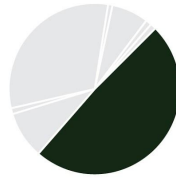


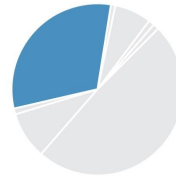


Program Proposal In Development

***Advisory Committee for the Environment -
May 5th 2021***



Vehicle Gasoline
49%



Natural Gas
Home Heating
31%



Natural Gas
Water Heating
9%



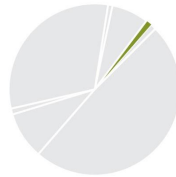
Methane From
Food & Organic
Waste in Garbage
7%



Propane BBQs etc.
1%



Electricity
Furnace & Air Conditioner
1%



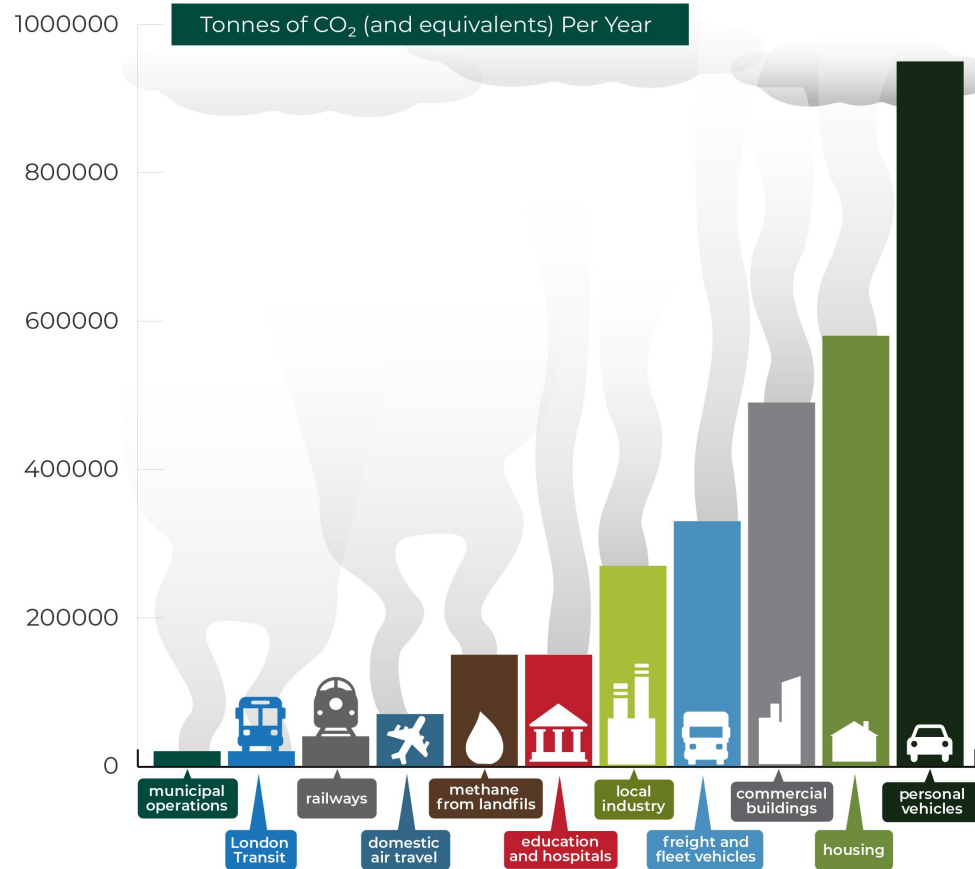
Electricity
Appliances & Electronics
1%



Electricity
Lighting
<1%

The average home in
London emits
10.5
tonnes per year.





Total greenhouse gas emissions from London have decreased compared to the “peak” in 2007. In 2019, greenhouse gas emissions were 21 percent lower than 2007.



**London needs to reduce residential emissions
by 37% by 2030. (from 1990 level)**

**Londoners need EnerGuide audits to receive the \$5,000
retrofit incentive from the federal government and
Enbridge incentives**

**Londoners need a trusted third-party that can support
their retrofit planning and celebrate their success.**



**That's where Greener Homes London
comes in**

Research and Development

Timeline



Historical Scan - Programs in London

1990

2000

2010

2020

Global Action Plan (1991-1994)
Green Horizons

One Tonne Challenge
EnerGuides
Post Carbon London
EcoEnergy Audits (2007-2013)

Transition Town (2010-2013)
Green Energy London
(2014-2017)
Active & Green Communities
H2Home
Home Checkup
Growing Naturally
Project Neutral

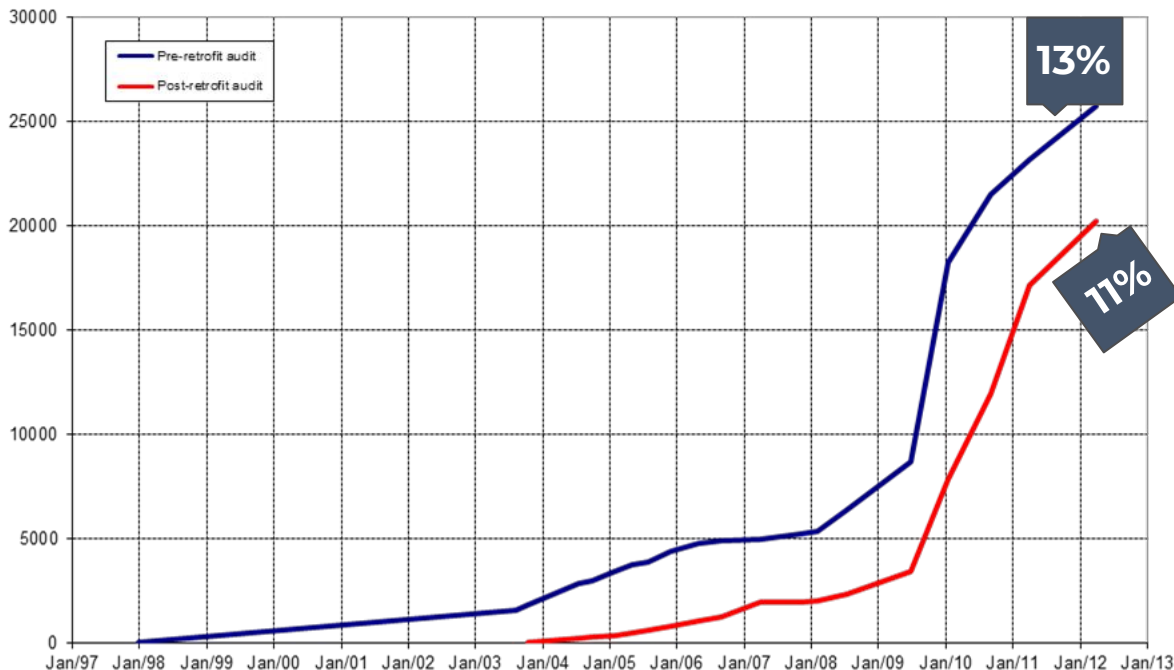


Historical Opportunities

If EA's did 10,000 homes a year, we'd audit the remainder of existing stock in 16 years*

EnerGuide/ecoEnergy for Houses in London

about 100,000 single-family homes in London as of 2006



Current pace of retrofits (completed with Energuide Audits) – averaging around 1,900 homes/year between 2017 and 2019.

1.05%

Biggest jump was in 2010 with Harper-era tax write offs. 8,000 homes retrofitted in one year!

Need a program that can run with or without incentives



Environmental Scan

| Organization | Avg # of homes in non-incentive times | Tips |
|----------------------------|---------------------------------------|---|
| GreenUP Peterborough | 40/ year (@ \$600) | Neighbourhood plans are higher impact, but cost \$250,000 per neighbourhood |
| REEP Solutions KW | 100-200/ year (@ \$600) | Work with city to offer water conservation programming |
| Green Venture Hamilton | 150/ year (@ \$550) | Streamline customer service elements |
| EcoSuperior Thunder Bay | 200-300/ year | Use online booking and payment software |



**Incentives =
Audits**

**Change in
government =
shifting
priorities**

**Combine
audits
together**

**Audits ≠
Deep Retrofits**

**Core
funding =
longevity**

**Hard to support
low-income or
tenant in these
types of programs
effectively**

General Learnings





**Options for
Low
Income
Housing**

**Financing
Options**

**Buy In
from
Realtors /
Renovators**

★
**Education
for Residents
&
Stakeholders**

**Meaningful
Incentives**

★
**Trained
Workforce**

Necessary Elements for Successful Retrofit Programs

★
**Coaching &
Support for
Residents**

**Financing
Options**

Program Design

Program Offerings

Technical & Education Services

Audits
(EnerGuide +
Greener
Homes)

Reports
(Energuide +
Greener
Homes)

Community Engagement & Coaching Services

Webinars,
Workshops,
Events, Forum

Coaching &
Email
Check Ups

Social Media,
Website,
Newsletter
Information

Technical Support & Education Elements

EnerGuide Audit

(energy efficiency)



Transportation
(walk, bike, bus, EV.
Info on EV
incentives.)



Biodiversity
(landscaping,
incorporate native
& edible plants)



Waste
(recycling &
composting habits.
Info on composters)



Water
(low flow toilets,
aerators, rain
barrels)



Stormwater
(discussion on 3P,
FOGS)



**Greener
Homes Audit**



Process for Residents



Resident becomes aware of program through online or in person communications

Intake Form (online/phone) Indicates EnerGuide vs. Energuide + Greener Homes Audit

Receives Energuide +/- Greener Homes Audit + Free Kit. Receives Report + info from Advisor. Completes survey.



Resident receives 2 calls or emails a year to follow up with project support and coaching.

Resident receives other communications and invites to community engagement opportunities



Components of the Greener Homes London Audit

Energy Efficiency

Building Envelope: Air Sealing, insulation, doors and windows



Lighting, appliances, power loads



Mechanical Systems: HVAC, DHW, Ventilation



Renewable Potential for PV





Waste Reduction

45% of waste is diverted from landfill, goal of 60%

Londoners throw out \$600 a year in food

Water Conservation

Faucet aerators and low flow shower heads and the quickest and least expensive way.



Capturing and reusing grey water for toilet flushing, laundry and plants.



| |
|---|
| 5gpf/19lpf single flush |
| Uses 36,500 gallons (138,000 liters) per year* |
| 3.5gpf/13lpf single flush |
| Uses 25,550 gallons (96,700 liters) per year* |
| 2.5gpf/9.5lpf single flush |
| Uses 18,250 gallons (69,100 liters) per year* |
| 1.6gpf/6lpf single flush |
| Uses 11,680 gallons (43,900 liters) per year* |

Low flow toilets can save up to L per flush, or L per household per year.



Using rain barrels to capture and utilize water for irrigation.



Stormwater

**FOG
Cups**



**TAKE A CUP!
FILL IT UP.**

**Only the
3P's
down the
drain**



**Permeable
Pavement**



RIVER STEWARDSHIP
AND OUR
DIRECT CONNECTION
TO THE THAMES



**Using rain
barrels to
capture and
utilize water
for irrigation.**





Biodiversity & Green Infrastructure

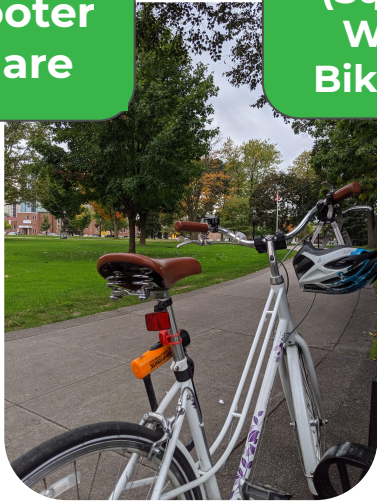
London has about 24% urban tree canopy, with 30-40% being healthy tree canopy coverage

SWONT has very few wetlands & urban green infrastructure - which contributes to flooding and combined sewer overflows

Private property has huge green infrastructure and biodiversity potential

Transportation

**Bike and
Scooter
Share**



**Cycling Info
(Squeaky
Wheel,
Bike Map)**

**Taking the
bus**



**55+ Public
Access EV
Charging
Stations**



**80-90% of
charging
is done at
home**

**324 EV's
registered
in London**

**4,032 PHEV,
EV and
hybrids in
London**



Free Items in a Greener Homes Kit



- FOG Cups
- Flyers on other programs (Enbridge, City of London basement flooding, London Hydro)
- Toilet running strips
- Rain gauge
- Seeds



Paid Add-Ons (revenue generation)



- Composter (inside and outside)
- Rain Barrel
- Weatherstripping
- Trees
- Native Plants
- LED light bulbs
- Clothesline
- Low flow aerators



Reporting

**Energy Audit Report +
Greener Homes London
Sustainability Guide**

EnerGuide Report

Available for purchase (incentivised)

Full energy efficiency report as directed by NRCan



Greener Homes London

Additional guidebook and resources available for download as a PDF and attached to any energy audit.

Include resources inspired by Better Homes TO and City of London (Growing Naturally, etc.)



Community Engagement

Communications & Promotion

- Community Meetings
- Posted Flyers
- Personal Recruitment & Word-of-Mouth
- Door-to-Door Promotion – summer student
- Outreach Booth – summer student
- Newsletter - LEN and GEL
- Website
- Social Media
- Storytelling - Stories of Success



Events & Outreach

- Annual Greener Homes Tour in partnership with various groups
- Carbon Conversations (funding dependent - and small cohorts)
- Webinars like Better T.O.
- Project Neutral Sessions
- Outreach Booths:
 - London Home Show
 - Go Wild Grow Wild Green Expo
 - Home and Garden Show



Coaching Calls and Emails

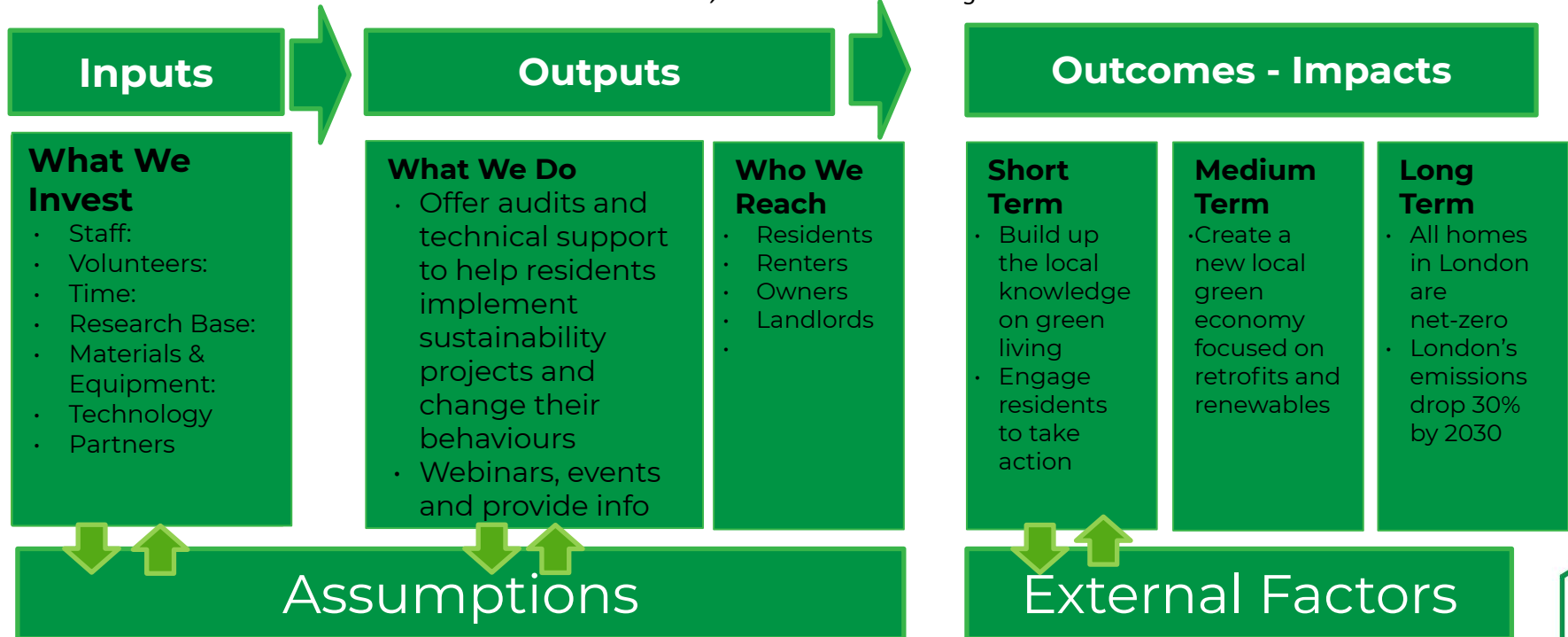
- Will add audit emails to NationBuilder and send 2-3 emails a year to follow up and offer support in choosing sustainability projects to complete
- Will call 1-2 times a year (likely in summer with summer students) to offer coaching support



Intended Impacts

Theory of Change / Logic Model

If we educate, inspire and incentivize residents to improve their household environmental footprint, residents will reduce their emissions, waste and water usage.



Community Engagement Targets

Changing hearts
& minds & culture

| Area | Target |
|--|-------------|
| Project Neutral assessments completed | 2,000 |
| # of action cards selected | 500 |
| Residents engaged with (events, audits, online) | 50,000 |
| # of webinars or workshops a year | 10 |
| Webinar or workshop attendees (with funding) | 3,000 |
| Website visits to Greener Homes London pages (currently LEN's website gets about 25,000 a year) | 30,000/year |



Technical Program Targets

Improving
infrastructure &
making reductions

| Area | Target |
|---|-------------------------|
| Homes audited in a week (no core funding) | 1-2 (52-104 a year) |
| Homes audited in a week (with core funding) | 5-25 (260-1,300 a year) |
| Energy Advisors trained | 3-5 |
| Free Greener Homes Kits distributed (can give out at events) | 500 |
| Greener Homes Reports Distributed | 500 |
| EnerGuide Audits completed | 300 |
| Revenue generated from add-ons | \$5,000 |



Environmental Targets

| Area | Percentage | Total |
|-----------------------|---|---------------------------|
| Emissions reduced | 25% per house, to align with a rate of 5% per year (10.5 tonne average x 25% = 2.6 tonnes per household) | 650 - 3,380 tonnes |
| Water conserved | 10% per household | 46,192 - 230,960 kL |
| Waste reduced | 25% per household | 975 - 4,875 tonnes |
| Trees planted | .5 per household | 130 - 650 trees |
| Native plants planted | 3 per household | 780 - 3,900 native plants |

5 year deliverables - based on 260 - 1300 homes participating, average 3 ppl per home



Engagement Organizing

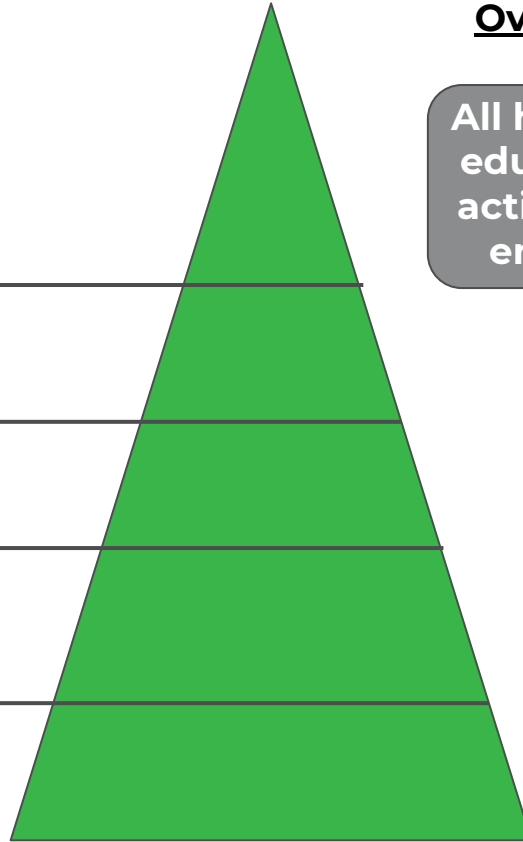
Home is net-zero, zero-waste behaviours are as environmental friendly as possible.

Shares success stories with family, friends, neighbours. Tours home

Complete sustainability projects or change behaviours

Sign up and attends webinars or workshops. Receives audit.

Sees content in newsletters, website, social media, word of mouth, communications campaigns, media



Overall Engagement Goals

All households in London are educated and engaged, and actively reducing household environmental footprints

One of Canada's greenest & most resilient cities.



Inclusive Elements

- Landlord outreach kit (summer student compiles)
- Audit tailored to renters (behavioural and minor structural projects)
- Hire BIPOC, underemployed, LGBT, women identifying staff members for the program
- Main promotional flyer translated into French, Arabic and Spanish
- Targeted communications to low-income neighbourhoods (outreach materials, partner with nonprofits like Crouch Resource Centre and South London Community Centre to offered information and setup workshops in Arabic and Spanish)
- Home Weatherization supports low income households (Enbridge)



Questions? Feedback?