



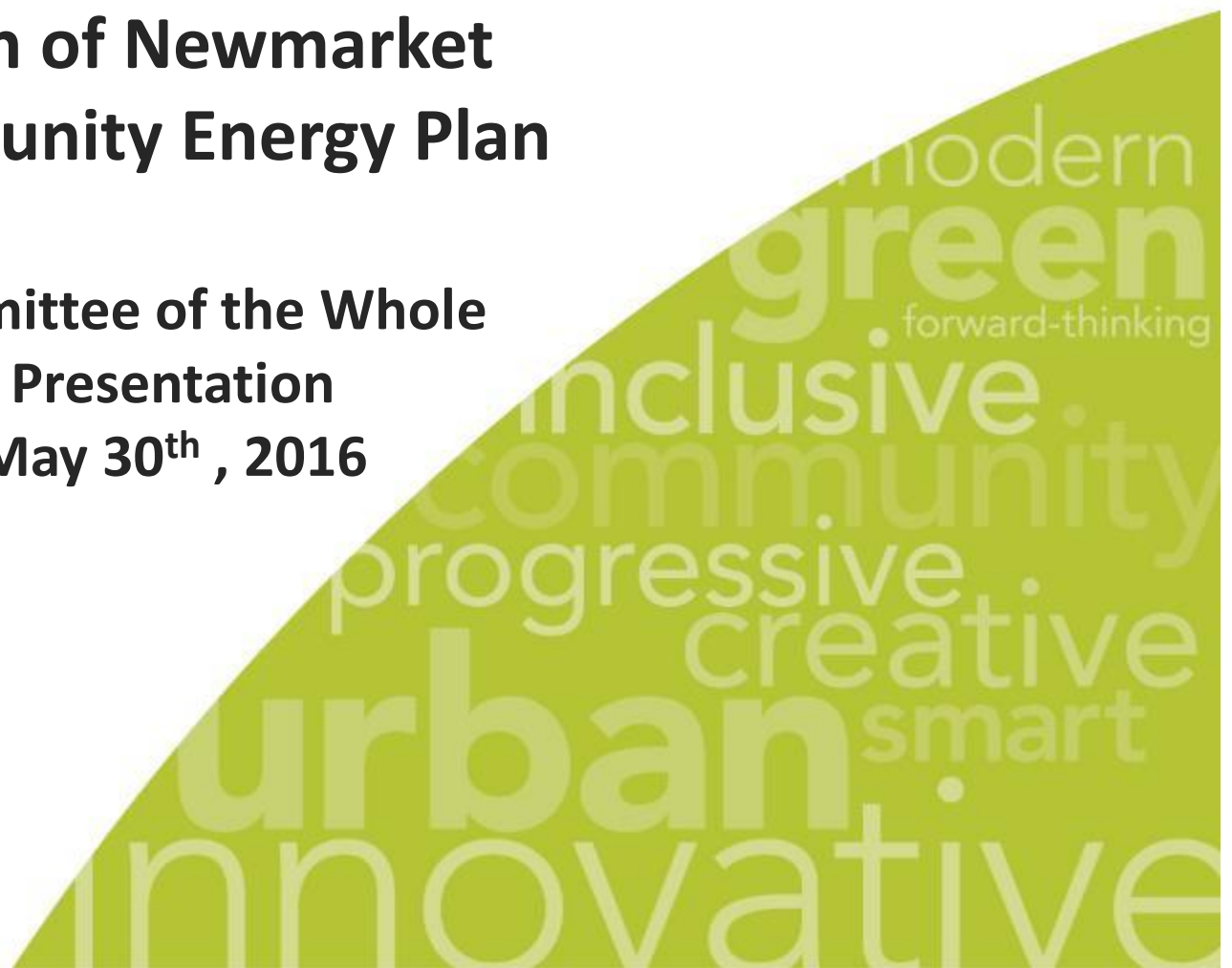
# Town of Newmarket Community Energy Plan

Committee of the Whole  
Presentation  
May 30<sup>th</sup> , 2016

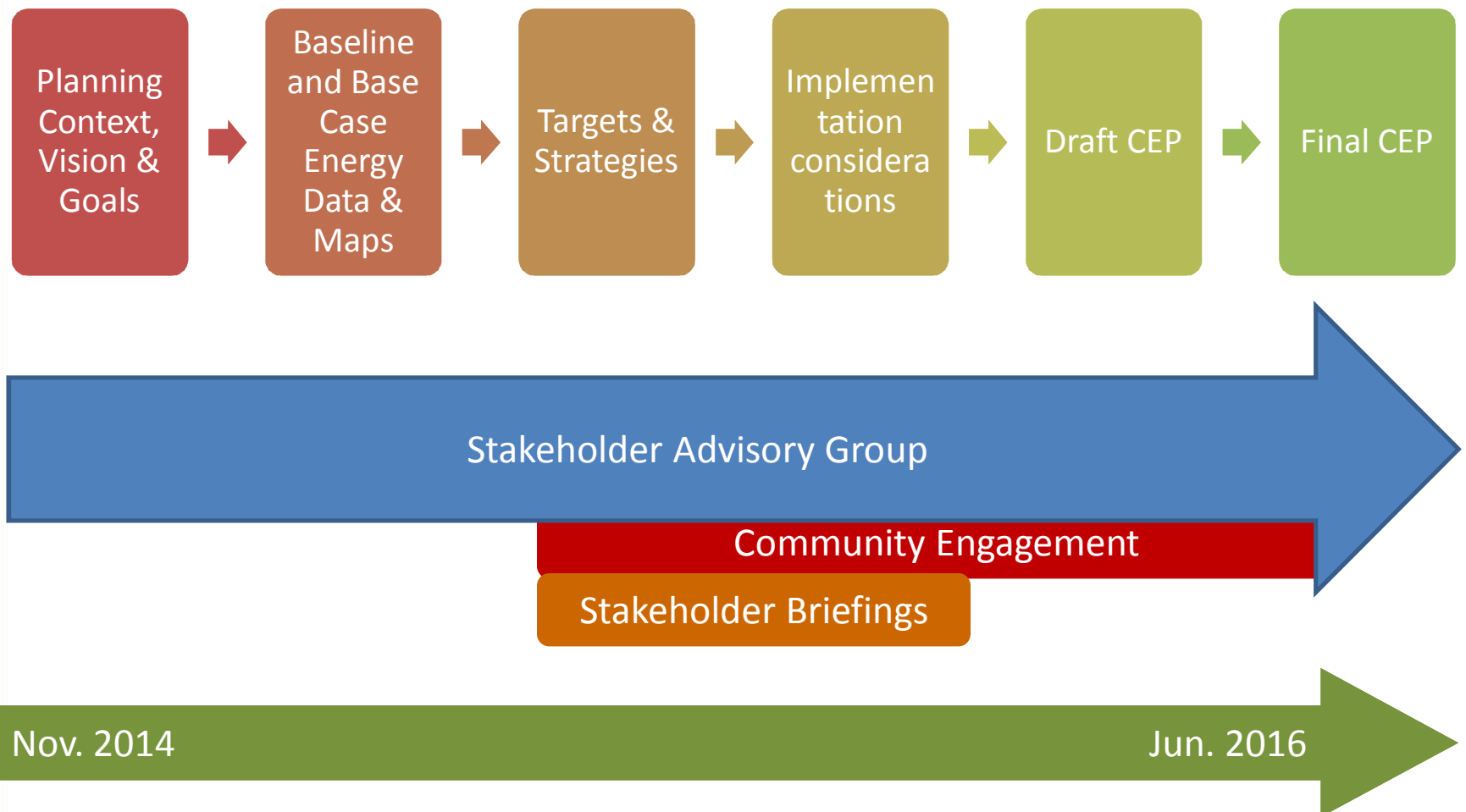
Planning & Building Services  
Planning Division

Town of Newmarket  
395 Mulock Drive  
PO Box 328, STN Main  
Newmarket, ON, L3Y 4X7

[www.newmarket.ca](http://www.newmarket.ca)  
[planning@newmarket.ca](mailto:planning@newmarket.ca)



# MEP Planning Process Diagram



## CEP Vision

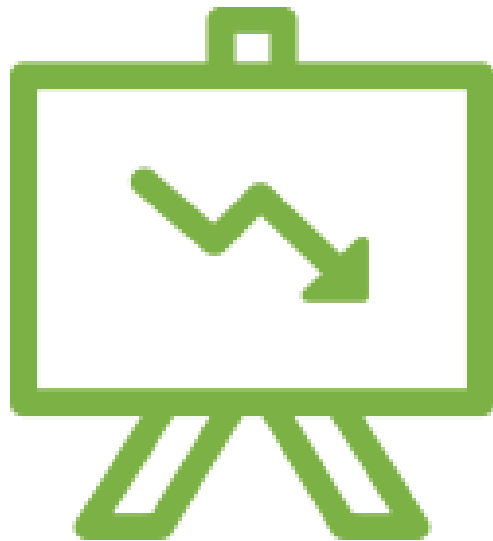


To create a sustainable community whose energy future is efficient, secure, reliable, and environmentally progressive. Our approach to managing energy will demonstrate leadership and be *well beyond the ordinary*.

# 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

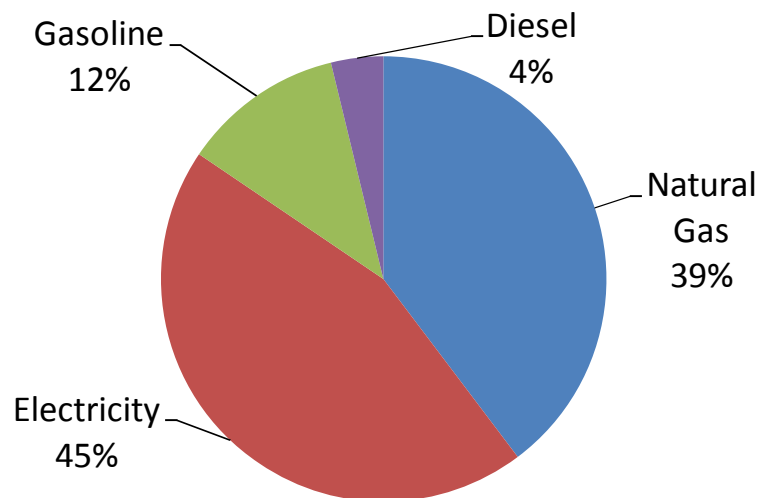


- Energy Generation & Distribution
- Economic Development:
- Behaviour Change & Education
- Energy Efficiency of Buildings
- Land Use & Growth Planning
- Transportation Efficiency

# How Much Energy Does Newmarket Use?

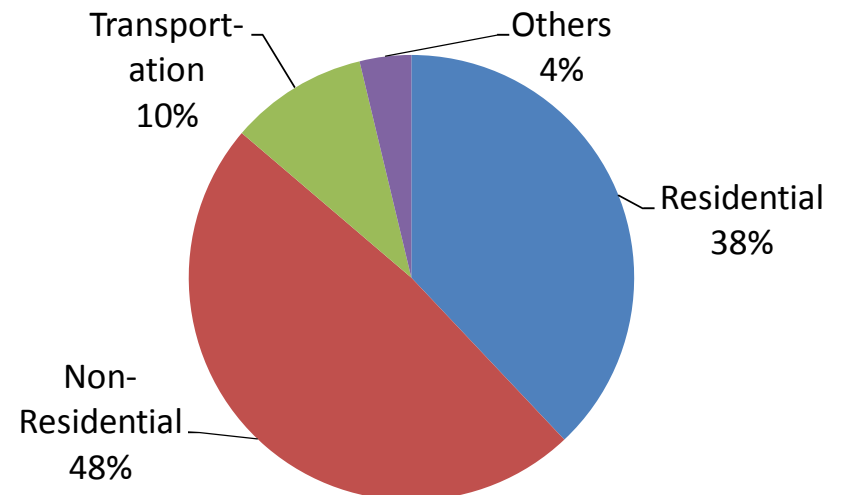


## Energy Use by Source (2013)



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

## Energy Use by Sector (2013)

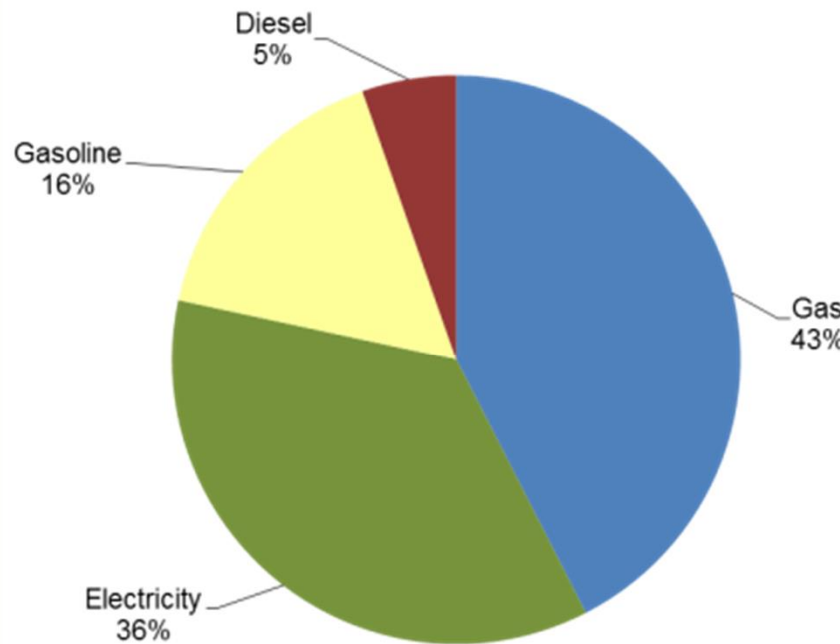


- " \$245 million
- " 80% leaves Newmarket

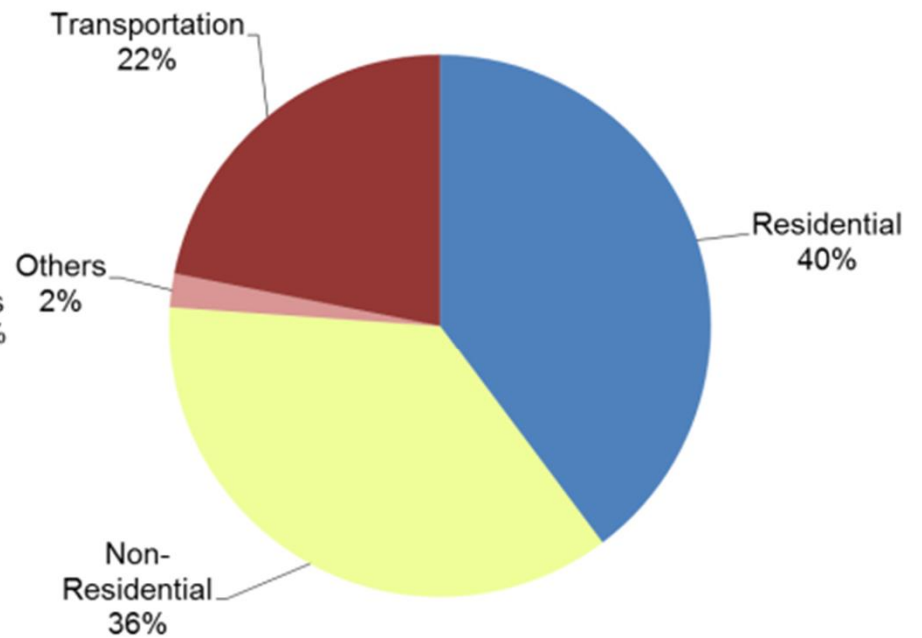
# How Much GHG Does Newmarket Release? 560k mt



## 2013 Greenhouse Gas Emissions



**By Utility**



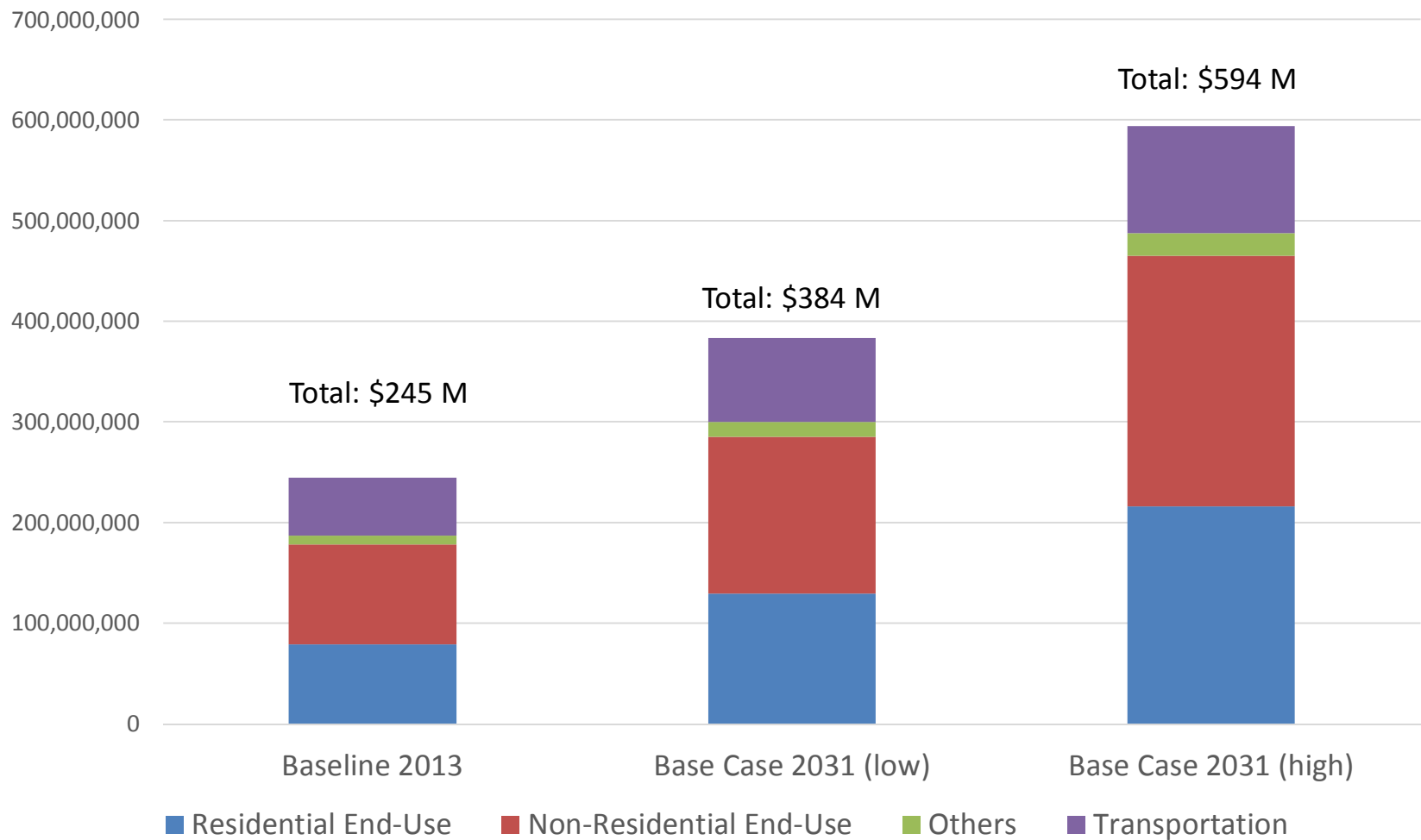
**By Sector**

6 tonnes CO<sub>2</sub> for every resident

# Energy Price Risks



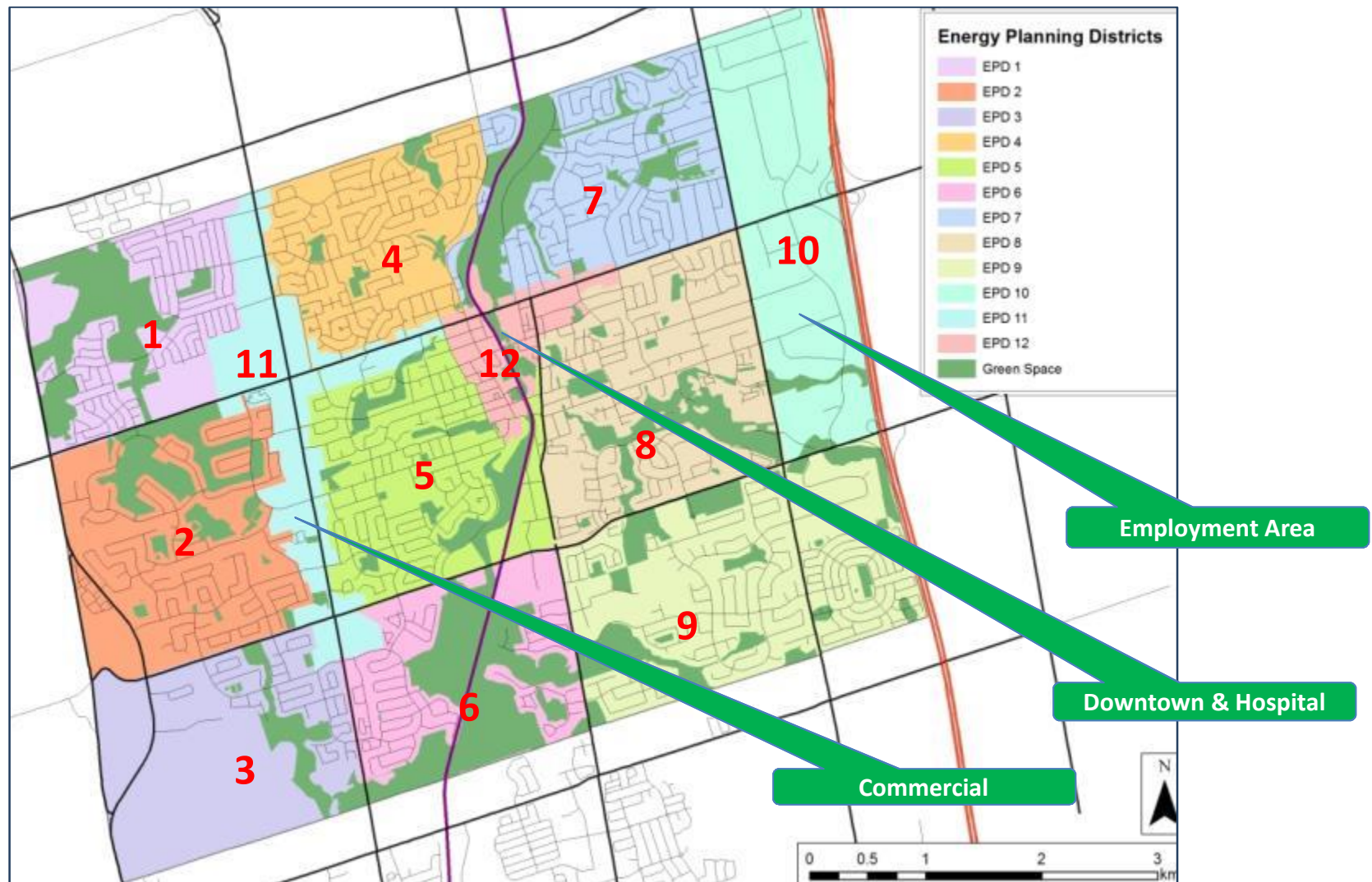
Cost by Sector - 2013 to 2031



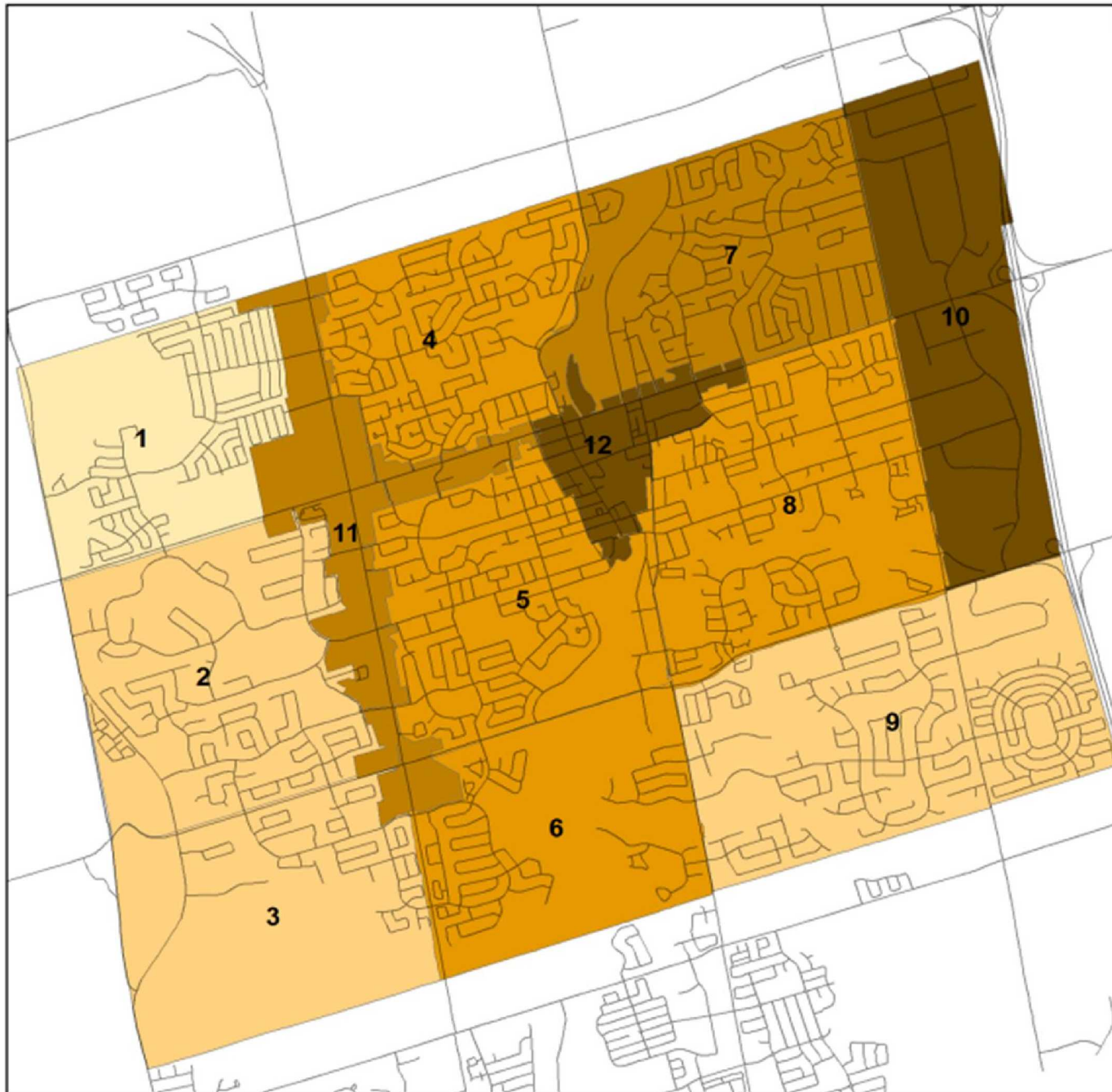


# Where is Newmarket Using Energy?

## *Mapping Energy to 2031*



*Homes & Buildings Only*



## Town of Newmarket Community Energy Plan

Energy Intensity  
(GJ/m<sup>2</sup>) - 2013

### Energy Intensity (GJ/m<sup>2</sup>)

0.76 - 0.80
0.81 - 0.90
0.91 - 1.20
1.21 - 1.70
1.71 - 2.12

0 0.25 0.5 1 1.5 2 2.5  
Kilometers



Newmarket



**Garforth International Inc**

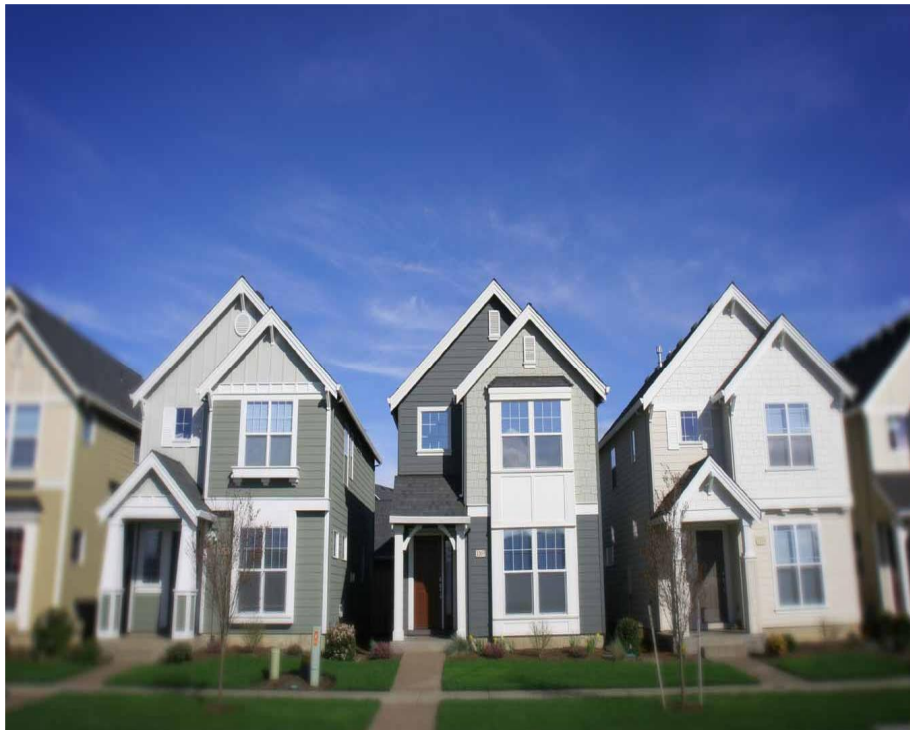
*Energy Productivity Solutions*

April 2016

# CEP Strategies - Residential Efficiency



Deep energy efficiency retrofit program



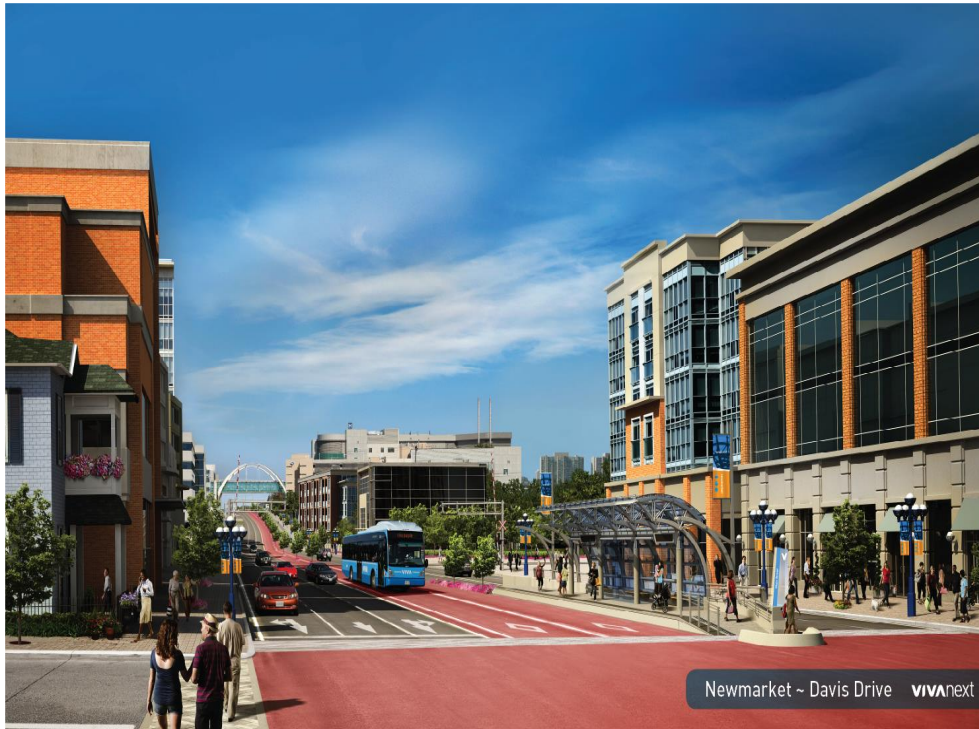
- Increase efficiency by 30% & 50%
- 80% of housing stock
- 100% compliance with applicable OBC for new homes



# 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



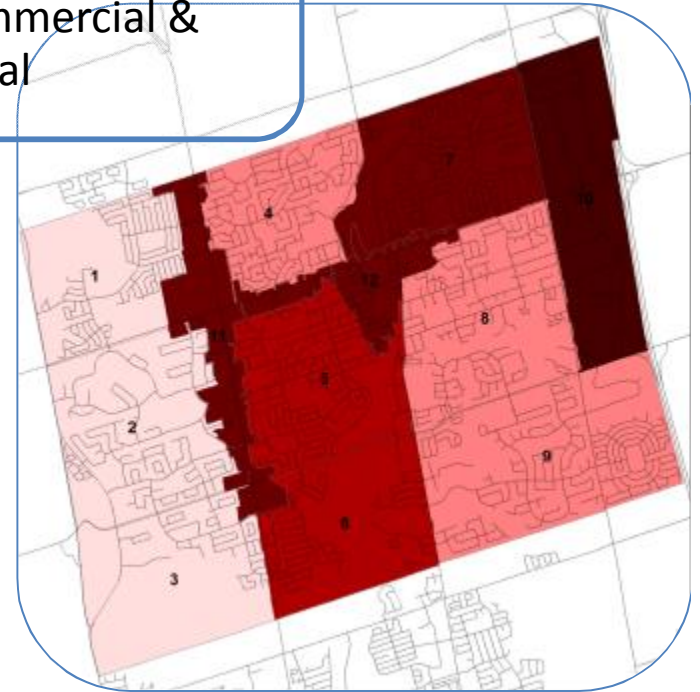
- York Region Smart Commute and others
- Electric Vehicles with parking and charging
- Neighbourhood & streets design

# 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". It is written by Adrian Morrow and Greg Keenan. The article includes a photo of a man with glasses and a background of colorful buildings. The article text mentions that the Ontario government will spend more than \$7-billion over four years on a sweeping climate change plan. The article is dated Monday, May 16, 2016, 5:00AM EDT. The article has 1256 comments and is shared on various social media platforms. The article is part of a series of articles on climate change, as indicated by the "#ONCLIMATE" hashtag in the photo. The article is also part of a larger report on the Ontario government's Climate Change Action Plan, as indicated by the "Read more" link.



# 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



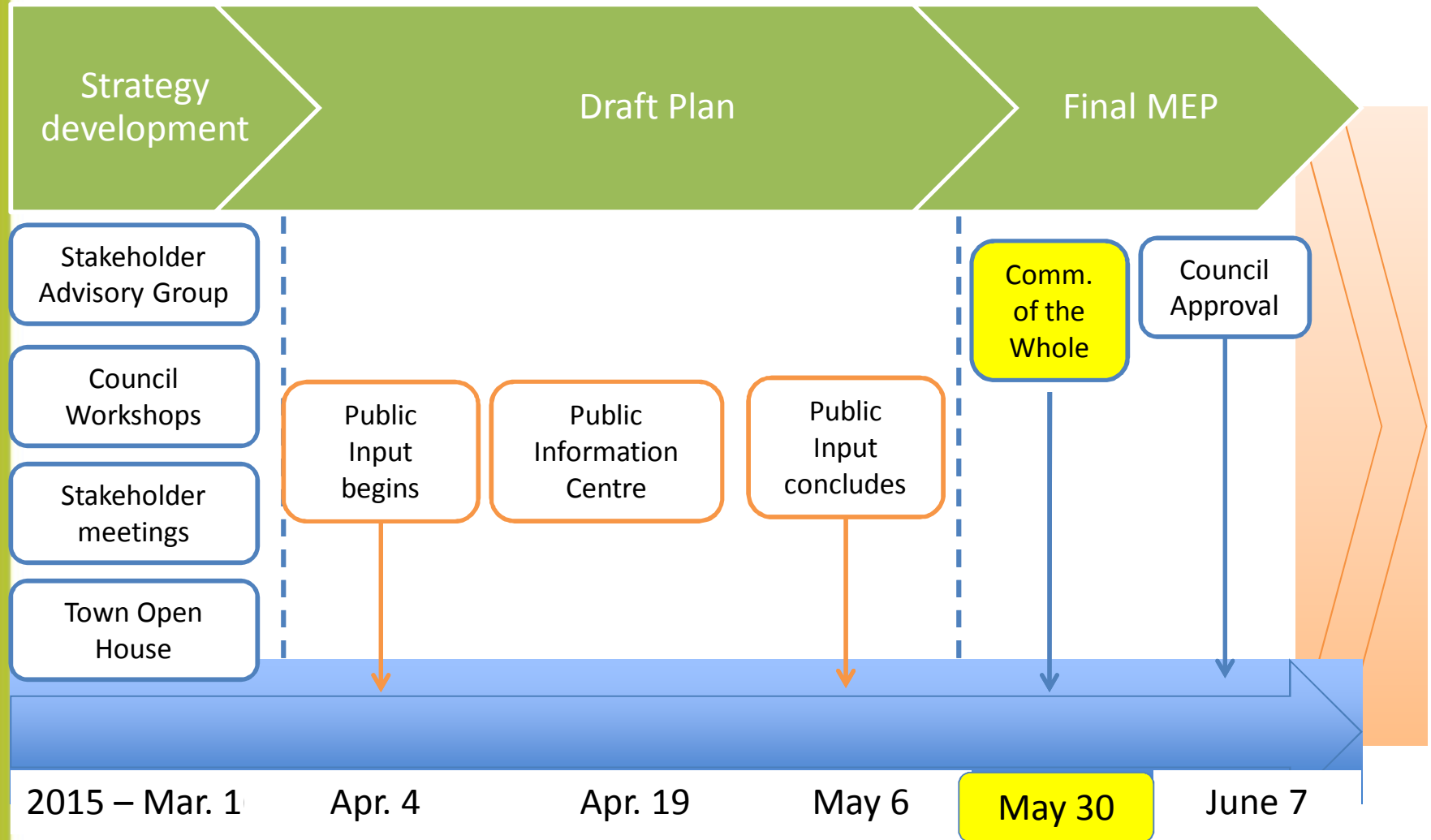
### Security

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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