

PROJECT OVERVIEW

The Greater London Authority (GLA) has created the RE:FIT Building Energy Efficiency Programme, a new procurement framework providing a turnkey contracting model that will greatly accelerate retrofits to reduce energy use in public buildings in London. Since its inception, the programme has been supported by the Clinton Climate Initiative (CCI) Cities Program, which is now a fully integrated partner with the C40 Cities Climate Leadership Group (C40).¹ RE:FIT is the first such model in the United Kingdom and will contribute significantly to London's commitment to reduce carbon emissions by 60 percent by 2025 as set out in the Mayor's draft Climate Change Mitigation and Energy Strategy 2010.

Several leading agencies, including Transport for London, the Metropolitan Police Service, and the London Fire Brigade have taken part in a pilot phase which has implemented energy saving measures in 42 buildings. This pilot identified energy savings of approximately 28 percent, which would save over £1 million in fuel bills per year and reduce annual CO₂ emissions by over 7,000 tonnes per year. Mayor of London Boris Johnson is now widening the scope of the programme to include all public sector buildings in London, including those owned by hospitals, universities and London boroughs. Public sector building owners across the United Kingdom are also now being offered access to RE:FIT, and the GLA is working with private sector building owners and C40/CCI to adapt the model for privately-owned buildings.

RE:FIT

The RE:FIT framework streamlines the procurement process for energy services by providing pre-negotiated, EU-regulation-compliant contracts that can be used with a group of prequalified energy service companies (ESCOs) for the design and implementation of energy

AIM: To pilot the RE:FIT concept and demonstrate benefits.

BUILDINGS COVERED: 42

CO₂ REDUCTION IDENTIFIED: 7,000+ tonnes per annum

ESTIMATED AREA RETROFITTED: 145,852 m²

TOTAL SPEND: £7 million

ENERGY SAVING (PER ANNUM): £1 million

STATUS: Savings are being achieved.

conservation measures. RE:FIT allows public sector building owners to procure a supplier and implement the retrofits as much as six times faster than if they were to undertake their own OJEU² process for public sector procurement. In addition, the RE:FIT central project team provides project development tools, best practice and innovation sharing and direct assistance to participants to further expedite energy reducing projects. RE:FIT transfers the risk of project performance to the ESCOs as they must guarantee the energy savings to be achieved over an agreed payback period. ESCOs also bring leading-edge energy saving design and technology to the public sector.

CCI/C40 ROLE

CCI, in partnership with the C40, worked closely with the GLA group in the development of the RE:FIT framework and:

- Shared global best practices and experiences with energy performance contracting models and global energy service companies
- Provided advice and feedback on the documents that would be part of RE:FIT
- Helped define the framework's project development process

¹ In April 2011, the C40 and CCI Cities Program announced an expanded alliance which brings significant resources and infrastructure to the organisations and their programmes. For more information, please visit www.c40cities.org.

² Official Journal of the European Community, a European Union-mandated procurement process.

- Jointly approached additional London-based public sector “early adopter” organisations to commit to retrofit buildings using the RE:FIT framework
- Supported the RE:FIT central project team in taking organisations through the RE:FIT project development process

THE BENEFITS OF RE:FIT

RE:FIT offers a variety of benefits to public sector building owners.

- **Significant energy and cost savings:** Reduced energy bills, reduced carbon consumption, and reduced operational costs
- **Risk reduction:** Transfers the risk of performance to the ESCO and guarantees pay back of investment
- **Proven model:** Piloted by TfL, Metropolitan Police and London Fire Brigade, approximately 28% energy saving identified (average)
- **Ready-to-use framework:** Existing framework of pre-approved suppliers (ESCOs) and contracts reduces procurement time and cost
- **Sustainability:** Offers a permanent solution that delivers year-on-year savings
- **Support from the GLA:** Central project team and standardised tools, guidance and templates
- **Financing options:** Guaranteed return means funding may be sought from banks and the London Green Fund
- **Single point of responsibility:** The ESCO has contractual responsibility for design, implementation, and ongoing performance

OVERVIEW OF THE RE:FIT PILOT PROJECTS

Transport for London (TfL), the Metropolitan Police Service (MPS) and the London Fire Brigade (LFB) signed separate RE:FIT Agreements in March 2008 with two ESCOs. These organisations have already benefited from RE:FIT.

TECHNOLOGIES

Under RE:FIT, the ESCOs retrofit buildings with the latest energy conservation measures:

| | |
|-----------------------------|-----------------------|
| Photovoltaic panels | Draft proofing |
| Building Management Systems | Combined heat & power |
| Removal of electric heaters | Variable speed pumps |
| PC Shutdown | Replacement boilers |
| Solar thermal energy | Variable controls |
| Replace water heaters | Secondary glazing |
| Insulation | Heat recovery |
| Voltage optimisation | Radiator reflectors |
| Fabric improvements | Thermostats |

THE FUTURE

- With the launch of RE:FIT in London, public building owners across the United Kingdom are now being offered access to this procurement framework to execute cost- and carbon-saving building retrofit projects. Additional public sector building owners have expressed interest in using RE:FIT, selecting buildings to retrofit and preparing to use the framework to select a supplier to execute retrofits.
- The GLA is currently procuring a Programme Delivery Unit to further drive the take-up of RE:FIT over the next three years with a target of retrofitting 40 percent of public sector buildings in London. http://www.london.gov.uk/media/press_releases_mayoral/fire-stations-hospitals-and-universities-line-energy-makeover-following
- The GLA group is also working with private sector owners and CCI/C40 to adapt the model for privately-owned buildings.

CASE STUDIES



Retrofit of 10 fire stations with energy conservation measures

- £521,042 investment
- 17% gas saving
- 42% electricity saving
- 252 tonnes CO₂ saved per annum (27%)
- 10 year payback period
- Initiation to completion in 10 months



Retrofit of 22 buildings with energy conservation measures*

- £3.9 million investment identified
- 25% gas saving
- 25% electricity saving
- 3,700 tonnes CO₂ saved per annum (25%)
- 5 year payback period
- Initiation to completion estimated 24 months

* As identified at initial Investment Grade Proposal stage



Retrofit of 10 police stations with energy conservation measures*

- £3.75 million investment
- 1% gas saving
- 36% electricity saving
- 3,276 tonnes CO₂ saved per annum (29%)
- 10 year payback period
- Initiation to completion in 12 months

* As identified at initial Investment Grade Proposal stage

KEY CONTACTS

KEY CONTACTS FOR THE RE:FIT PROGRAMME

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