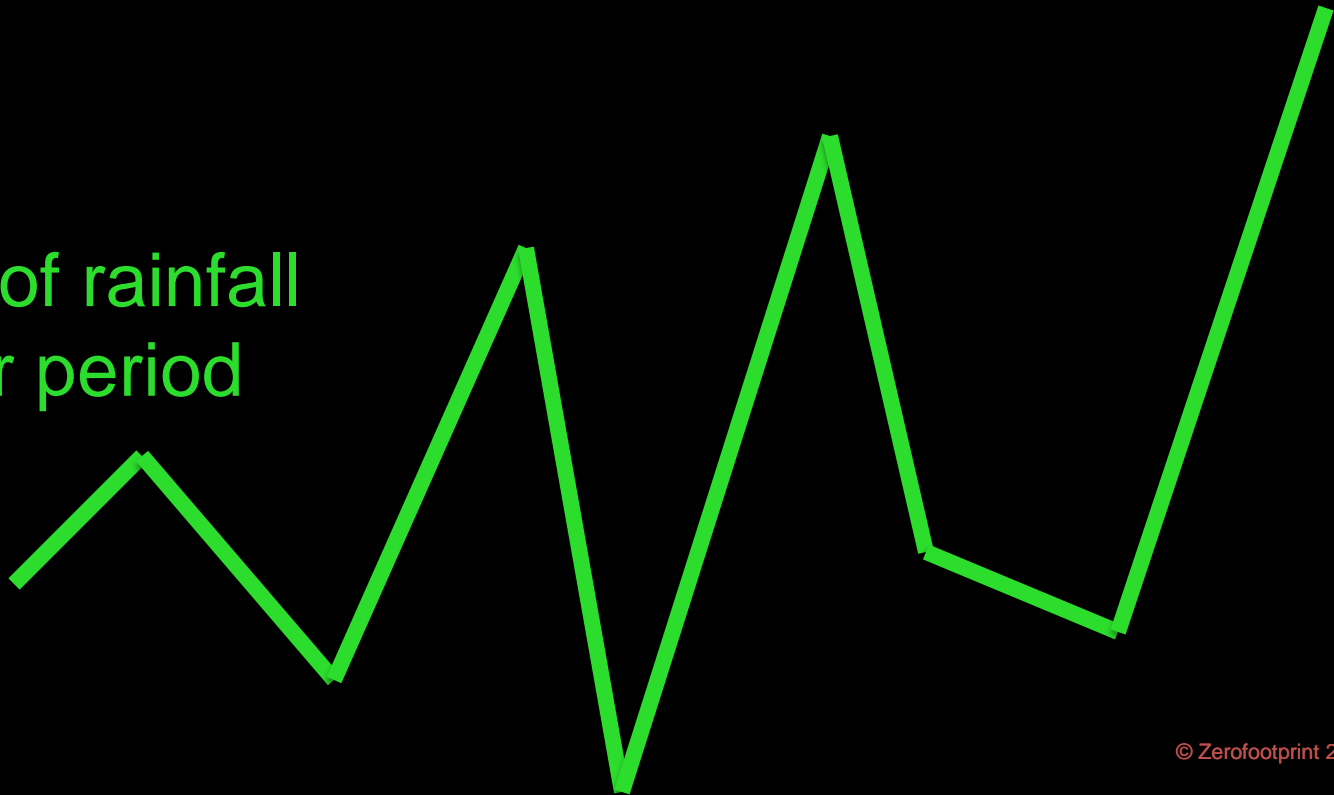
10% of peak

=

40% of cost

weather will become more extreme

inches of rainfall
In 24 hr period



peak rainfall can have a huge cost

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CBCnews | Toronto

LIVE Toronto More Streams **99.1** FM radio one Listen Live

Home World Canada Politics Business Health Arts & Entertainment Technology & Science Community Weather Video

Canada Toronto News Events Weather Programs Video Audio Contact Us

Toronto floods leave power system 'hanging by a thread'

Some 16,000 people still without power

CBC News Posted: Jul 9, 2013 5:43 AM ET | Last Updated: Jul 10, 2013 5:58 AM ET



Toronto struggles to get back on track 2:49

Stay Connected with CBC News

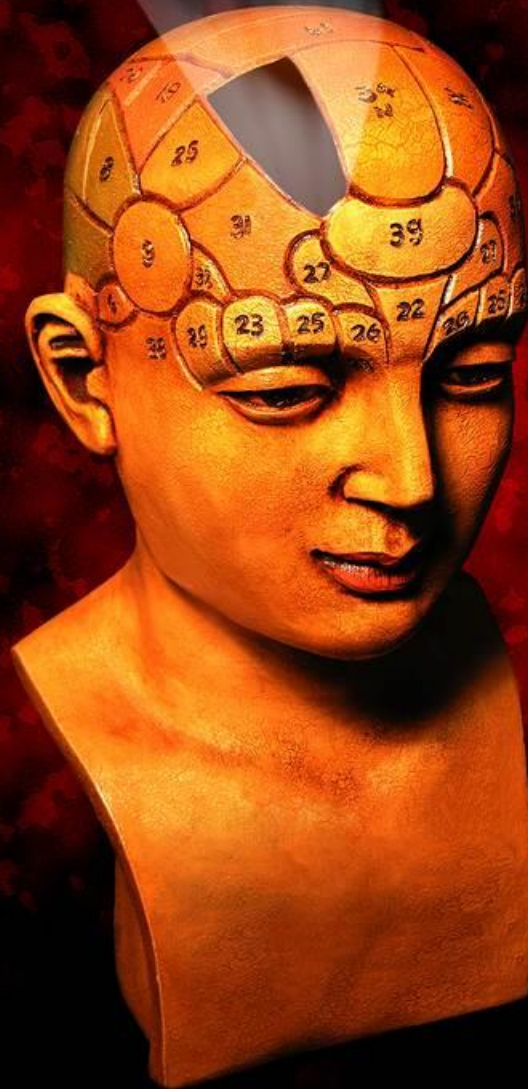
Mobile Facebook Podcasts Twitter Alerts Newsletter



BEING Erica
RELIVE THE JOURNEY
Full Episodes Available Online
CBC

infrastructure
+
behavior

influencing behavior



here is how not to influence behavior



eeo eeo@toronto.ca via zerofootprint.net
to Better ▾

📧 Jul 10 ☆

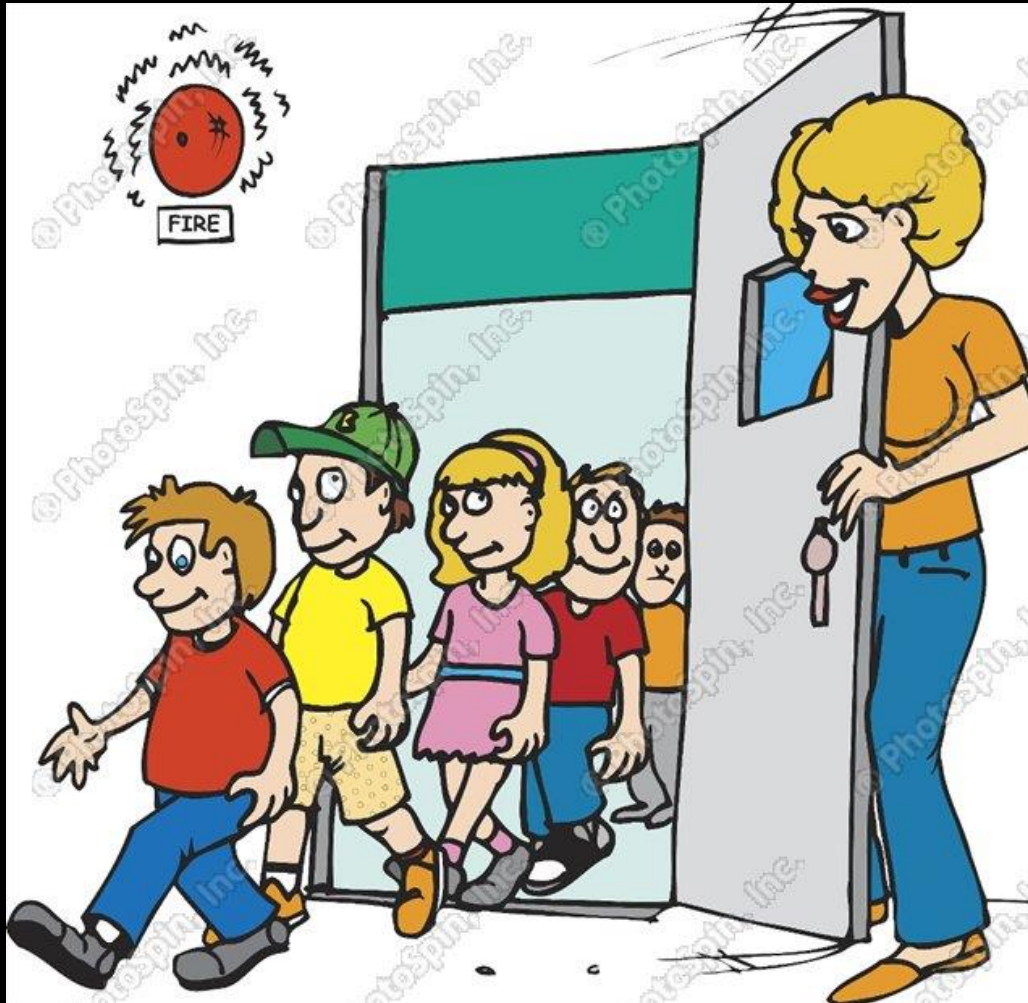
Please find attached a Thank You Note from City Manager, Joe Pennachetti and a request for further conservation efforts from Toronto Hydro.

Energy Efficiency Office
City of Toronto
55 John Street, 2nd Floor, Room 209
Toronto, ON M5V 3C6
Phone: [416-392-1110](tel:416-392-1110)
Fax: [416-392-1456](tel:416-392-1456)
E-mail: eeo@toronto.ca
Website: www.toronto.ca/energy

2 attachments — Download all attachments

-  **TH Key Account Update #4.pdf**
256K View Download
-  **Thank you note_Severe Storm and Flooding_July 10 2013.pdf**
46K View Download

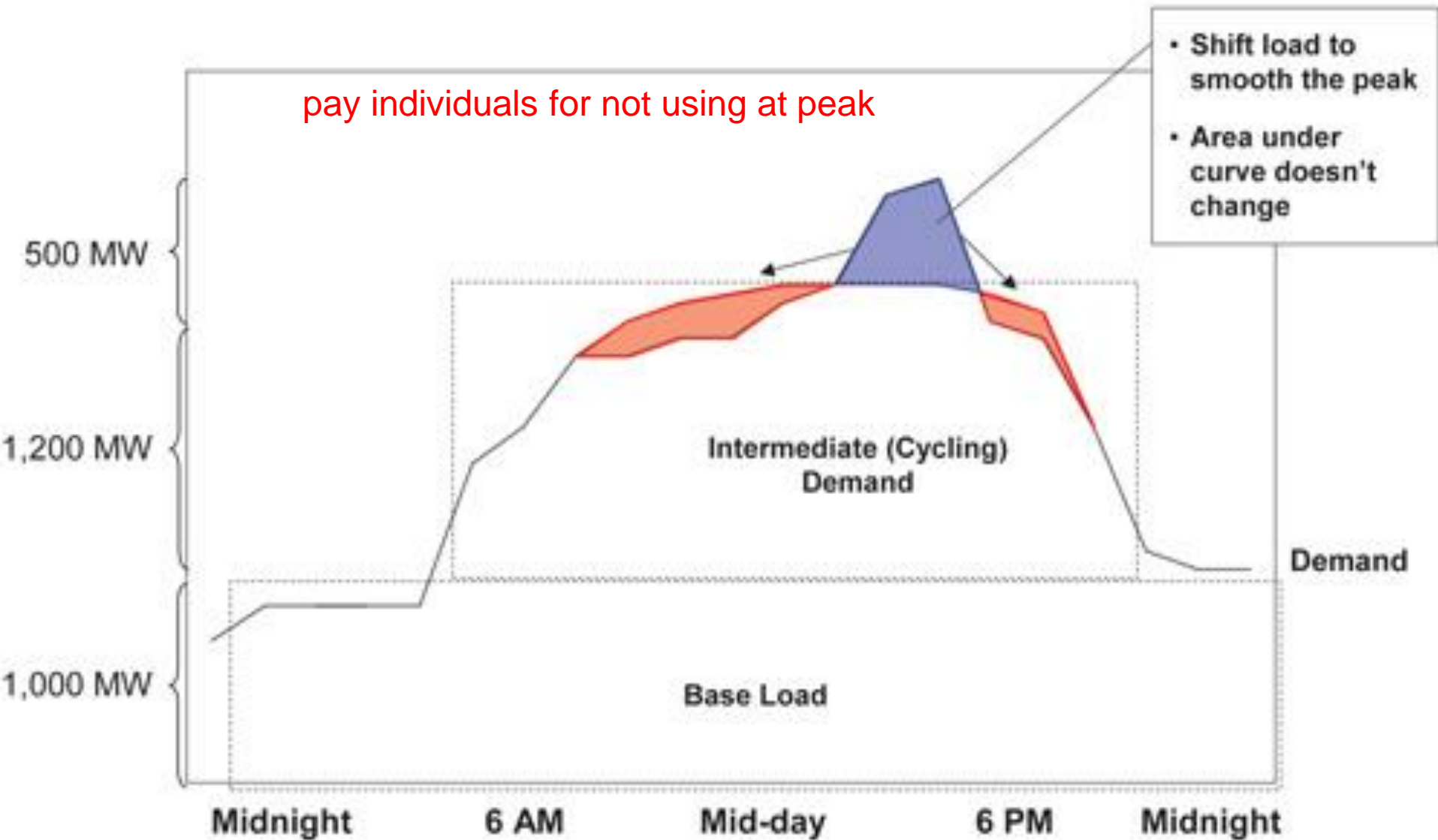
we need “fire” drills



what to do

in case of a peak load
problem

shifting peak load problem

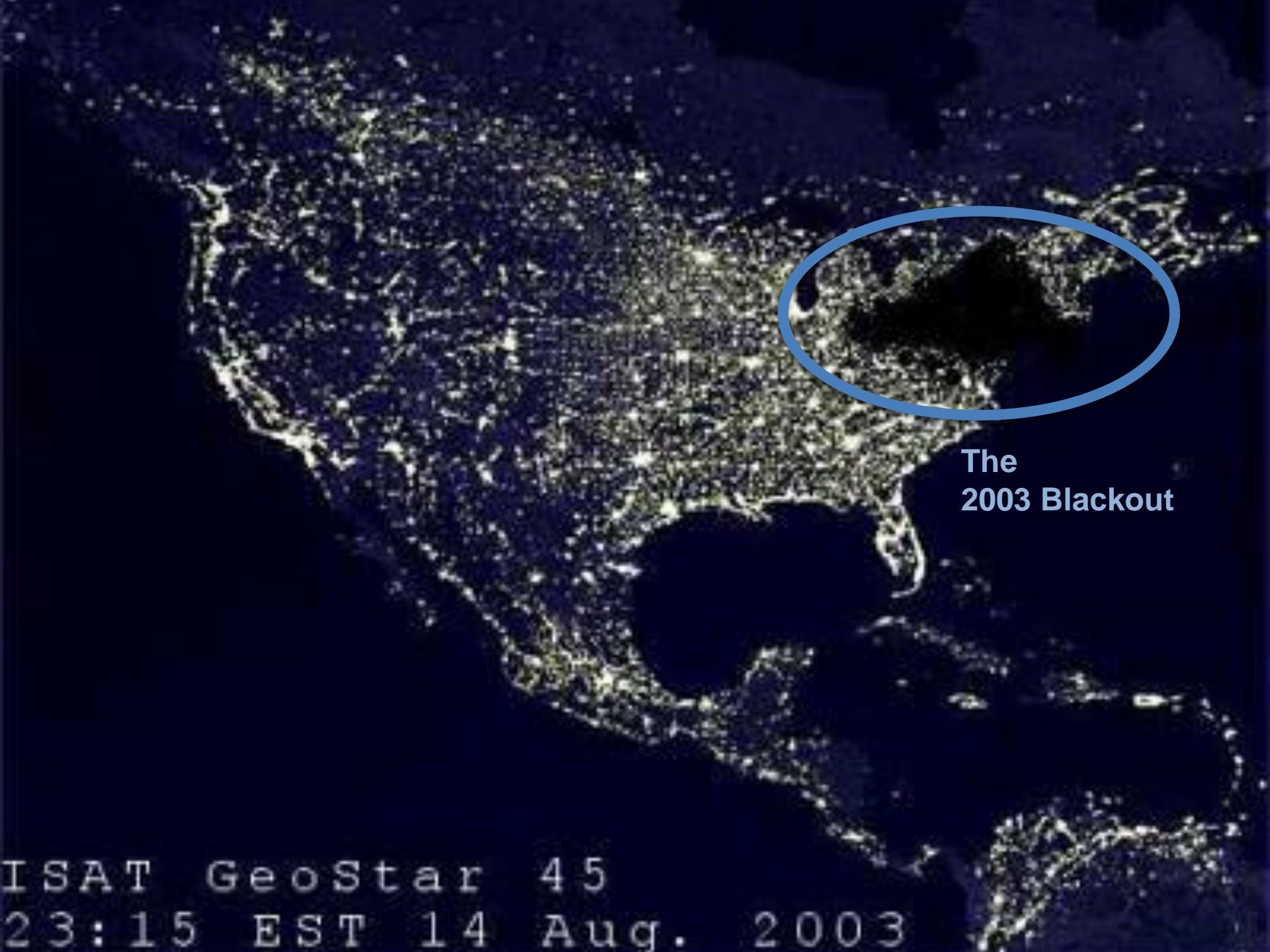


what to do
in case of a storm
surge

what to do
in case of an
electrical outage

etc.

the **social**
side of resilience



**The
2003 Blackout**

ISAT GeoStar 45
23:15 EST 14 Aug. 2003

TORONTO 2003



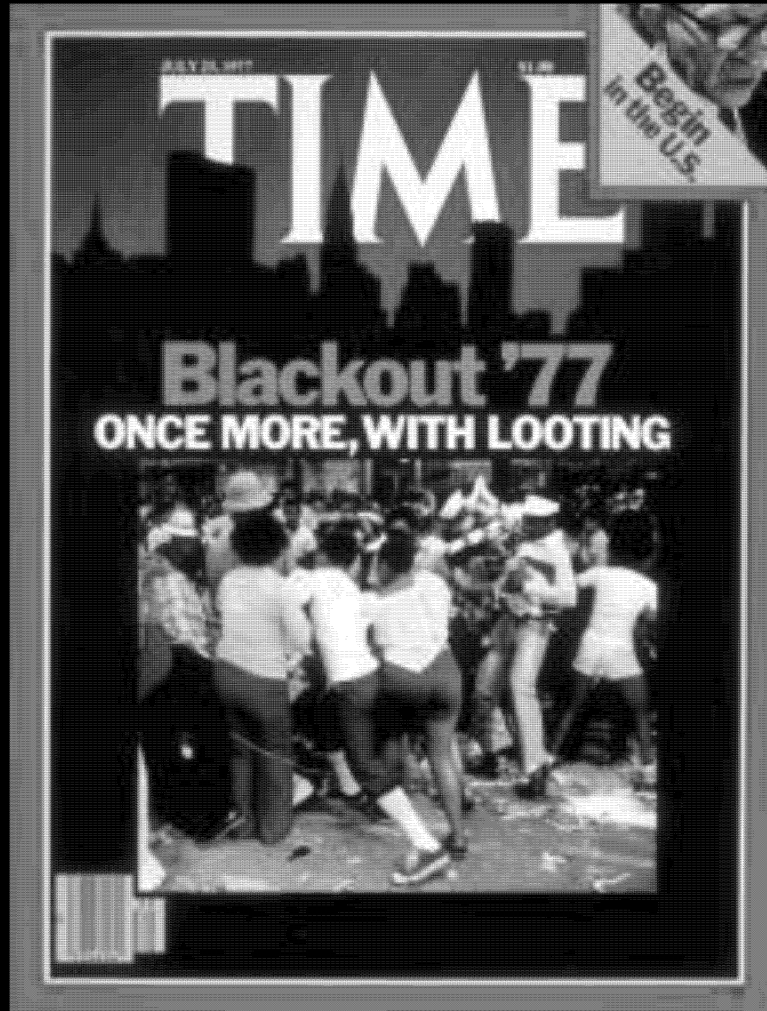


blackout party

engaged citizen



NY
1977
BLACKOUT





NY2003



people in NY
helped each other
in 2003

Flooding

Calgary 2013

VS

New Orleans 2005

NEW ORLEANS 2005



After Katrina, New Orleans Cops Were Told They Could Shoot Looters



Alex Brandon/The Times-Picayune © Zerofootprint 2013.

New Orleans Police Lt. Dwayne Scheuermann aims his gun on the Claiborne Overpass in New Orleans on



Calgary 2013

A photograph of a multi-arched concrete bridge spanning a wide river. The water is a muddy, brownish color, suggesting flooding or high water levels. In the background, a city skyline is visible under an overcast sky. Several tall buildings with distinctive architectural features, such as spires and rounded tops, are prominent. The bridge has a decorative railing and several streetlights are visible along its length.

**#CalgaryStrong.
We will rebuild together.**

2 weeks before THE Stampede



one week later



cities with an
engaged population
are **more resilient**

“It was the best of times
was the worst of times

Charles Dickens

A Tale of
Two
Cities

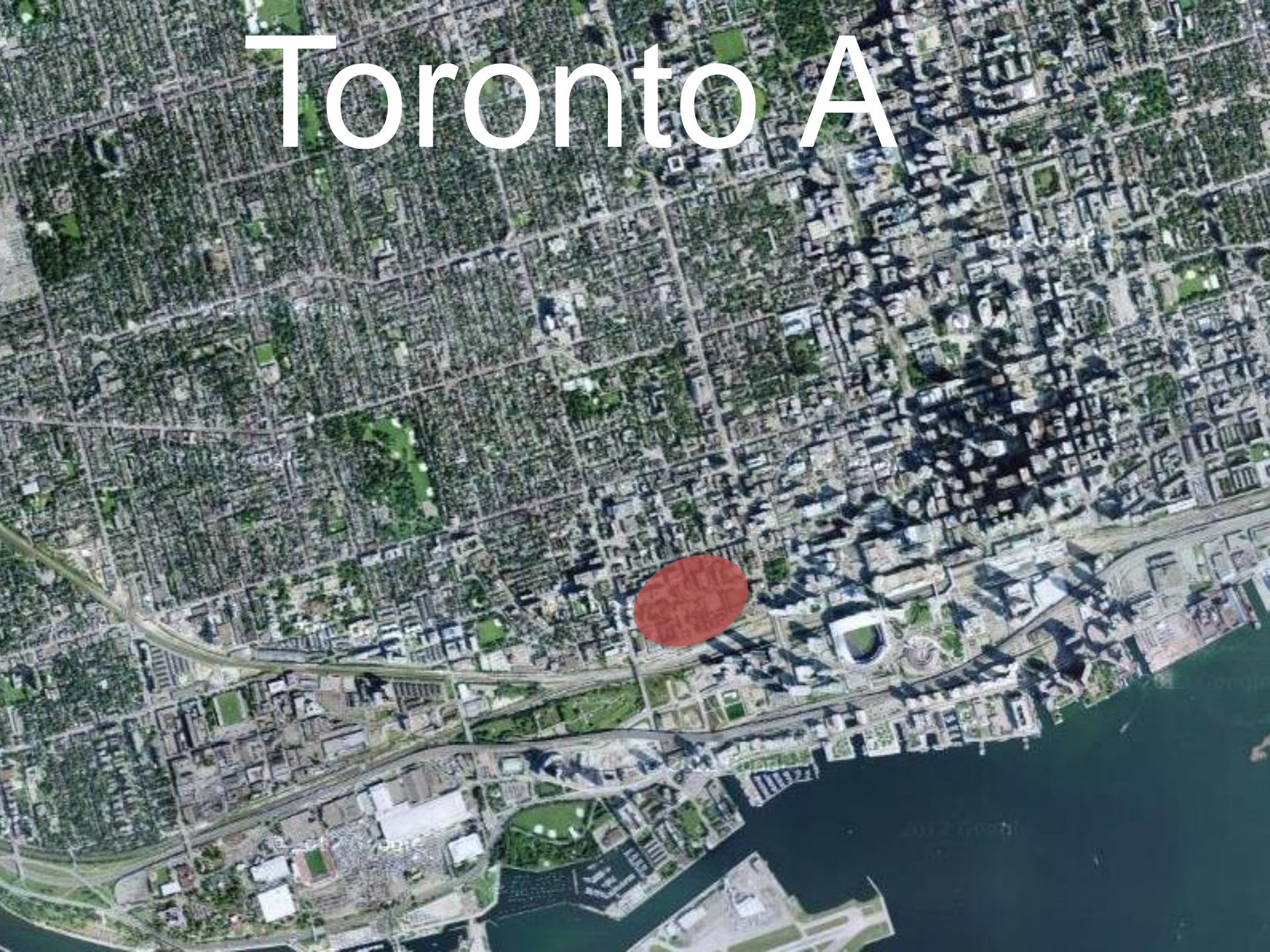
Sustainable
e

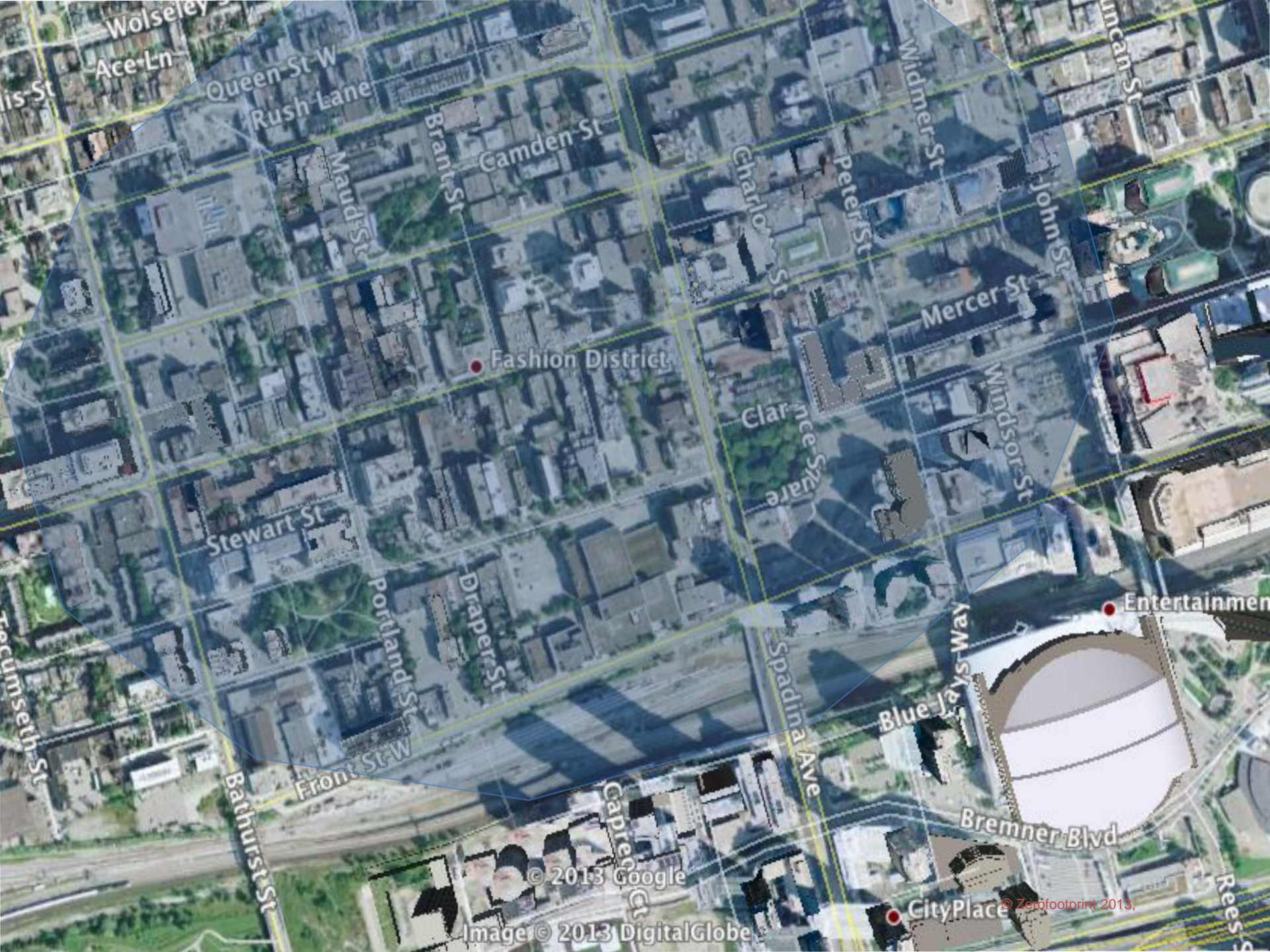
Resilient

Human

Innovative

Toronto A





Wolseley

Ace Ln

Queen St W

Rush Lane

Maud St

Brant St

Camden St

Charlton St

Peter St

Midmer St

John St

Union St

Fashion District

Mercer St

Clarke Square

Windsor St

Stewart St

Portland St

Draper St

Entertainment

McCumseh St

Spadina Ave

Blue Jays Way

Bathurst St

Front St W

Bremner Blvd

© 2013 Google

Image © 2013 DigitalGlobe

CityPlace

© Zerofootprint 2013,

Reese St





400

Zerofootprint

501

Bruce Mau Design

400

Urban Strategies





ESPRESSO BAR



Handwritten graffiti in the top left corner, possibly reading "S.M.S." or similar.



Small, illegible handwritten graffiti located in the upper right quadrant of the main piece.

Handwritten graffiti in the bottom left corner, possibly including the name "S.M.S." and other characters.

Small, illegible handwritten graffiti located near the bottom center of the main piece.

Small, illegible handwritten graffiti located in the bottom right corner of the main piece.



NOT Sustainable

NOT Resilient

Inhuman

NOT Innovative

Toronto B





anti- social



zerofootprint™

We sell engagement.

The people who use our
software make a difference!

www.zerofootprint.net