



STEP UP – Sustainable Energy Planning for cities

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www.stepupsmartcities.eu



Co-funded by the
European Union



- Enhanced Sustainable Energy Action Plans in 4 cities
- Pipeline of low carbon, innovative, integrated projects in 4 cities
- Training in sustainable city planning to cities' learning networks



- 'Companion cities' coached through SEAP process
- New 'STEP UP' approach for integrated energy planning and enhanced SEAPs available to all



Covenant of Mayors requirements



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- **Sustainable Energy Action Plan**

Overall Strategy

Emissions Inventories

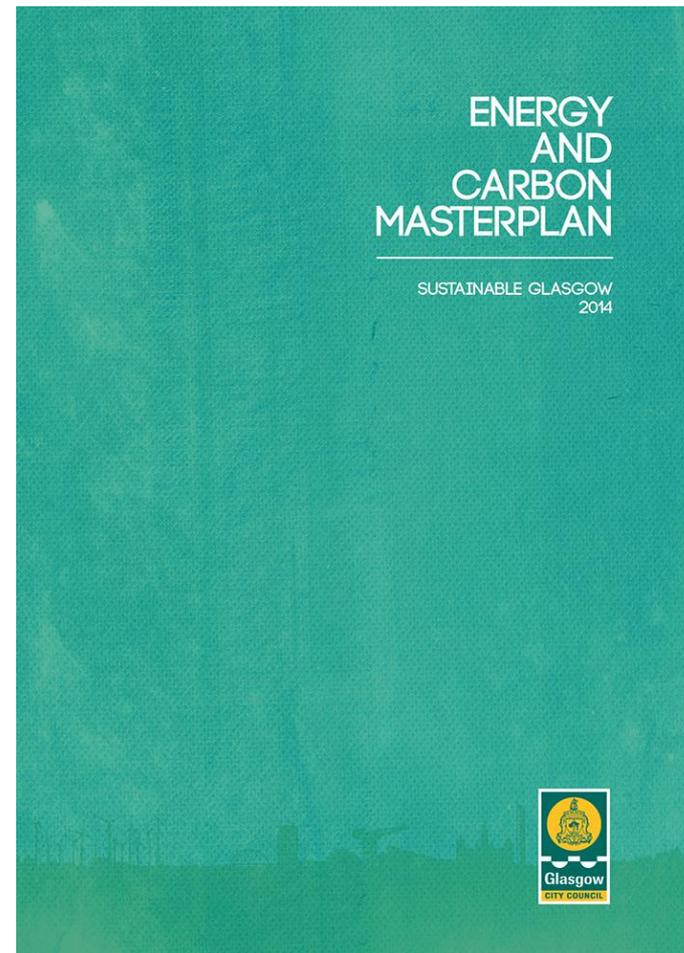
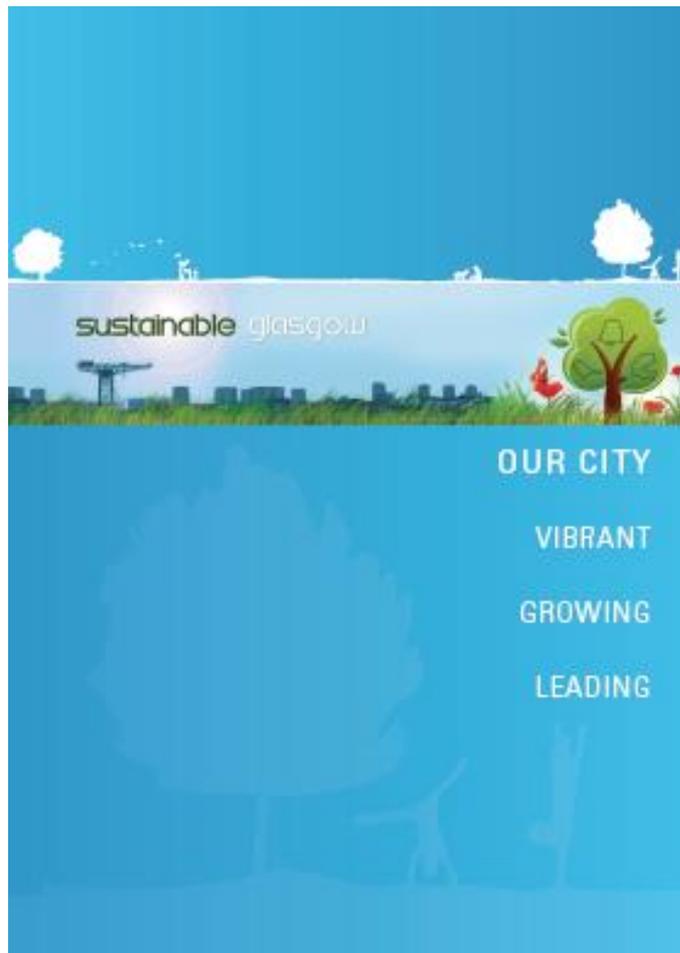
Sustainable Energy Action Plan



SEAP from 2010 to 2014



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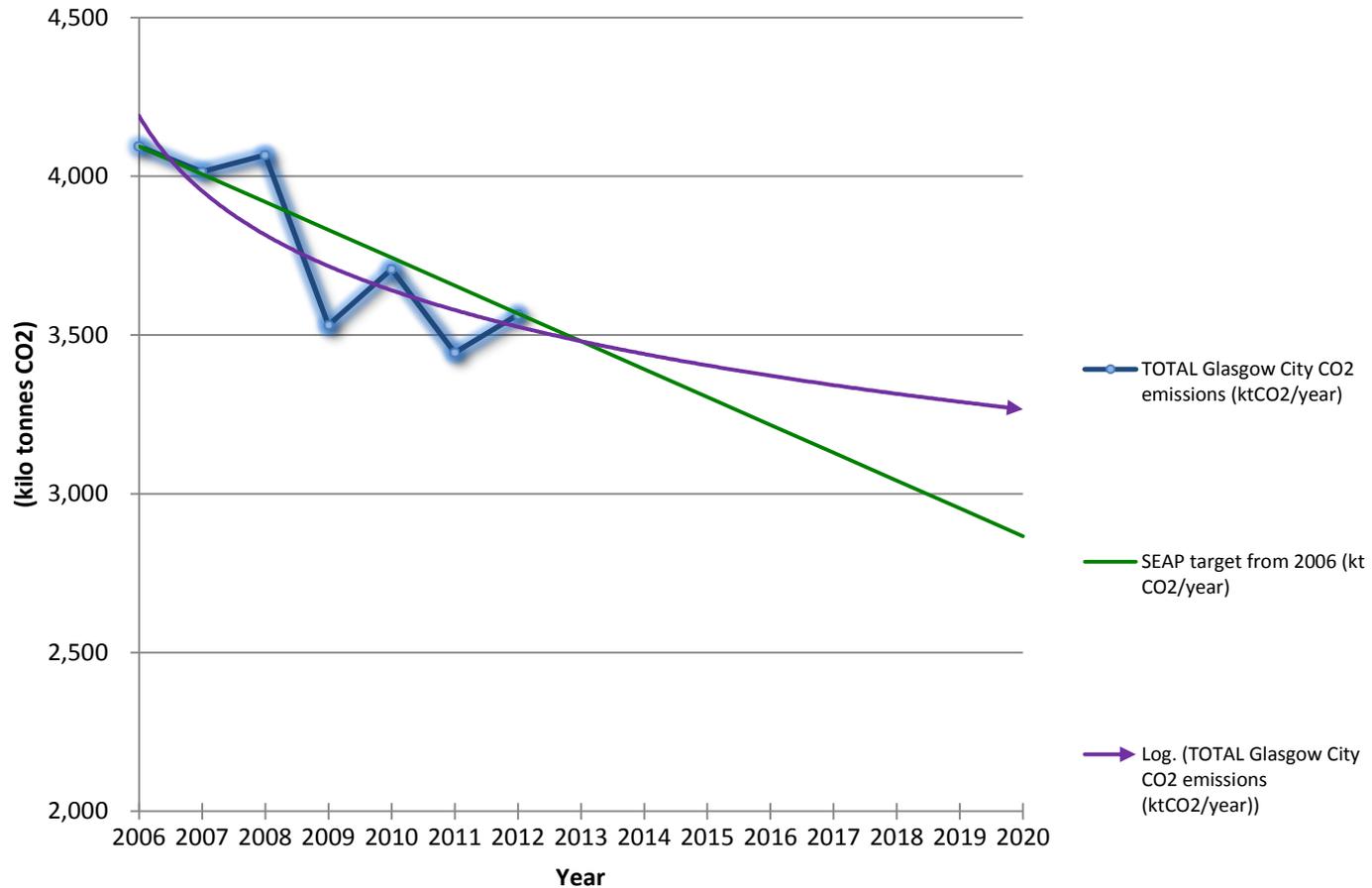
CO₂ emissions 2006 - 2020



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Glasgow CO₂ emissions and trends up to 2020

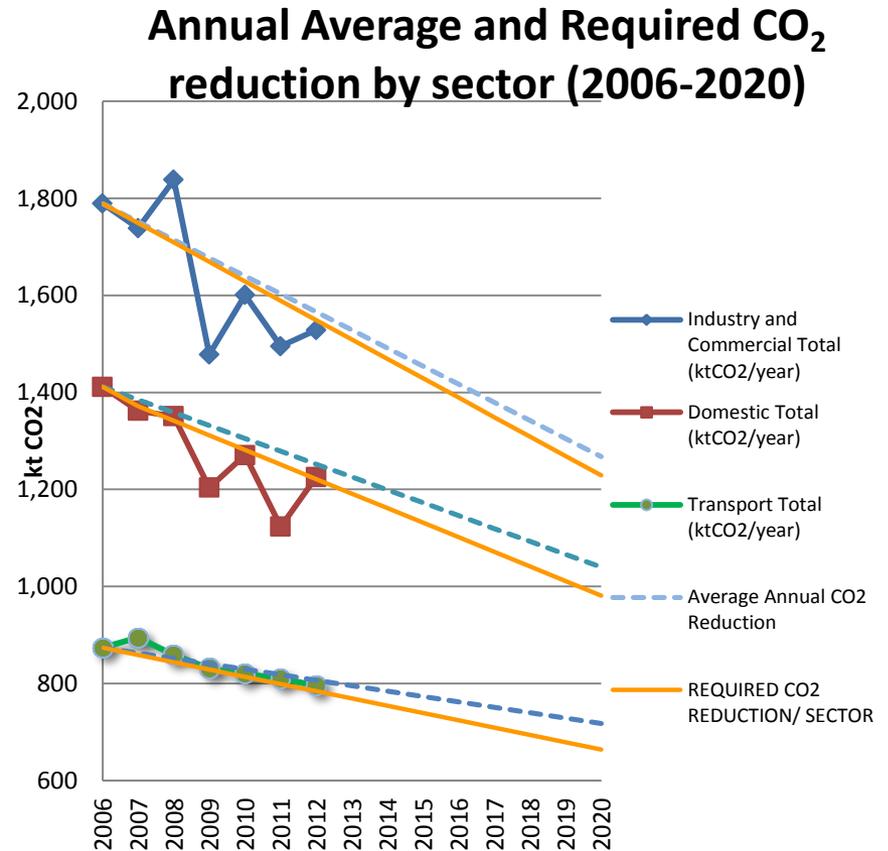
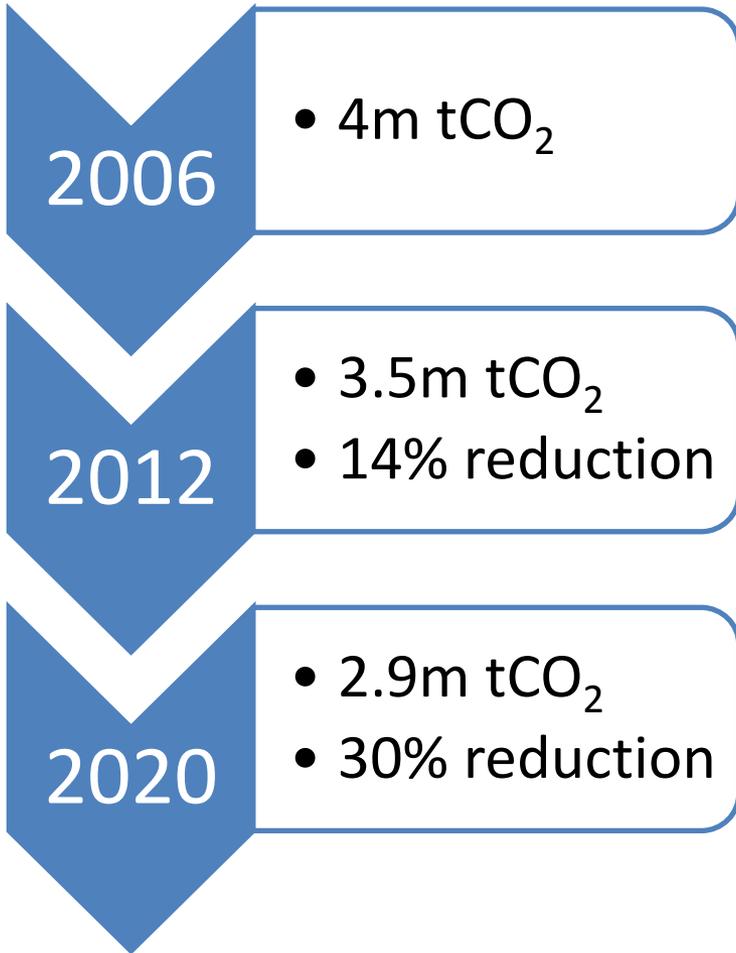




Meeting the 30% target



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The new Energy and Carbon Masterplan



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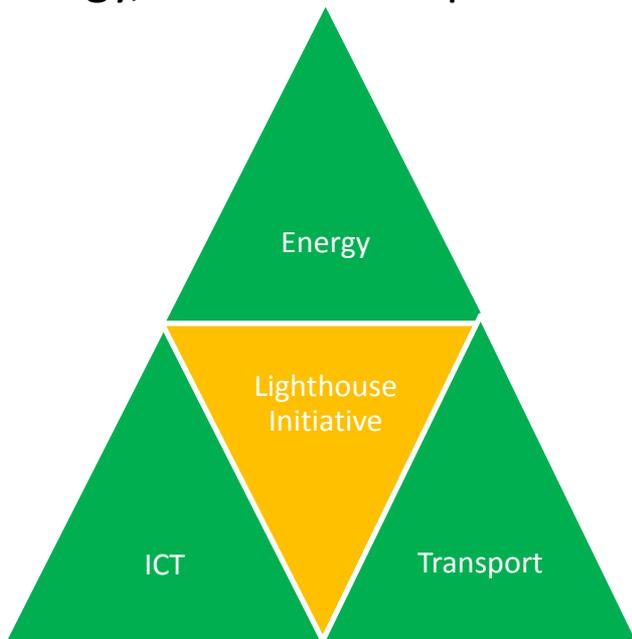


- **Same overall Vision as 2010 report**
- **Maintain 30% CO₂ savings by 2020 target**
- **33 actions featuring:**
 - ✓ **Development of district heating schemes and ESCo**
 - ✓ **Phasing out coal, oil and electric heating**
 - ✓ **Improved energy efficiency and building energy management**
 - ✓ **New LED street lighting**
 - ✓ **New Waste to Energy plant by 2016**
 - ✓ **Promotion of electric vehicles and active travel**
 - ✓ **New wind turbines and solar PV**
 - ✓ **Behavioural change and DSM**
 - ✓ **Integrated Energy Planning**



Innovative Projects

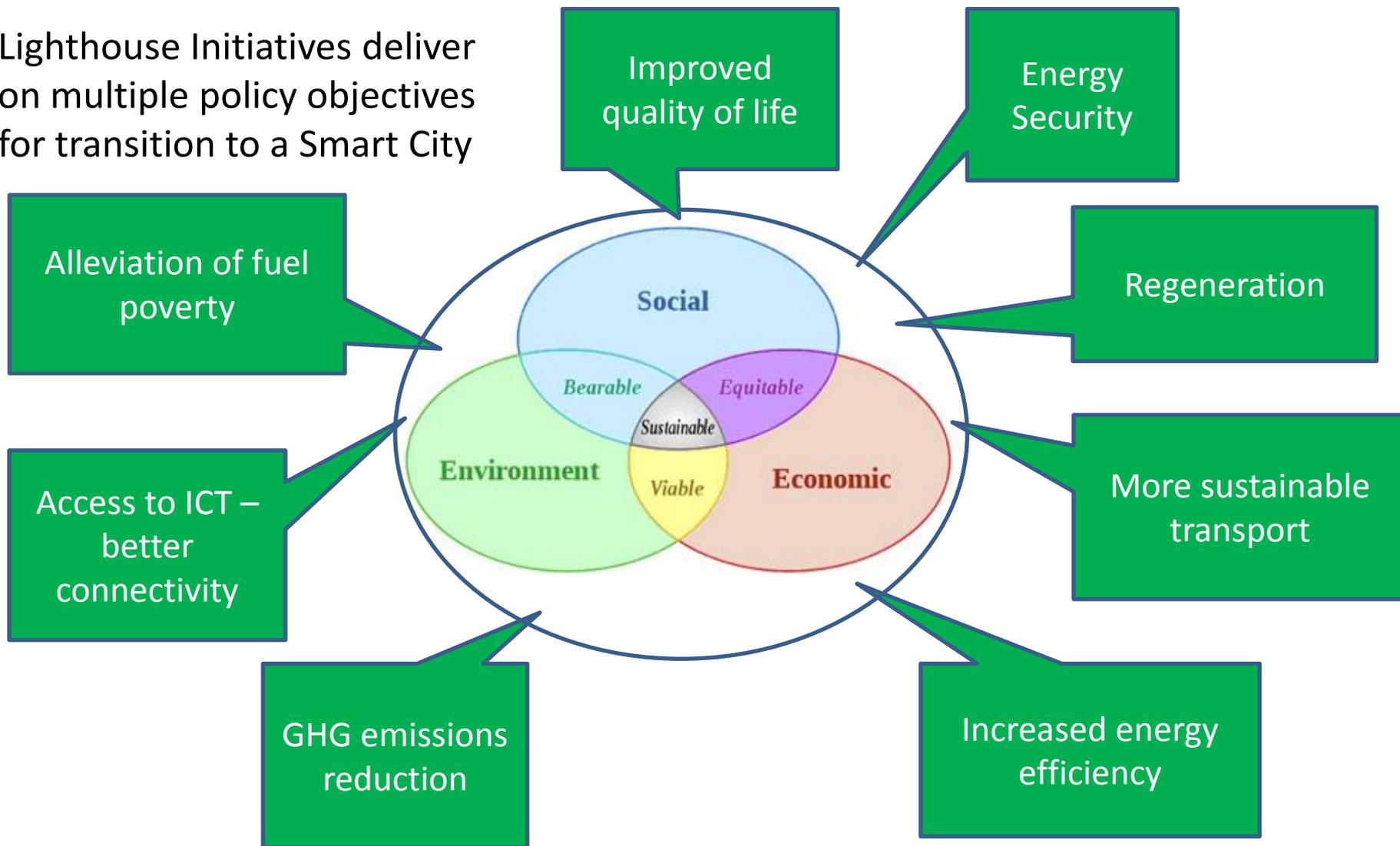
- 9 Lighthouse Initiatives
- Best Practice Projects
- Tackling Challenges and Opportunities
- Lighthouse Initiatives integrate - Energy, ICT and Transport



Key winning elements:

- Political leadership with a long term approach
- Collaboration and dialogue with all stakeholders
- Contribution to multiple policy objectives
- Business models to attract investment

Lighthouse Initiatives deliver on multiple policy objectives for transition to a Smart City



Clyde Waterfront – Regeneration

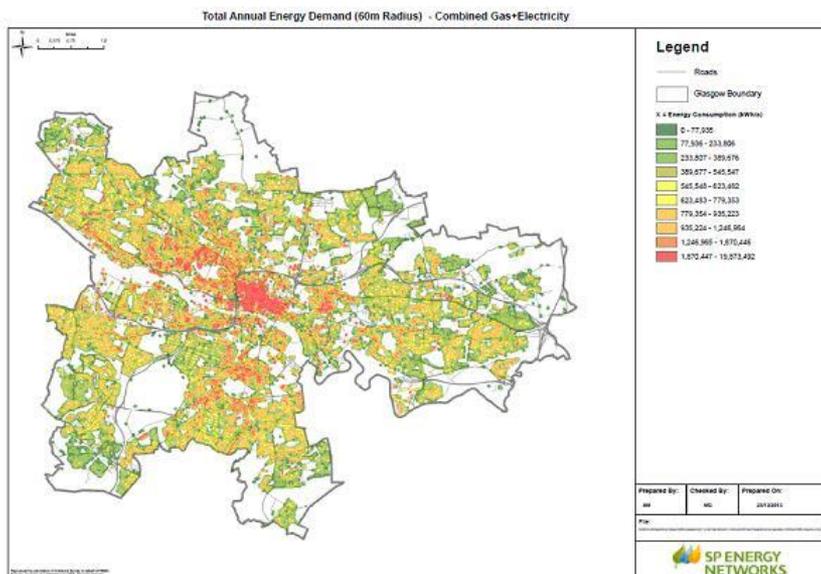


Athletes' Village – Energy efficient housing and district heating

TSB Future Cities Demonstrator – Making Glasgow smarter

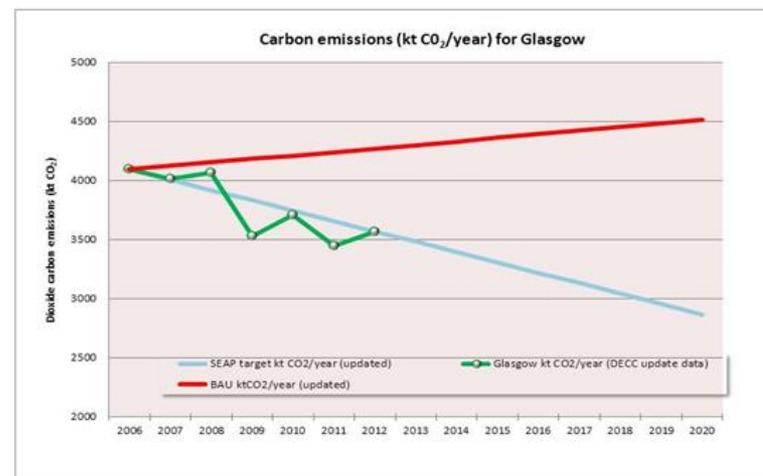


Stakeholder engagement is essential
 – both sector and citizen focussed



Current and projected energy flow analysis – enhances the BEI

Gap & issue analysis of existing SEAPs – helps identify new opportunities



Energy projects must be **integrated** to deliver **multiple objectives**

Key Findings of STEP UP

Communication and **dissemination** throughout SEAP process is essential to ensure ownership and implementation

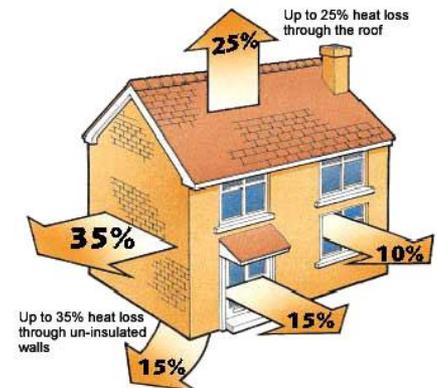
Monitoring plan must be in place to ensure actions are implemented



Political support and leadership is vital

SEAP process is demanding and requires **sufficient resource**.

- District Heating and ESCo
- Street lighting replacement
- Renewable Energy Generation
- Waste to Energy
- Energy Efficiency



Next Steps

- **Approval now complete**
- **Disseminate/communicate in Glasgow Green Year 2015**
- **Establish ESCo in July 2015 and further DH schemes**
- **Establish City Energy Team**
- **Monitoring and Reporting to CoM on 33 actions**
- **Financing projects**
 - PV on vacant derelict land
 - Micro Hydro schemes
 - Wind power

