

Markham's Municipal Energy Plan

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Jennifer Wong, Sustainability Services Coordinator

E: jwong4@markham.ca

T: 905-477-7000 ext. 2368

Graham Seaman, Director, Sustainability

E: gseaman@markham.ca

T: 905-415-7523

Agenda

- Purpose of a Municipal Energy Plan (MEP)
- Ministry of Energy MEP Program
- Final Product
- MEP Stakeholder Working Group
- Progress to Date
- Growth in Markham

Purpose of a Municipal Energy Plan (MEP)

- Aligned to the Greenprint to achieve the objective of **Net zero energy, water, waste and emissions by 2050**
- Integrates energy conservation with:
 - land use, infrastructure, water, wastewater and active transportation objectives
- Creates cost effective efficiencies
- Identifies local opportunities
- Supports local economic growth/development
- Considers energy in future growth areas
- Incorporates multi-stakeholder engagement

Ministry of Energy MEP Program

Markham is supported with \$90K in funding from Province

- Stage 1A: Stakeholder Engagement
- Stage 1B: RFP Preparation
- Stage 2: Energy Mapping & Study
- Stage 3: Energy Plan Development

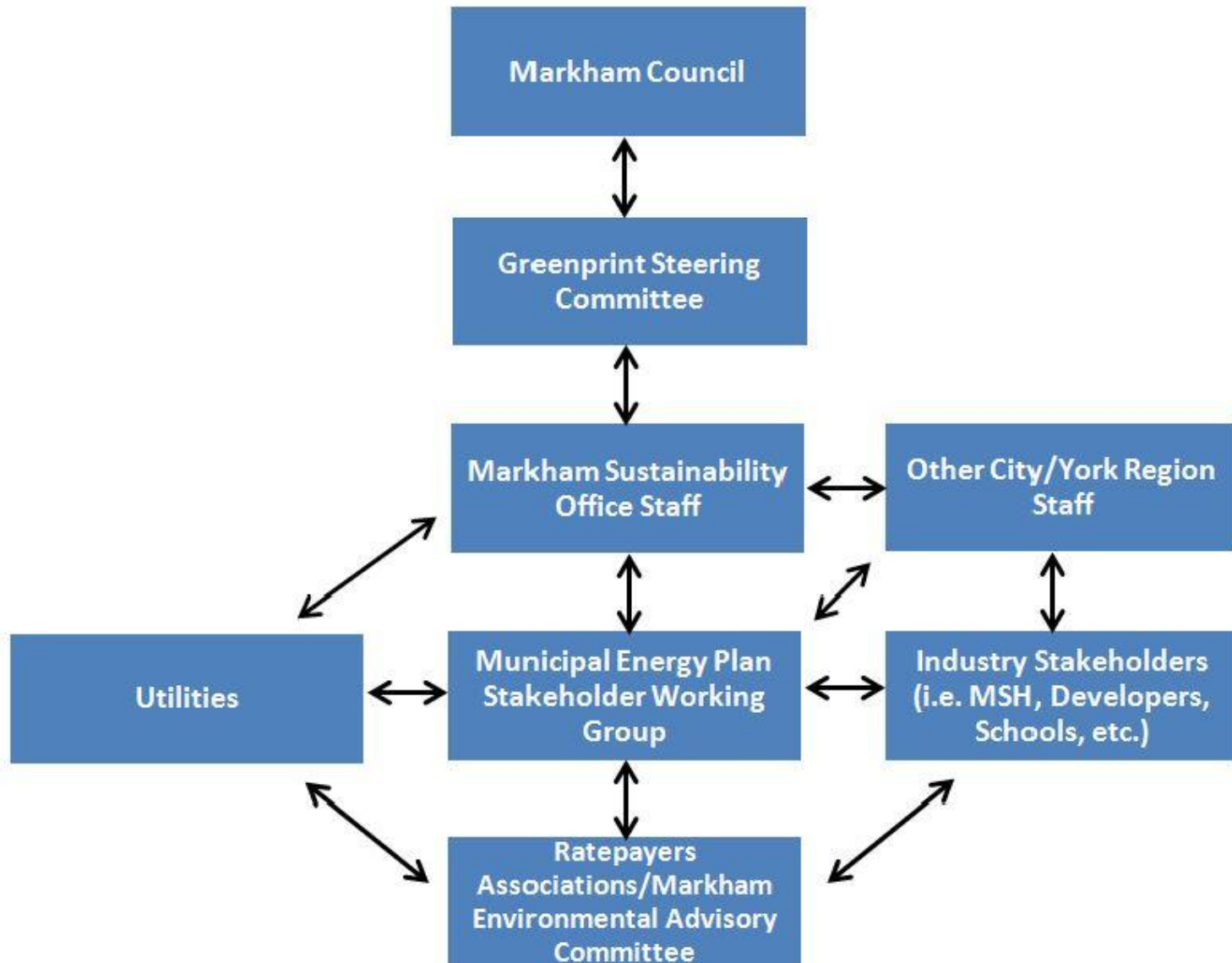
Municipal Energy Plan – Final Products

- Citywide GIS based energy intensity map (ekWh/m² and ekWh/capita)
- Baseline energy supply, distribution and consumption profile
- Terms of Reference for Community Energy Plans in Secondary Plans
- Energy Descent Strategy to achieve net zero 2050
- Implementation Plan
 - Monitoring & Reporting Plan
- Communication & Engagement Plan

MEP Stakeholder Working Group

- City departments
- Local utility companies
- York Region
- IESO (Independent Electricity System Operator)
- North Markham Landowners Group
- Residents' Associations
- “MUSH” Sector
 - Municipalities, Universities, Schools and Hospitals
- BOMA (Building Owners and Managers Association)
- BILD (Building Industry and Land Development)
- Markham Environmental Advisory Committee
- IBM Canada

MEP Governance Chart



Progress to Date & Next Steps

- **Stage 1A: Stakeholder Engagement**
 - 4 stakeholder working group meetings
 - 60+ stakeholders
- **Stage 1B: RFP Preparation**
 - 1-week public consultation
 - Successful bidder awarded
- **Stage 2: Energy Mapping & Study**
 - Define net zero objective
 - Review CEP Terms of Reference for Secondary Plans
 - Build energy intensity map
 - Develop cost impact evaluation

Forecasted Growth in Markham

Based on Provincial Places to Grow, Regional Official Plan and Markham's 2014 Official Plan we are forecasting the following:

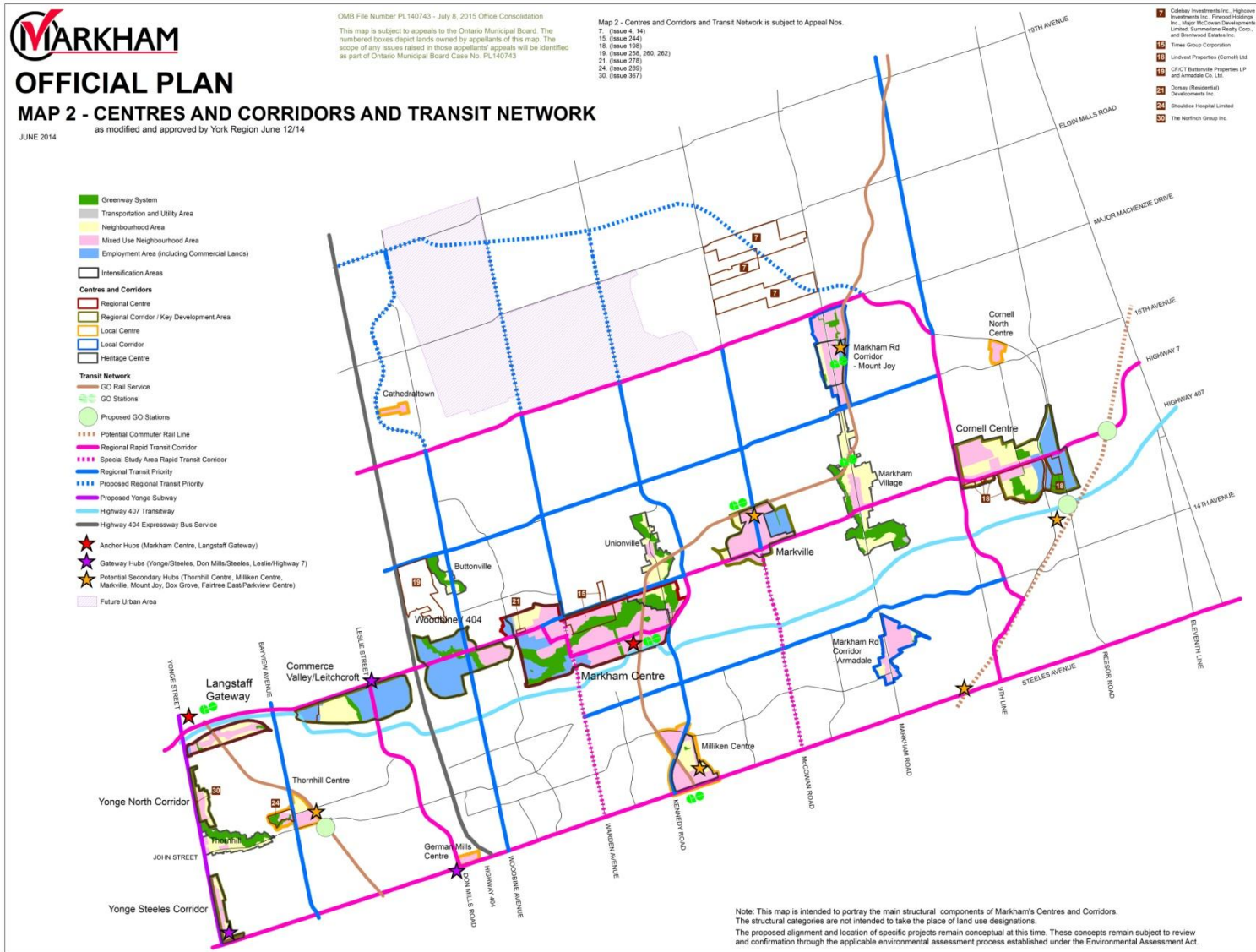
Population

- 2011: 311,400
- 2031: 422,000
- 2041: 535,100

Employment

- 2011: 154,800
- 2031: 240,000
- 2041: 269,200

Growth in Markham - Intensification Areas to 2031



MEP and Growth

- Markham and Regional Official Plans require new development areas to submit a Community Energy Plan (CEP) for Secondary Plans
- Interim CEP Terms of Reference nearly finalized - prescriptive while the MEP is being developed
- Final CEP will be performance based
 - Energy intensity target (ekWh/m²/yr) descending at regular intervals to net zero (0 ekWh/m²/yr) by 2050
- Regard for Community Energy Planning has been included in the Master Environmental Servicing Plan Terms of Reference
 - Expect that utilities will be consulted early and often in the development process



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