



Town of Newmarket Community Energy Plan

Committee of the Whole
Presentation
May 30th , 2016

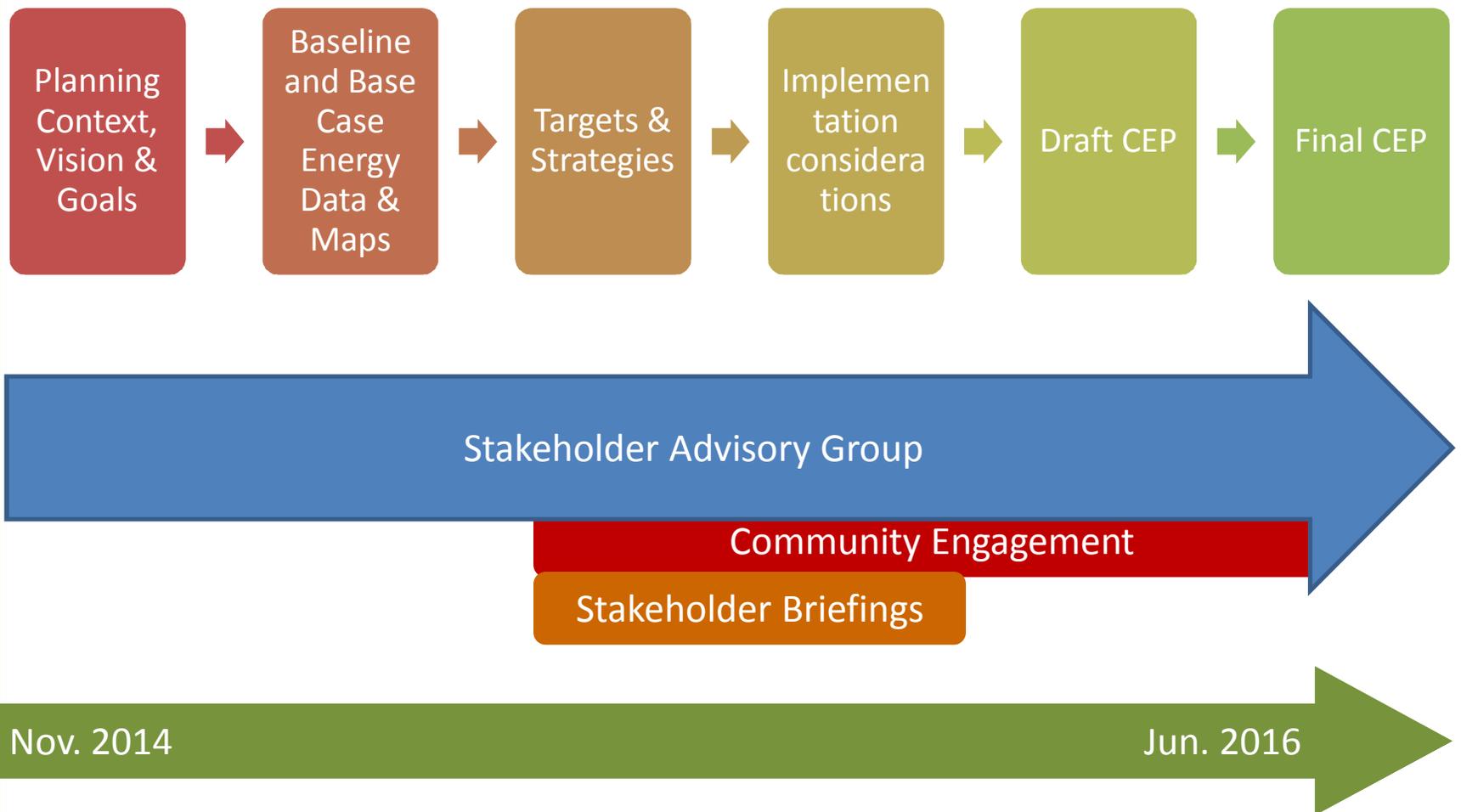
Planning & Building Services
Planning Division

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MEP Planning Process Diagram



CEP Vision

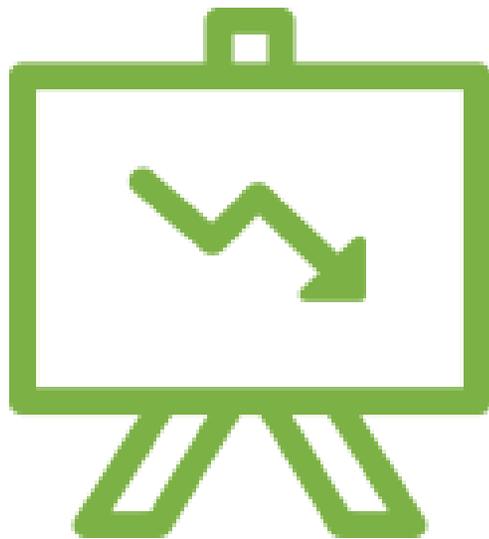


To create a sustainable community whose energy future is efficient, secure, reliable, and environmentally progressive. Our approach to managing energy will demonstrate leadership and be *well beyond the ordinary*.

Targets



To Work Towards Current Global Best Practices by 2031 by achieving:



- “ 40% per capita primary energy use reduction
- “ 40% per capita greenhouse gas emissions reduction

Draft CEP Goals

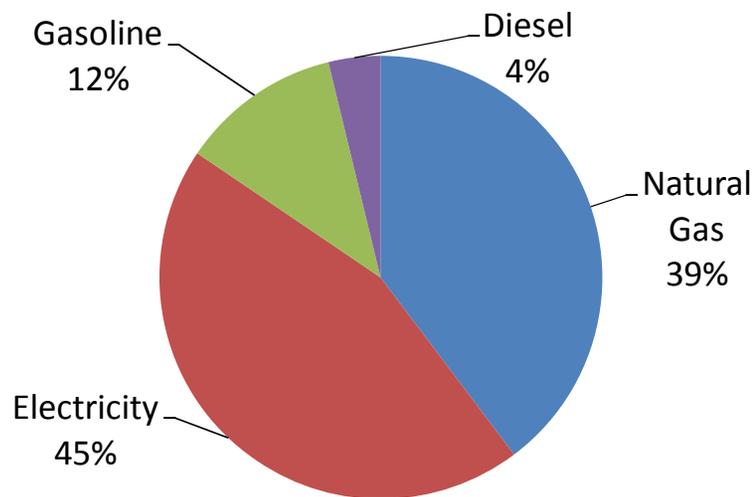


- Energy Generation & Distribution
- Economic Development:
- Behaviour Change & Education
- Energy Efficiency of Buildings
- Land Use & Growth Planning
- Transportation Efficiency

How Much Energy Does Newmarket Use?

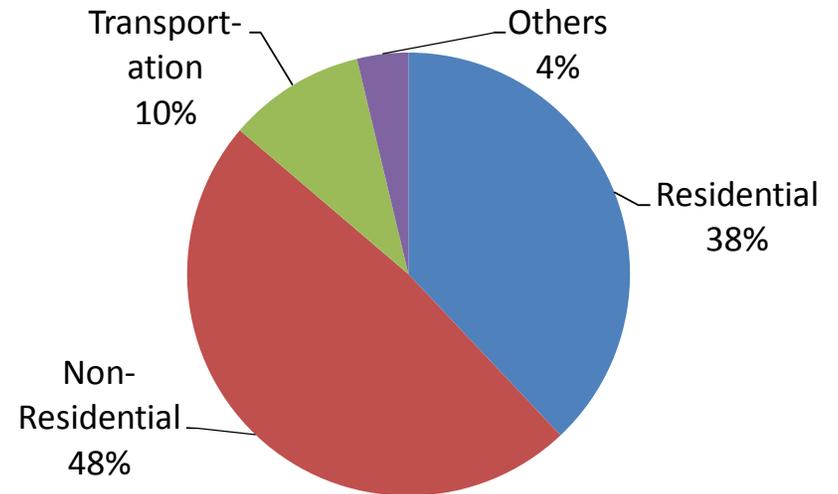


Energy Use by Source (2013)



- “ 40% loss
- “ 9.7M GJ
- “ 110 GJ / resident

Energy Use by Sector (2013)

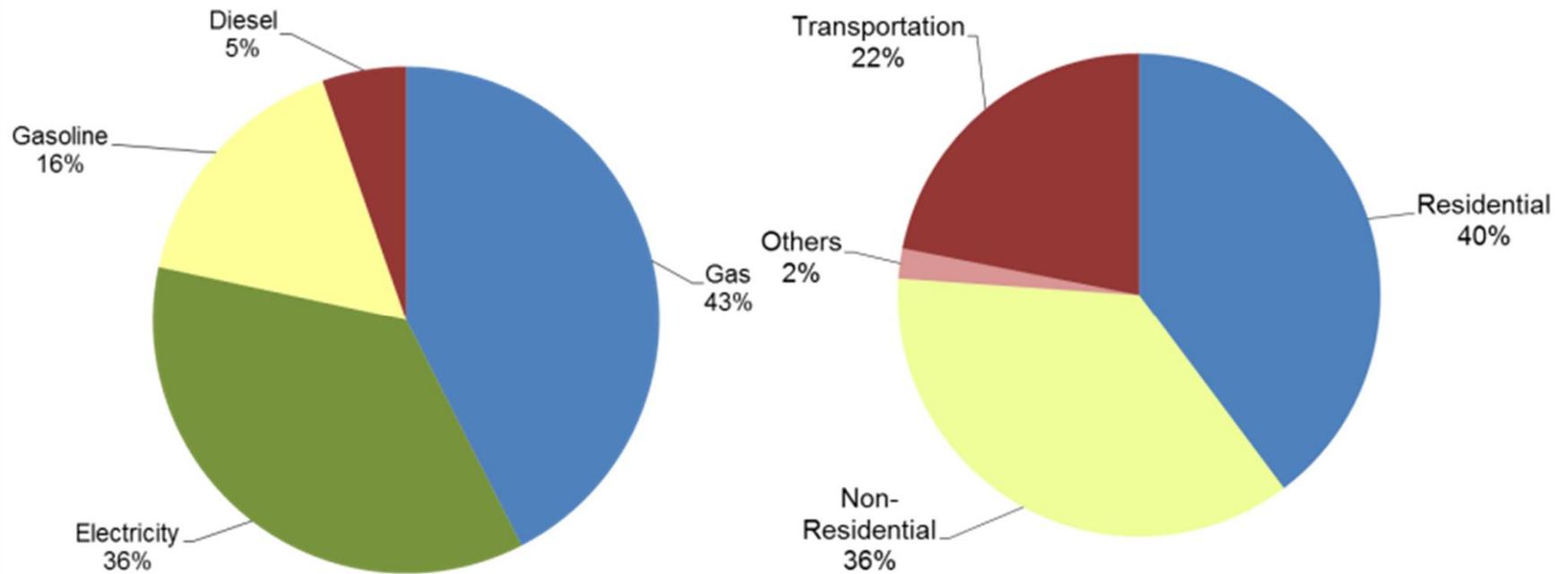


- “ \$245 million
- “ 80% leaves Newmarket

How Much GHG Does Newmarket Release? 560k mt



2013 Greenhouse Gas Emissions



By Utility

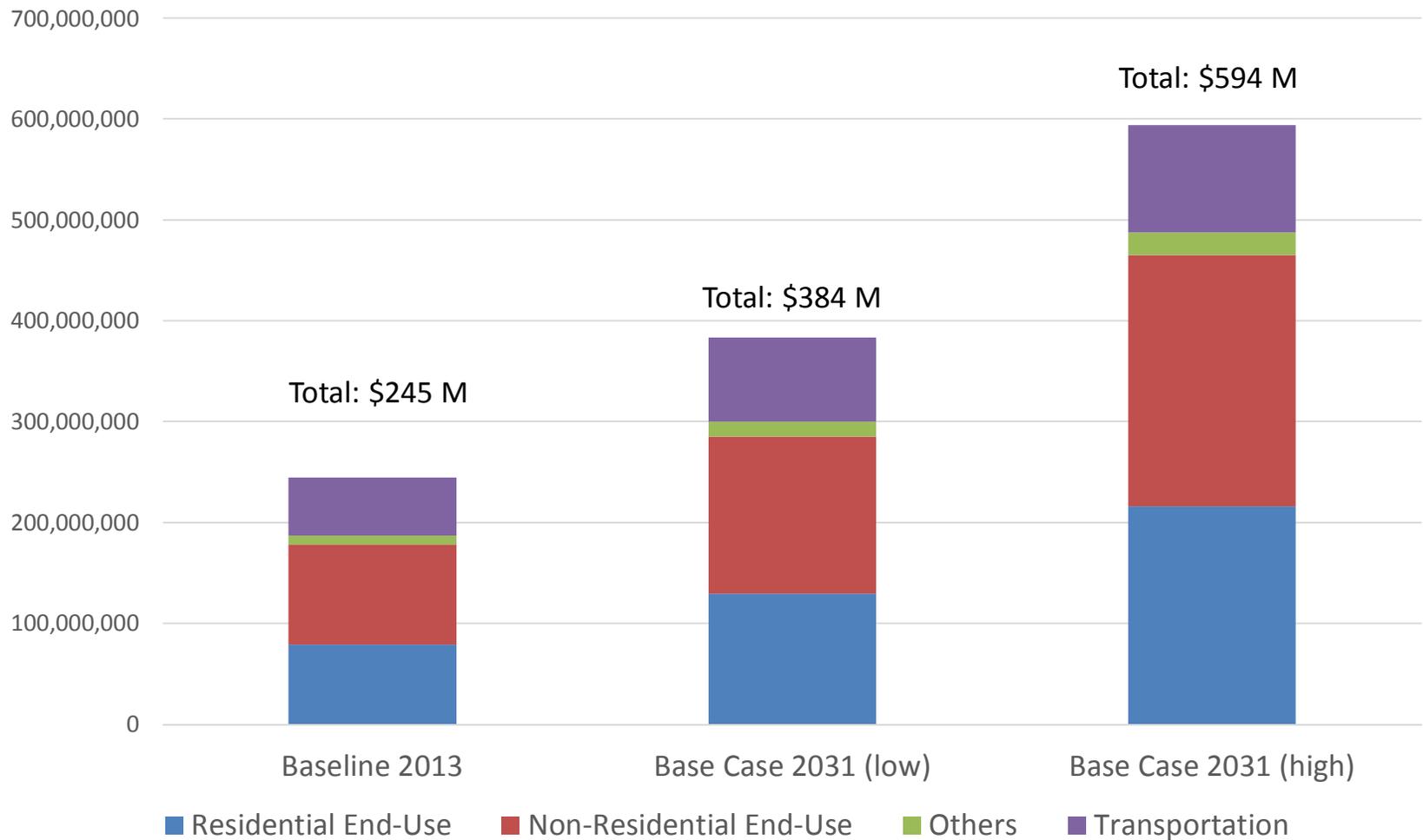
By Sector

6 tonnes CO2 for every resident

Energy Price Risks

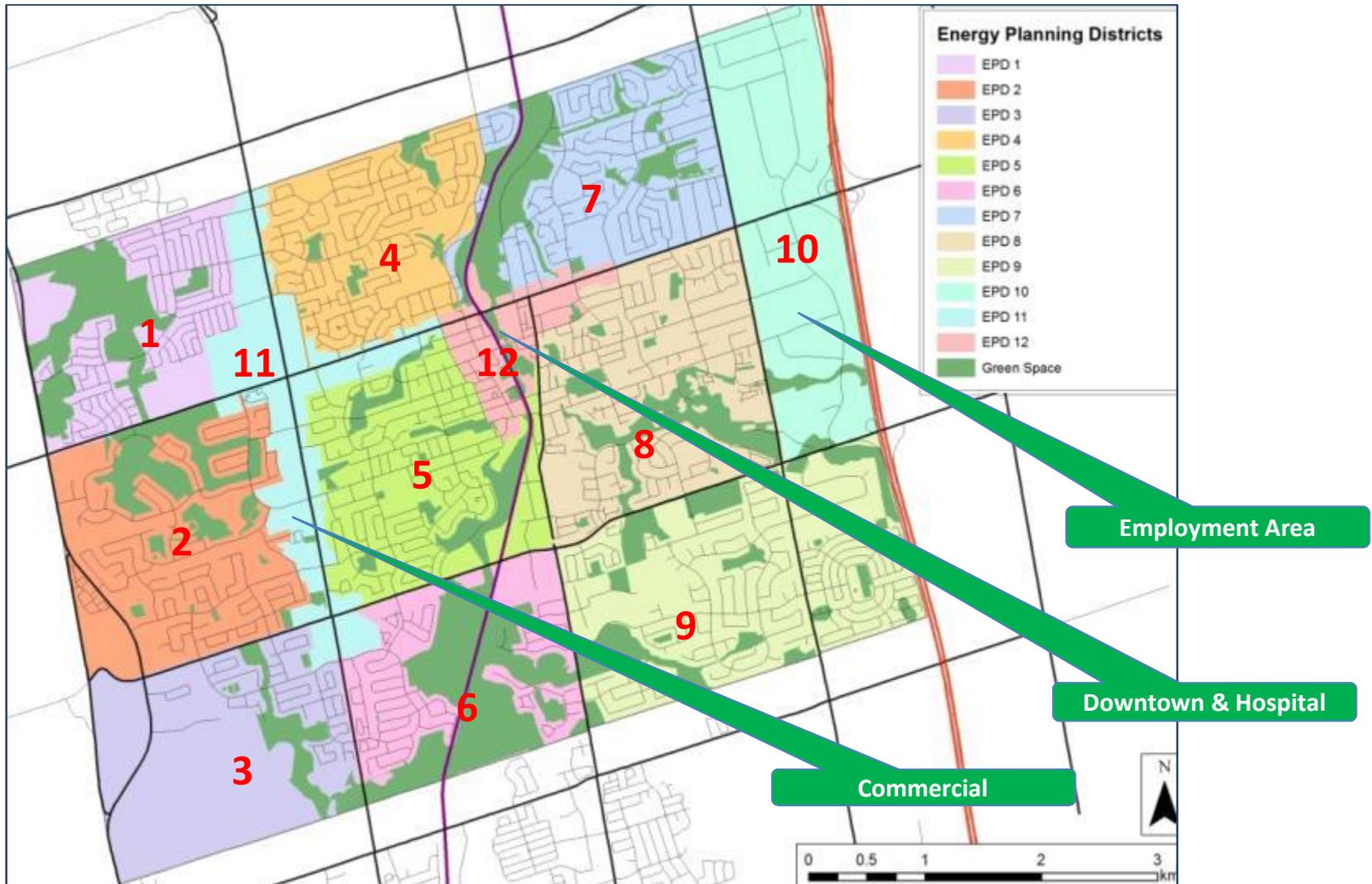


Cost by Sector - 2013 to 2031



Where is Newmarket Using Energy?

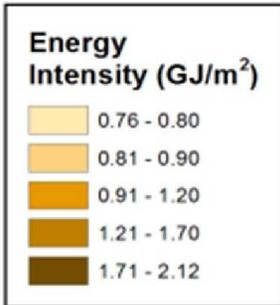
Mapping Energy to 2031



Homes & Buildings Only

Town of Newmarket Community Energy Plan

Energy Intensity
(GJ/m²) - 2013



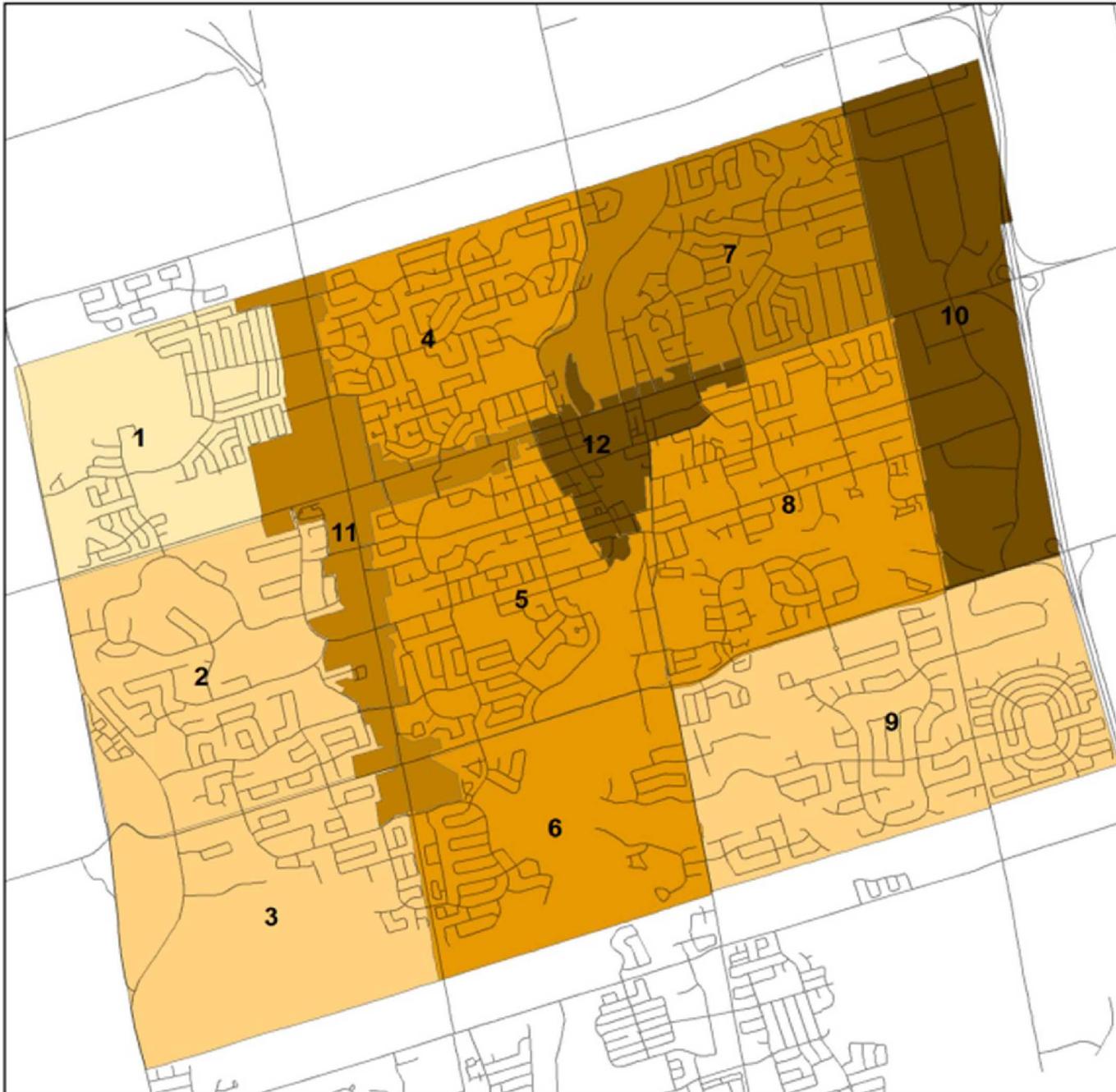
Newmarket



Garforth International Inc

Energy Productivity Solutions

April 2016



CEP Strategies - Residential Efficiency



Deep energy efficiency retrofit program

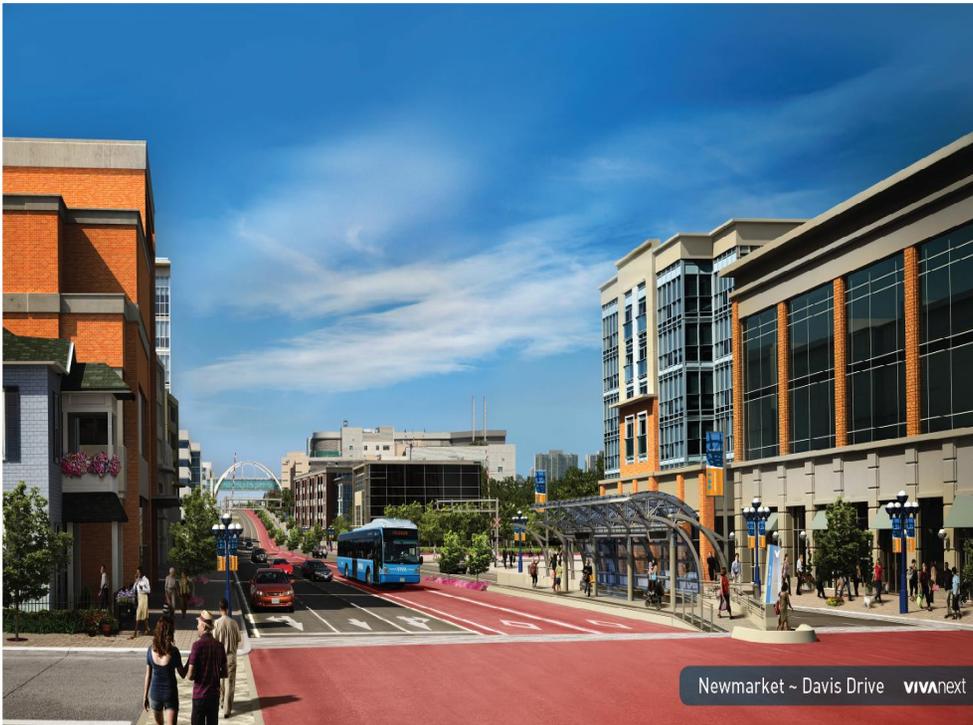


- Increase efficiency by 30% & 50%
- 80% of housing stock
- 100% compliance with applicable OBC for new homes

CEP Strategies - Commercial / Industrial Efficiency



Increased Commercial / Industrial Efficiency



- Energy efficiency retrofits for 60% of buildings
- Increase efficiency by 30% & 50%
- Publicly funded 30% higher than current code
- 100% compliance with applicable OBC for new construction

CEP Strategies – Transportation Efficiency



Facilitating Transportation Efficiency



- York Region Smart Commute and others
- Electric Vehicles with parking and charging
- Neighbourhood & streets design

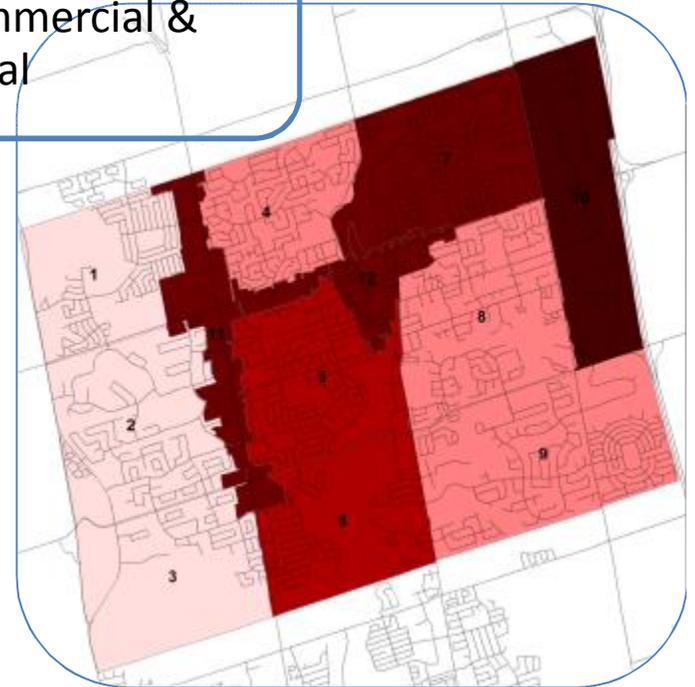
CEP Strategies – District Energy



District Energy System



- EPD 11 & 12
- Feasibility
- Framework for Planning, Legal and Operational
- Target commercial & institutional



CEP Strategies – Solar PV



Solar PV Installation



- Supportive Provincial policy
- Reduce summer peak
- 4% to 5% of total power
- Carbon free



Town of Newmarket CEP supports possible future directions



Globe and Mail article – May 16, 2016 Ontario to spend \$7 billion on sweeping climate change plan

- “ \$3.8B in new funding for small building retrofits towards low-carbon heating
- “ Building code updates that will require all homes (2030+) be near zero emissions
- “ \$1.2B to help factories and other industry cut emissions
- “ \$285M electric vehicle incentives
- “ \$280M to help school boards buy electric buses and trucking companies switch to lower-carbon trucks
- “ \$354M for GO regional rail network.
- “ \$200M to build more cycling infrastructure

A screenshot of a news article from The Globe and Mail. The article is titled "Ontario to spend \$7-billion on sweeping climate change plan" and is categorized under "ENVIRONMENT". The author is listed as "ADRIAN MORROW AND GREG KEENAN". The article was published on Monday, May 16, 2016, at 5:00AM EDT and last updated at 4:30PM EDT. The article has 1256 comments and is shared on various social media platforms. The article content is partially visible, starting with "The Ontario government will spend more than \$7-billion over four years...".

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#ONCLIMATE

ENVIRONMENT
Ontario to spend \$7-billion on sweeping climate change plan

ADRIAN MORROW AND GREG KEENAN
TORONTO — The Globe and Mail
Published Monday, May 16, 2016 5:00AM EDT
Last updated Monday, May 16, 2016 4:30PM EDT

1256 Comments 25K 24K 1K 58 Print / License

Read more: Full details of the incentives and costs of the Ontario government's Climate Change Action Plan

The Ontario government will spend more than \$7-billion over four years...
...sweeping climate change plan that will affect every aspect of life...

CEP Implementation



CEP Implementation



Resource Needs

Recommended Activity	Description / Timelines	Cost Estimate	Funding Source
Newmarket Energy Efficiency Retrofit Business Plan	Before the end of 2017.	\$100,000	Recoverable cost assuming NEER goes ahead
District Energy Business Plan	Before the end of 2017.	\$85,000	Recoverable cost assuming NDE goes ahead
Energy Performance Labelling Program	Detailed Newmarket EPL Program - before the end of 2017.	\$50,000	Potentially recoverable from NEER
Town Energy Manager	Appoint or retain an Energy Manager before the end of 2016.	\$75,000/yr FTE	Identification of funding is part of role, shared costs to be explored with utility providers
CEP Education and Outreach campaign	Be developed before the end of 2016	\$25,000	Recoverable cost assuming NEER goes ahead
Facilitation of the CEP Implementation Advisory Group	CEP SAG would be transitioned to an Implementation Advisory Group over 2016-2017 Quarterly IAG meetings.	\$15,000	

CEP Outcomes

Well Beyond the Ordinary



Competitiveness

1. Energy cost
2. Employment
3. Investment



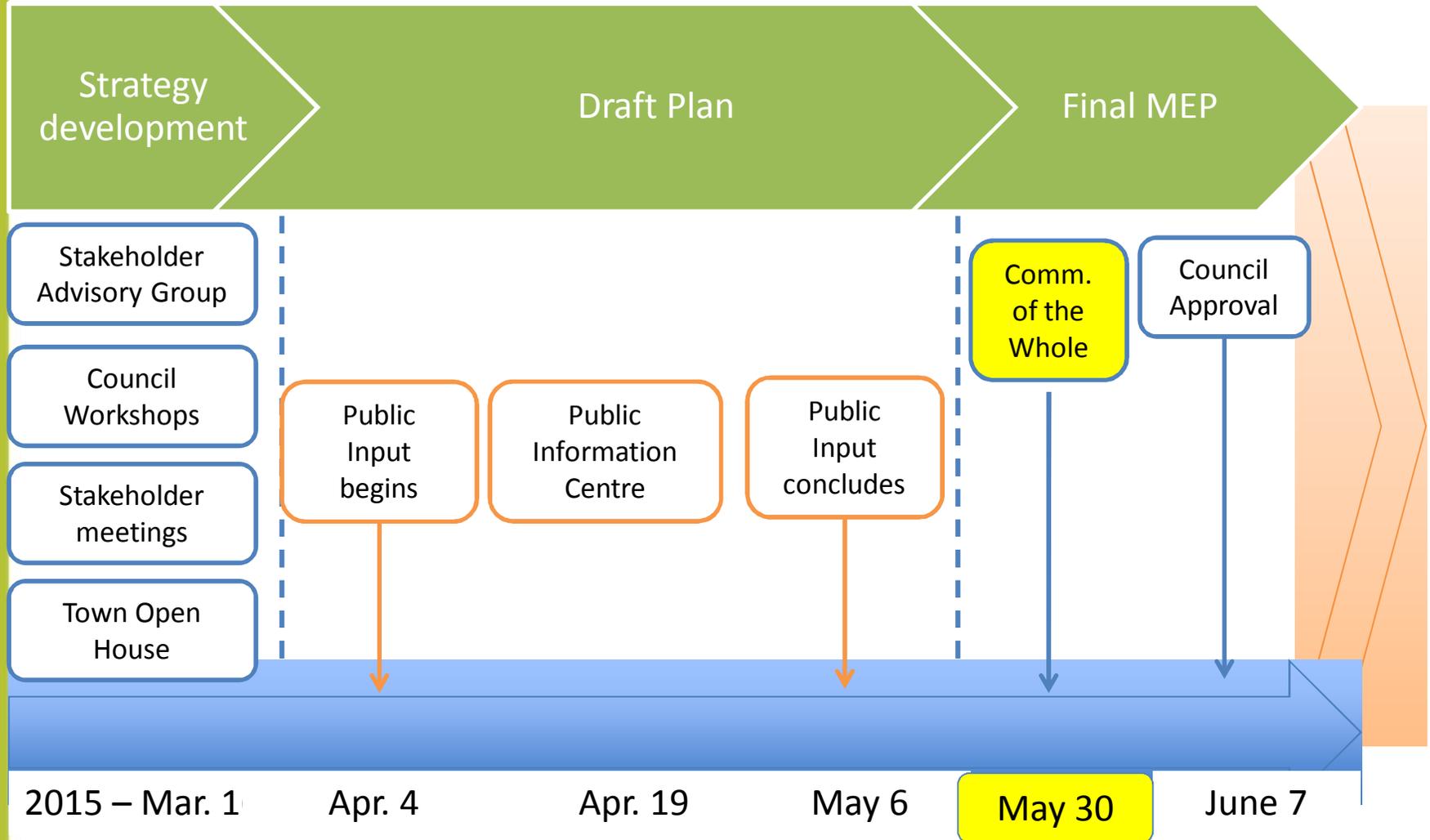
Security

4. Supply security
5. Supply quality
6. Flexibility

Environment

7. Greenhouse Gas Reduction

Moving towards Plan Completion



Thank You!



Any questions or comments?

Please contact us.

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