



Energy Reporting Requirement: A low carbon policy priority for Toronto

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What I'll be covering

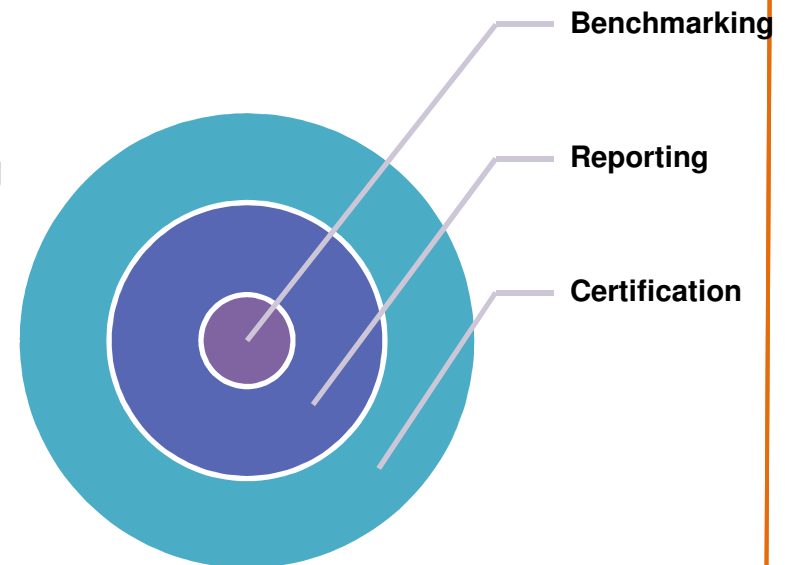
- **What is an Energy Reporting Requirement (ERR)?**
- **Why not rely on voluntary reporting?**
- **Who else has adopted ERR?**
- **Benefits of ERR:**
 - **Environmental**
 - **Economic**
 - **Social**
- **City of Toronto – Strategic benefits**
- **Why now & What's next?**

Benchmarking, Reporting & Certification

Energy Benchmarking refers to establishing a baseline for a building's energy use, which can be used to compare a building's energy performance to that of other buildings and/or of the same building across time.

Energy Reporting refers to disclosing building energy performance to a third party on an ongoing basis, usually for purposes of comparison against other buildings.

Energy and Environmental Certification programs go well beyond benchmarking and reporting, grading buildings based on a variety of sustainability indicators including energy performance. Prominent examples include LEED EBOM and BOMA BEST.





What is an Energy Reporting Requirement (ERR)?

- Requires buildings to report energy use (e.g. electricity and natural gas), and water use.
- Applies to buildings of particular:
 - **type** (e.g. commercial and multi-family), and
 - **size** (e.g. > 50,000 ft²)
- Creates a database of comparable data that can be used to benchmark building performance

Voluntary program example: Race To Reduce

Race to Reduce is an energy reduction challenge that encourages GTHA office sector landlords and tenants to publicly commit to working together to reduce energy consumption within their respective buildings, while contributing to a collective energy reduction target of 10 per cent over four years.

- **175 buildings registered**
- **600 landlords and tenants participating**
- **67 Million ft2**

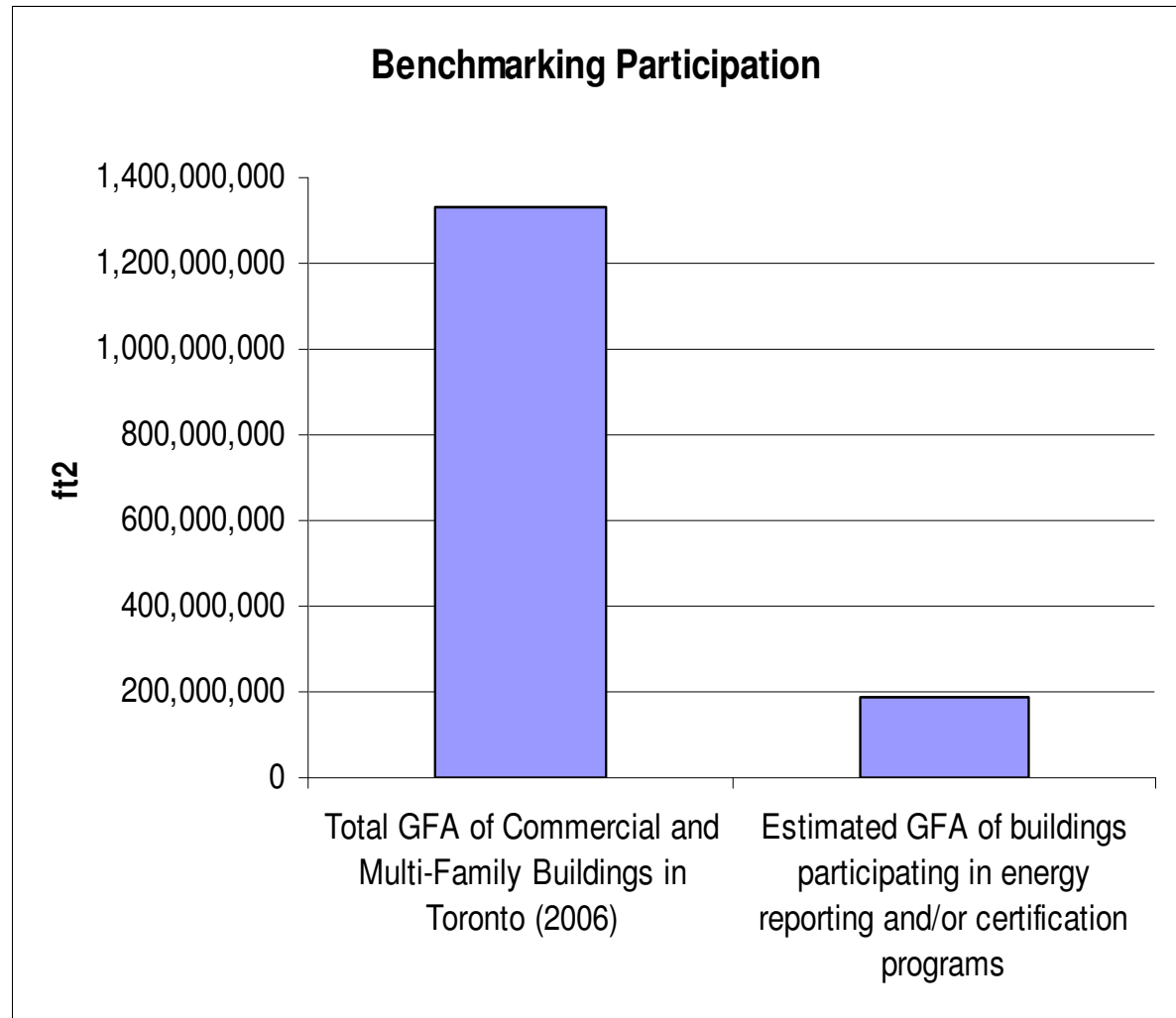


Utility	2010-2011	2011-2012	2010-2012
Electricity	4.1%	3%	7%
(ekWh)	31,000,000	108,000,000	139,000,000
Gas	-4.4%	16.6%	12.9%
(ekBTU)	105,780,000	368,594,000	474,374,000

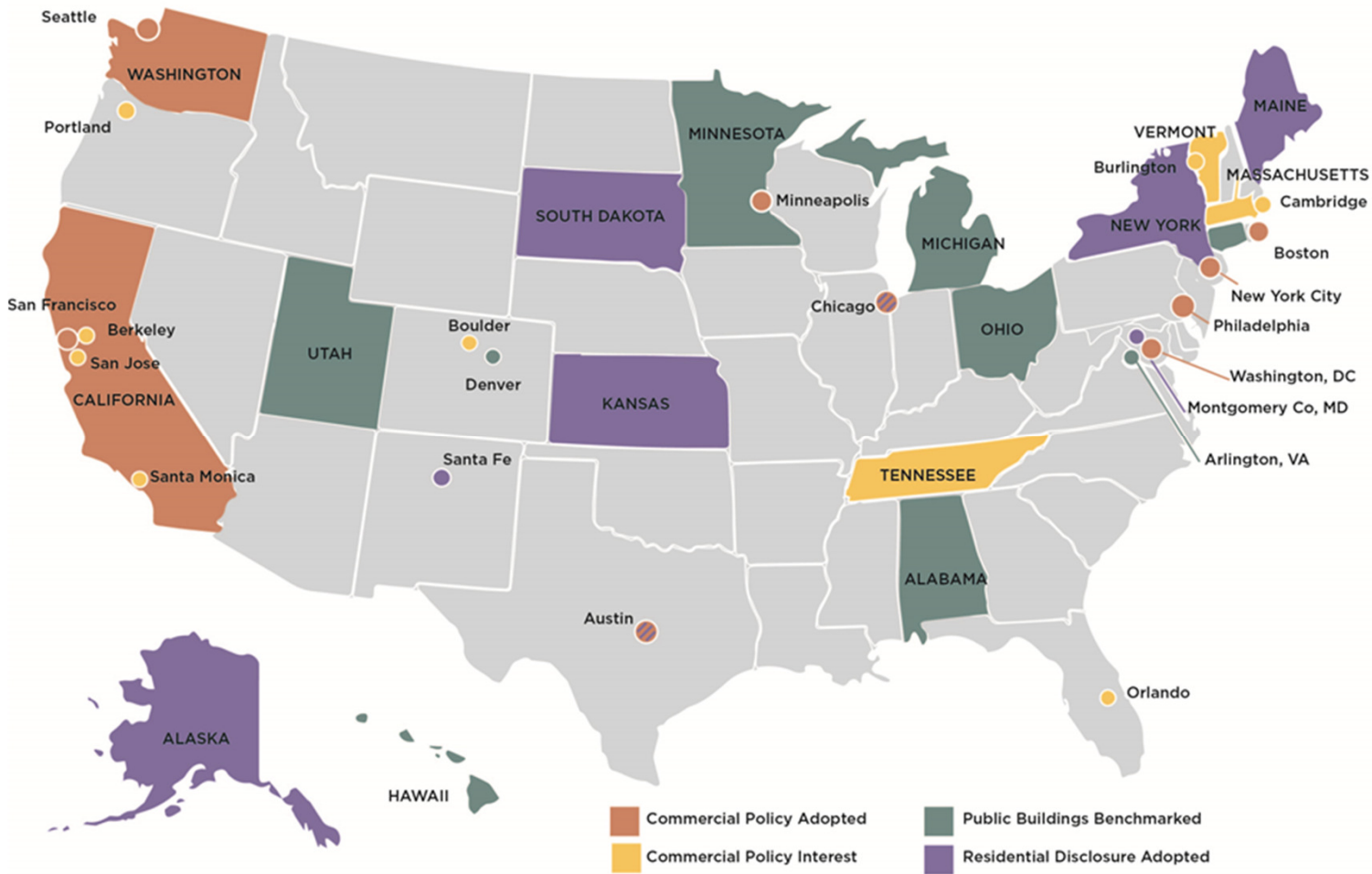
Voluntary Programs: Market Penetration

Up to 14% of Toronto's commercial and multifamily sectors are participating in voluntary energy reporting programs

Majority of participation is in office sub-sector



ERR is well-established: US

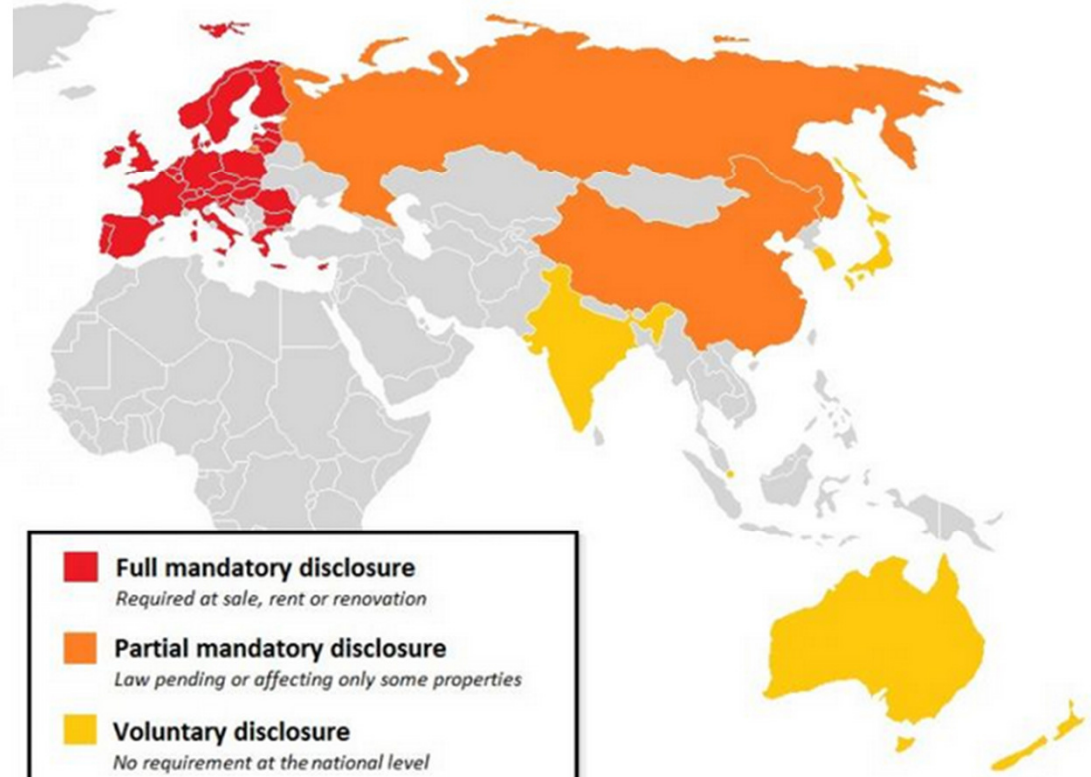
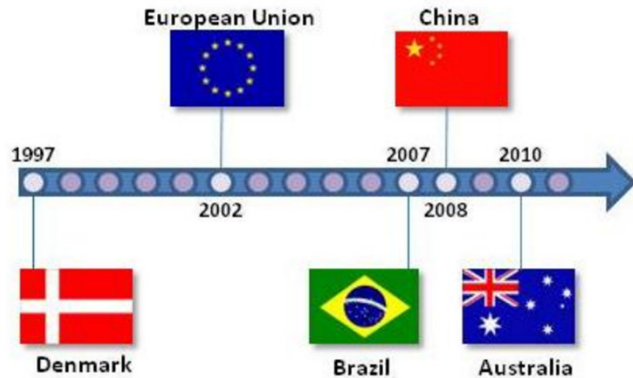


Source: Institute for Market Transformation

ERR well-established: internationally

For more information, visit
www.BuildingRating.org
or contact us at
info@buildingrating.org.

Disclosure Requirements of Energy Rating Programs for Multifamily Buildings

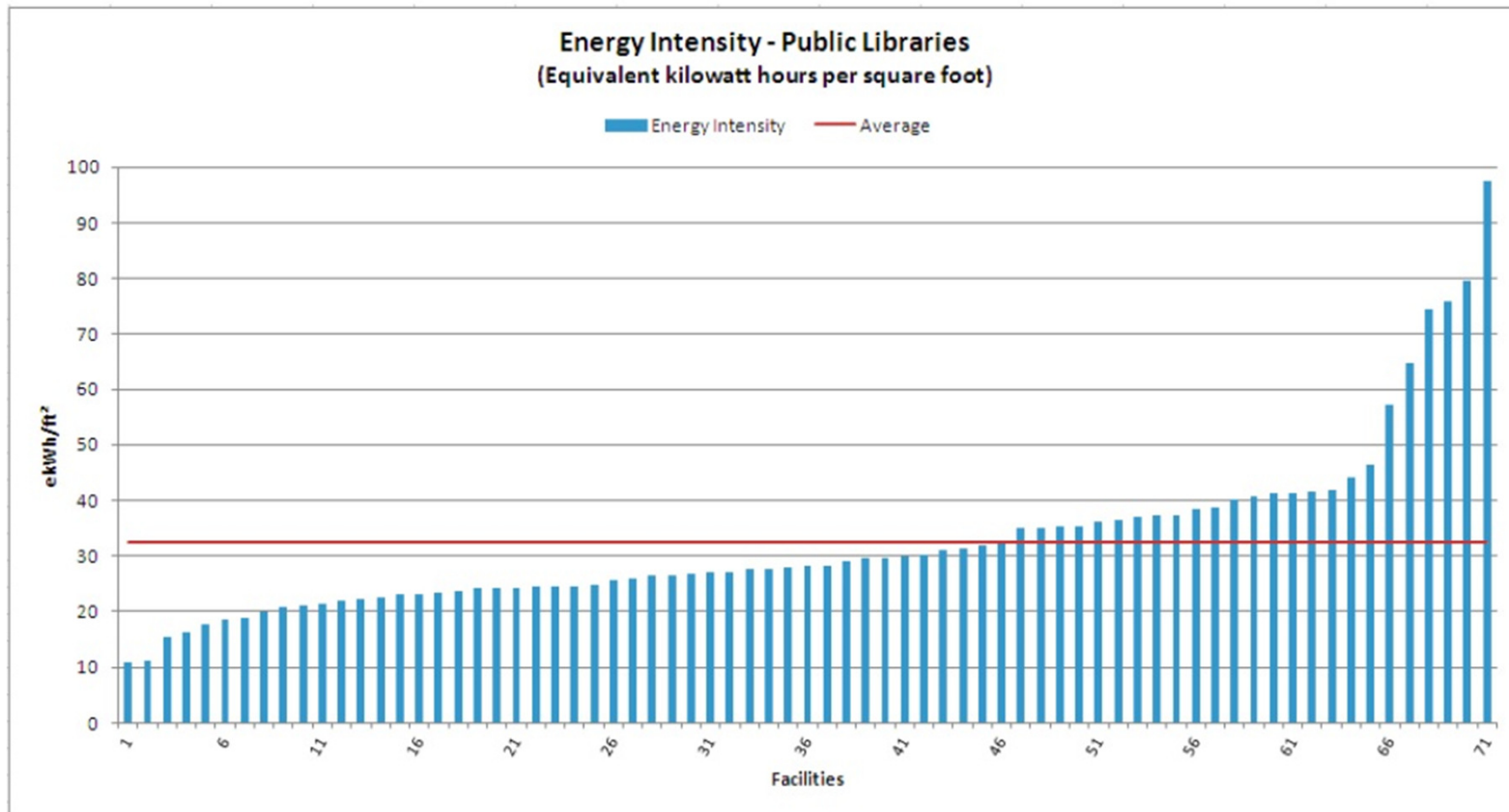


- Full mandatory disclosure**
Required at sale, rent or renovation
- Partial mandatory disclosure**
Law pending or affecting only some properties
- Voluntary disclosure**
No requirement at the national level
- No national rating program**

ERR well-established: Provincially

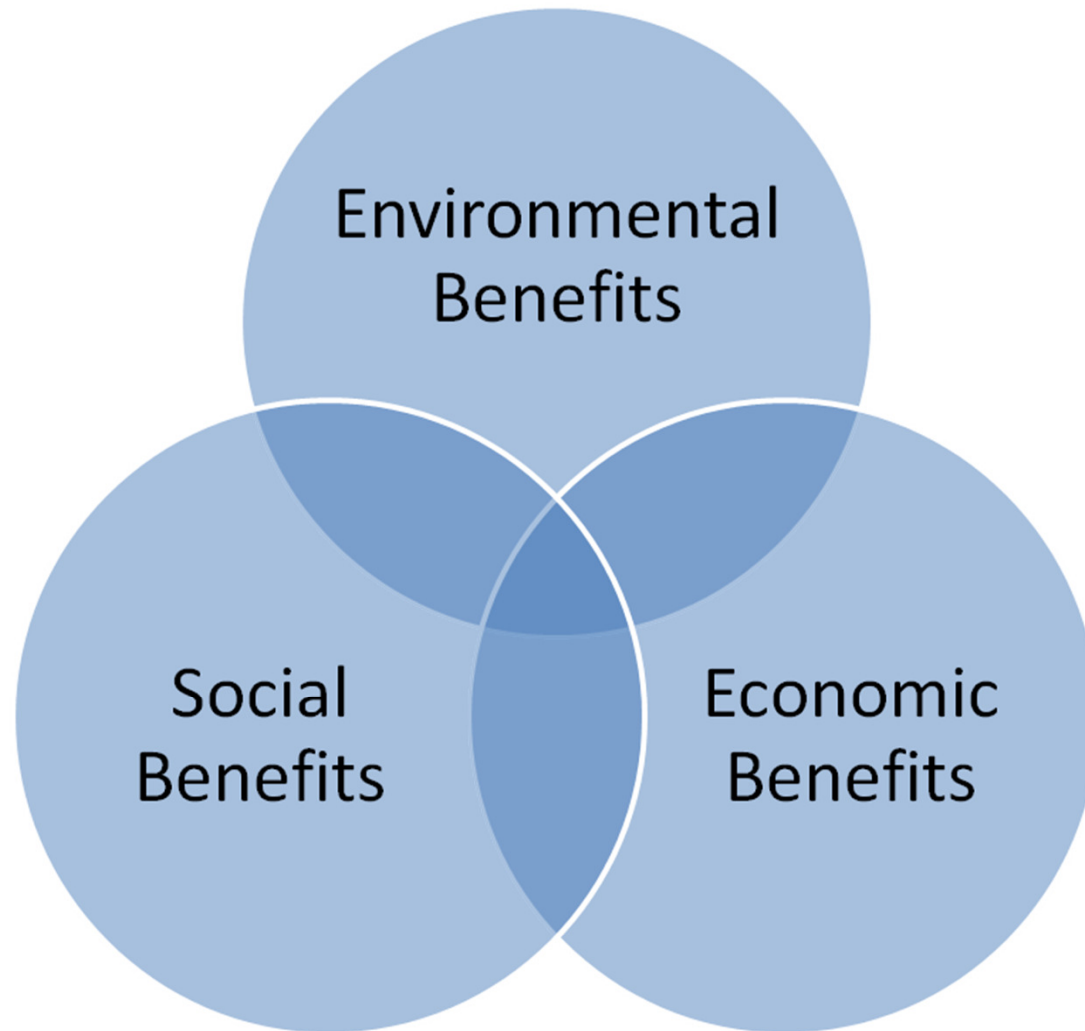
Green Energy Act included regulation requiring ERR across broader public sector

Public Libraries



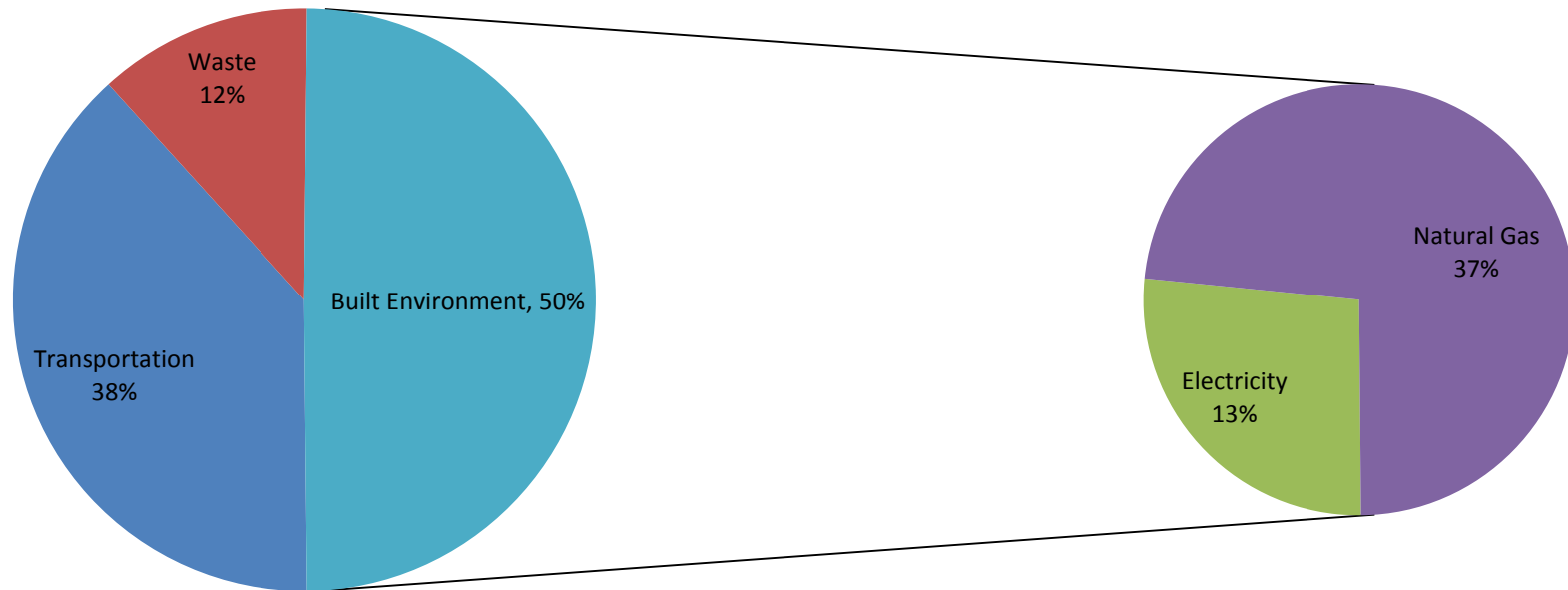


Why Adopt ERR?



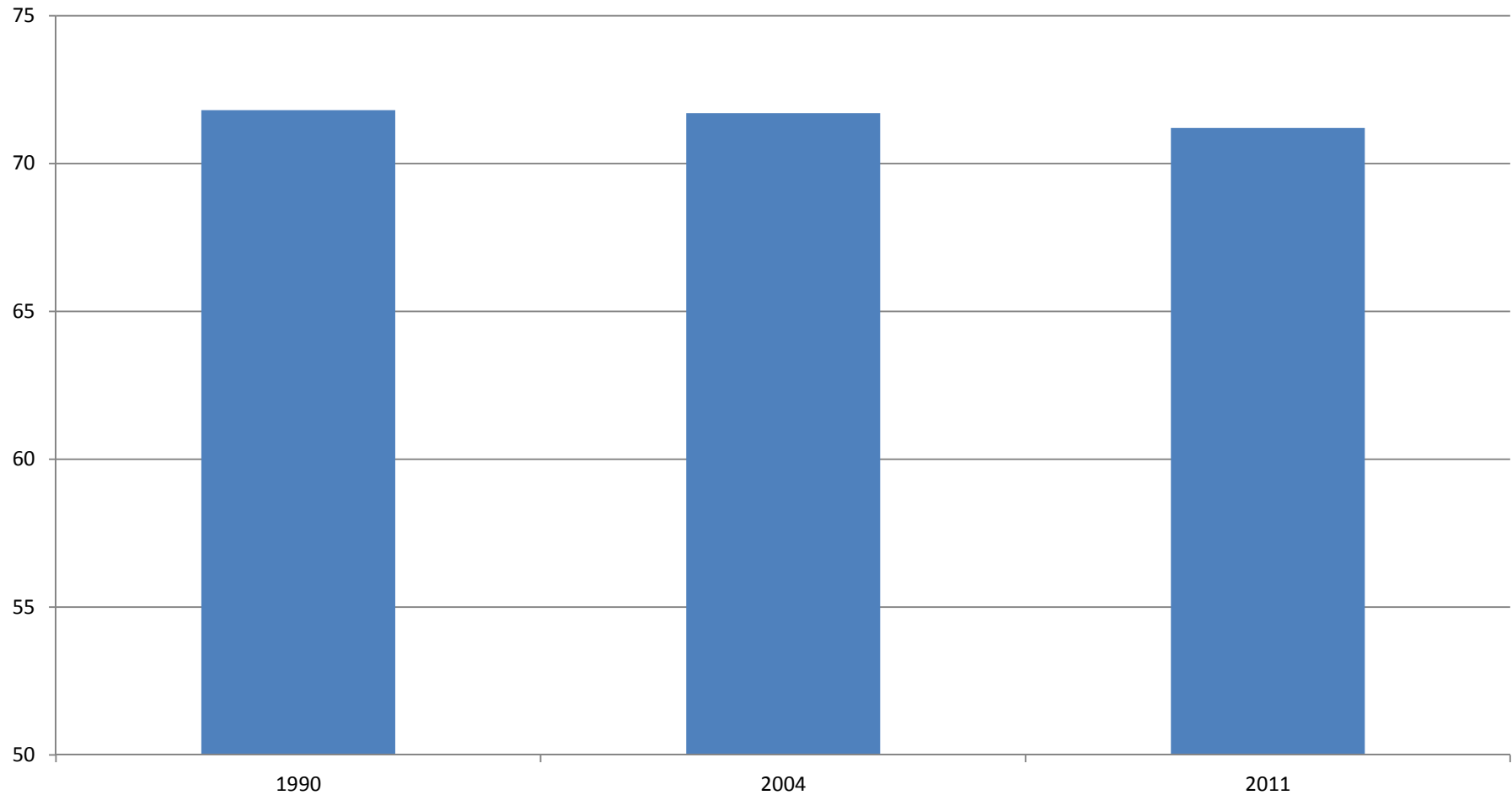
Environmental Benefits: Toronto's GHG Profile

2011 Toronto Emissions



Environmental Benefits: Energy-Use in Buildings

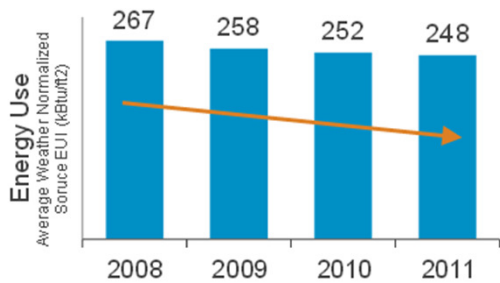
Energy-Use in Built Environment (eTWH)



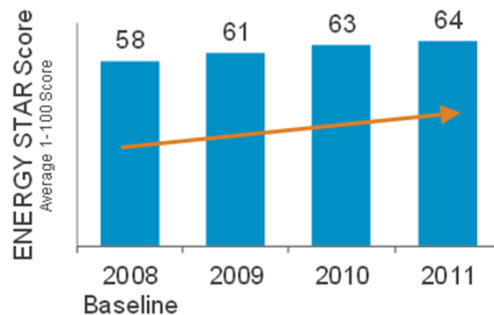
Environmental Benefits: ERR Impacts

EPA study: Buildings that consistently benchmark energy use save an average of 2.4% savings per year.

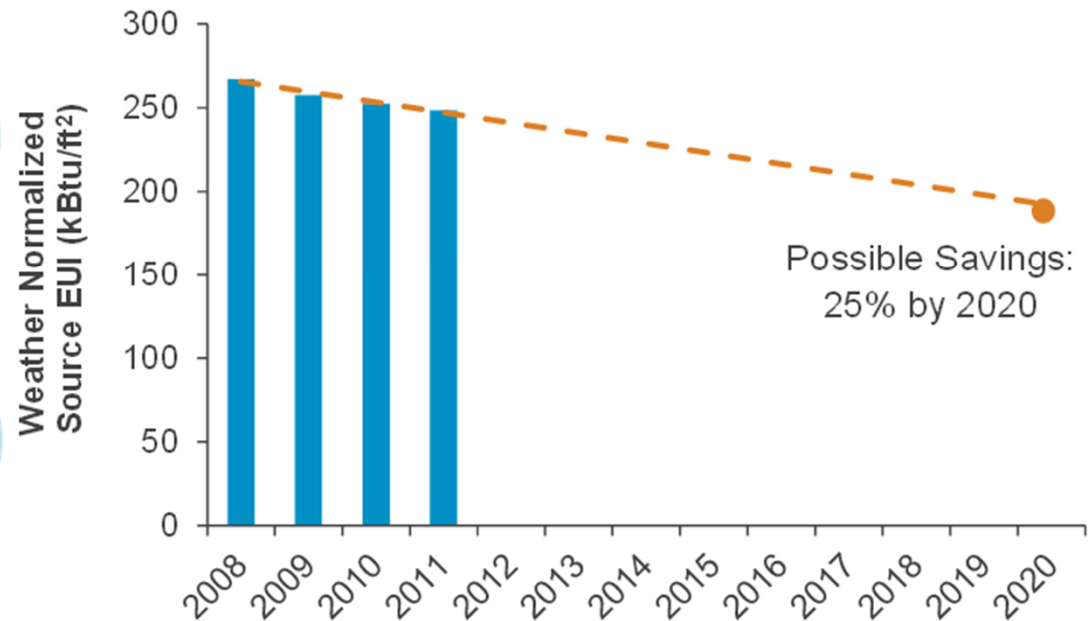
Energy Savings in Portfolio Manager



7% Savings

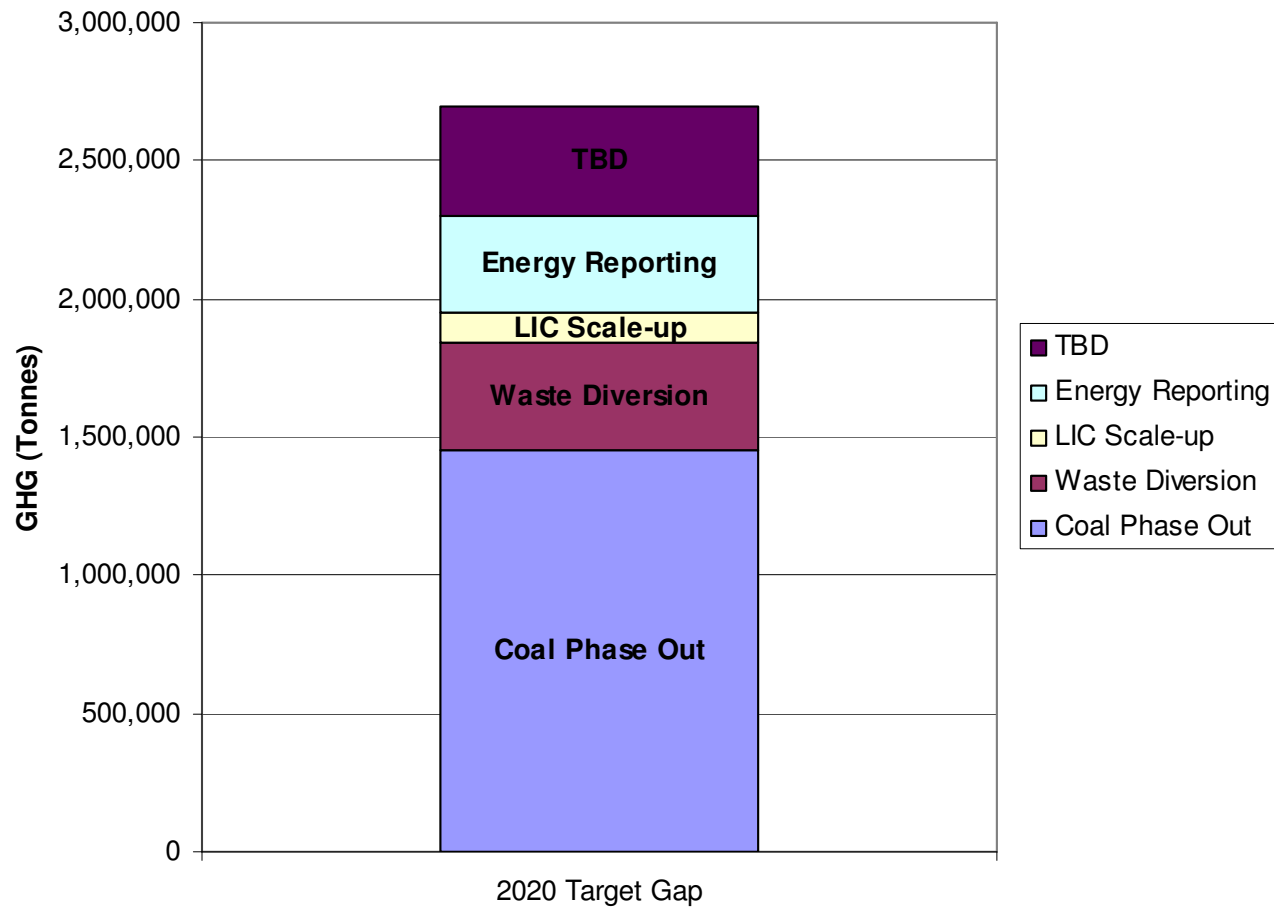


6 point increase



Environmental Benefits: Where to find 2.7 Million Tonnes?

2020 Target Gap Analysis



Economic Benefits

Energy-Use in built environment represents \$4B in annual energy drain on local economy

Direct Green Jobs

- Stimulate additional investment in energy upgrades of approximately \$300M by 2020
- Equates to ~900 person years of employment

Indirect Green Jobs

- Potential energy savings of \$100M annually by 2020
- Redirected to more employment intensive uses, supports ~700 jobs per year

International Competitiveness

- Makes Toronto a more affordable place to live and work
- Makes Toronto more attractive to employers and employees

Social Benefits

Housing Affordability

- Energy & utilities account for approximately one-third of operating expenses for condo and apartment buildings
- Improved energy performance = improved housing affordability

Consumer Protection

- Buying a condo suite is one of the largest financial commitments most people will ever make, but consumers have little if any information about energy performance.
- ERR makes information about a building's energy performance transparent, allowing would-be buyers to factor into investment decisions

Investor Protection

- Real-estate investors lack access to high quality information about the energy performance of buildings they may consider buying or leasing space in
- ERR provides investors with accurate info on building performance, protecting investors and creating stronger market pressures for efficiency



City Benefits: Filling a Policy Gap

Construction

- Toronto Green Standard

Mid-Life (30+ Yrs)

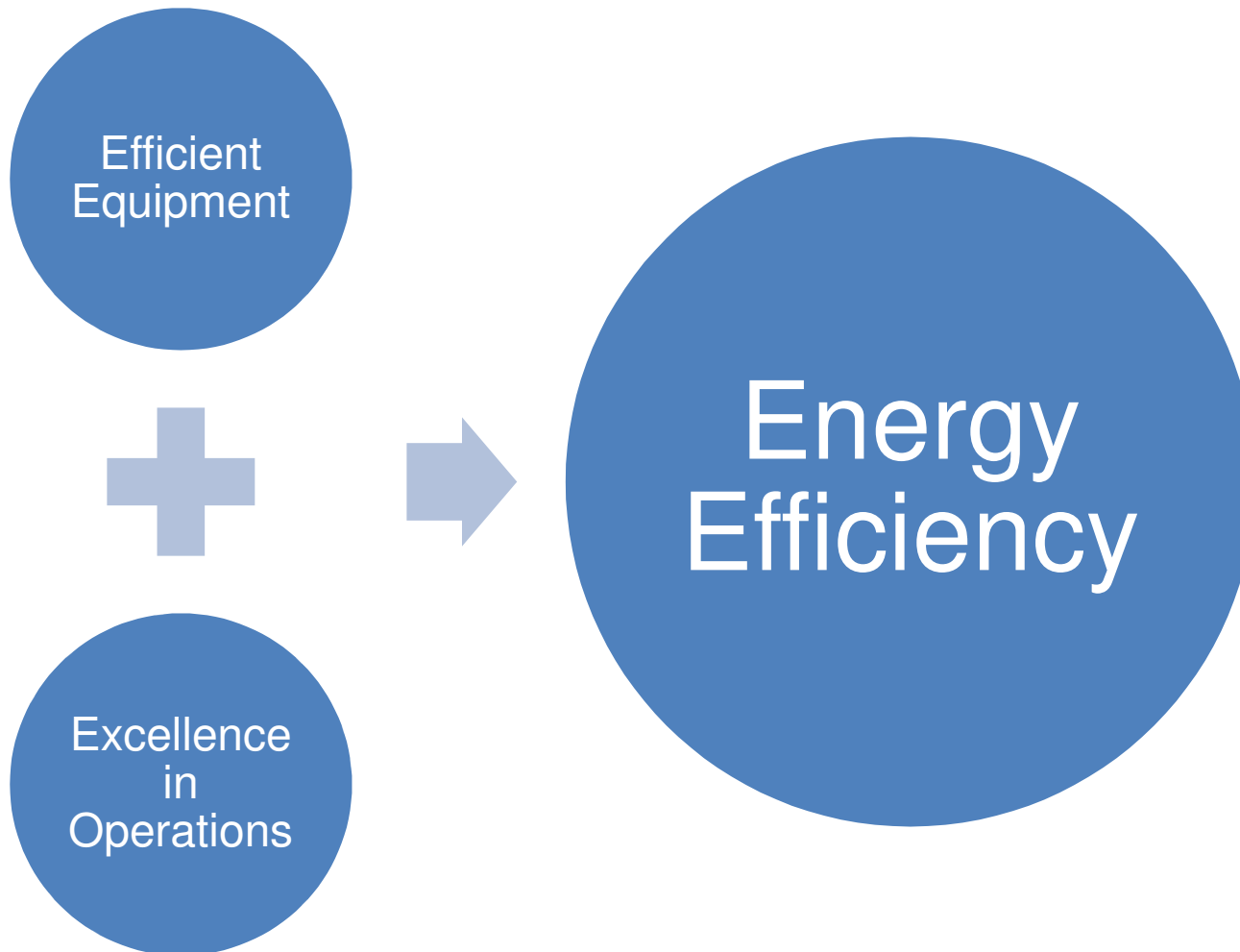
- Tower Renewal
- LIC Financing



Policy Gap

Policy Gap

City Benefits: Filling a Policy Gap



City Benefits: Planning a Sustainable City

Policy Design

- Achieving 2020 and 2050 GHG targets will require bold new policies in future
- ERR provides detailed picture of building energy performance and how it changes geographically, by sector, and over time, informing policy design

Program Targeting

- Allows programs, incentives, or financing to be targeted directly at the worst performing buildings, saving time and money and improving results

District energy & Sustainable neighbourhoods

- Achieving 2050 targets will require energy planning on neighbourhood and district scales
- Building performance database allows optimization of district energy and sustainability infrastructure at the community level, zoning and planning decisions, etc.

Why Now & What's Next?

Why Now?

- Opportunity to learn from multitude of early adopters across US
- ERR for Broader Public Sector has established precedent
- Portfolio Manager: free web-based national energy benchmarking and reporting software launched by Federal Government
- Need policy in place soon to reach 2020 targets

What's Next?

- Motion to be debated March 3 @ PEC directing staff to consult stakeholders and develop policy
- Full year of consultation and policy design to get it right
- Interim Report in August 2014, final report in March 2015