Public Sector Programme

18th Jun 2015
The public sector programme
– The public sector
  • Size and scope
  • Progress to date
– The public sector programme
  • Partnerships
  • Best Practice
  • Funding, finance and procurement
  • Monitoring and reporting
Public Sector Spend – approx 600m

FIG. 5: SECTORAL BREAKDOWN OF TOTAL ENERGY SPEND

FIG. 7: BREAKDOWN OF PRIMARY ENERGY CONSUMPTION BY SECTOR

FIG. 10: BREAKDOWN OF MAIN ENERGY CONSUMERS
Two targets essentially

- 2020
  - 33% energy efficiency improvement target (NEEAP 1&2)
  - GWh
    - 1500 GWh savings by 2016 (S.I. 542 of 2009)
    - 3240 GWh savings by 2020 (NEEAP 1&2)
Driving towards €200m savings pa by 2020

- Buildings: up to 30%+
- Public Lighting: up to 20-50% +
- Water Services: up to 30-50% +

5-15% can be achieved at no/low cost, but achieving 33%, and beyond, requires investment
Typical barriers

- Commitment
  - Management
  - Staff
- Resources
  - People
  - Money
  - Data / systems
- Technical opportunities

80-90%

Public sector programme services designed to address barriers
Policy and legal obligations

- **42.5% RES-E by 2020**
- **12% RES-H by 2020**
- **10% RES-T by 2020**

- **‘Exemplary role’ wrt RE: construction & renovation**

- **SI 147 of 2011**

- **NREAP**

- **NEEAP**

- **SI 542 of 2009**

- **SI 151 of 2011**

- **NEEAP2**

- **Building Regulations**

- **EPBD**

- **Green Tenders**

- **EED**

- **‘Exemplar role’**
- **‘Lead by example’**

- **Triple E Register**
- (procurement of equipment/vehicles)

- **33% by 2020**
- **New energy management obligations**

- **3% retrofit target: ‘central government’ buildings**

- **Better procurement of energy supplies, EE & RE services, products & capital projects**

- **2013: DEC > 500 m²**
- **2015: DEC > 250 m²**
- **2018: “nearly zero energy”**
SEAI 2015 objectives

• 2014 report (Target September 2015)

• 300/350 public bodies reported

• Case stories / performing organisations
  – Publication
  – Possible event

• Projects

• Leveraging partnership to drive action
The public sector programme
Public Sector Programme supports - summary

Getting commitment
65 partners > 75% Elec demand

Networking
Best practice sharing
Assessments and other services

1. Partnership Agreements
2. Best Practice
3. Funding, Financing and Procurement
4. Monitoring and Reporting

Track organisation performance
Track projects performance

Energy Services Framework
Supports for projects
National Energy Efficiency Fund
Our partners cover 75% of known consumption
Best practice work services & work packages

- Energy MAP training
- Energy Efficient Design
- Energy in Education
- Advice, Mentoring, Assessment
- Assign Services
- Quality Assurance
- Energy Link
- Communities of Practice COP Leaders
- Case stories, snippets All
- SEAI Sustainable Energy Authority of Ireland
Users must be logged in to view Energy Link

Please sign in
N.B. usernames have been replaced by your registered email address

Email address
Password

Remember me

Sign in

Energy Link is for people involved in public sector energy management in Ireland, who have an interest in energy and environmental issues, to:
- Share and exchange knowledge and experience
- Find out what works and what doesn’t
- Get answers and solve problems
- Receive up-to-the-minute information on current energy issues.

Energy Link currently has 1,105 members. If you work within the Public Sector in Ireland, you can: Sign Up

Energy Link is managed by The Sustainable Energy Authority of Ireland as part of the Public Sector Programme

Energy Link is not related to the Monitoring & Reporting system
The two separate systems require different user accounts / login details. Energy Link administrators do not have any access to the M&R system. You can get support for the M&R system here, or by emailing: mandr@seai.ie

Energy MAP (Energy Management Action programme) is a web-based tool to help you decrease energy use and therefore costs, thus increasing your competitive edge in local and global markets. Energy MAP explains the best practice process in 20 easy to follow steps.

Learn more about Energy MAP>

View all the Energy MAP steps >
Sample Best Practice work package
Public Lighting
Community of Practice

Mission Statement: This Community of Practice has been set up to provide a place where those involved in Public Lighting can post case studies, ask questions and share their experiences.

- Awareness
- Workshops
- Training Masterclasses
- Case studies
- Reports / guides
- SEAI template
  To be launched soon

Case Studies

Forest Logistics Energy Optimisation Project

**Summary**

- **Company name:** Coillte
- **Project actions:** Forestry Logistics Energy Efficiency Project
- **Dates of project:** January 2011 to December 2013
- **Contract type:** ESCo, Coillte acts as supplier to SMEs
- **Finance source:** 35% grant from SEAI
- **Additional funding:** SEAI EWS Scheme
- **Total project cost:** Approx €750,000
- **Simple payback time:** 2 years

<table>
<thead>
<tr>
<th>Annual Energy (kWh)</th>
<th>Annual Costs (€)</th>
<th>Annual CO₂ (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before project</td>
<td>99,367,000</td>
<td>12,288,970</td>
</tr>
<tr>
<td>After project</td>
<td>85,967,000</td>
<td>11,195,996</td>
</tr>
<tr>
<td>Savings (in parentheses)</td>
<td>10,400,000 (9.5% saving)</td>
<td>1,190,000 (9.5% saving)</td>
</tr>
</tbody>
</table>

**Background**

Coillte was established in 1989, today it employs 1,100 people. Coillte's core business is supplying logs to sawmills and panel board manufacturing facilities. As Coillte's Project Manager, Mike O’Shea cut costs across the board and monetised the project in 2011, on the current transport operations with a view to introducing improvements and efficiencies.

Log handling is carried out by independent haulage companies in the Irish forest industry. Haulage is configured by different parties in the wood supply chain. It was identified that efficiencies could be gained by carrying out a collaborative project with all interested parties in the wood supply chain.

The vision of the project is to utilise state of the art technology in the Irish log haulage fleet to:
- Improve log & equipment security reducing theft with vehicle and trailer tracking
- Increase and strengthen SME log handlers by reducing the usage
- Put in place the infrastructure to take the industry as whole forward with the aim that empty running is reduced to minimum for hauliers and customers.

**Coillte Contractor loading logs**

ACETNS Energy Efficiency Management Project

**Summary**

- **Company name:** Adamstown Castle Educate Together NS
- **Project actions:** Reduce energy use and costs; carbon footprints & create sustainable habit change
- **Dates of project:** August 2012 to July 2013
- **Contact type:** Volunteer Work
- **Finance source:** Voluntary Service
- **Additional funding:** None
- **Total project cost:** Nil (Volunteering)
- **Simple payback time:** Nil

<table>
<thead>
<tr>
<th>Annual Energy (kWh)</th>
<th>Annual Costs (€)</th>
<th>Annual CO₂ (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before project</td>
<td>164,084</td>
<td>17,343</td>
</tr>
<tr>
<td>After project</td>
<td>145,530</td>
<td>15,556</td>
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<tr>
<td>Savings (in parentheses)</td>
<td>18,554 (11.3%)</td>
<td>1,787 (13.4%)</td>
</tr>
</tbody>
</table>

**Background**

The Adamstown Castle Educate Together National School (ACETNS) is a one story primary school opened in 2007. It currently has about 323 pupils enrolled and 27 staff with a total building area of 2,536m² and 16 number classrooms.

In 2012, ACETNS in collaboration with Sustainable Ecological Consultant (SEC) (voluntary basis) adopted the Energy Efficiency Programme (EEP) to reduce the energy use, carbon and energy bills of the school which has been running over the years.

The intervention programme achieved 11% savings in energy usage over a year. These savings were made possible through better awareness creation campaign which promoted positive behavioral change towards energy use by the users.
Results of some AMAs

- 20% electrical, 10% gas
- Lighting, controls, boiler conversion
- €55,000 per annum

- €12,000 heating and lighting
- €30,000 ‘MIC’ savings

- 20% saving on €3,000 bill
- Turning equipment off
Funding, financing and procurement
The four energy related elements of Green Public procurement

- Purchasing energy supplies
- Purchasing energy using equipment
- Purchasing energy services
- Purchasing capital projects with large projected energy spend

- [http://www.seai.ie/Your_Business/Public_Sector/Funding_Finance_Procurement/Public_Sector_Procurement_Requirements/Public_Sector_procurement_requirements.html](http://www.seai.ie/Your_Business/Public_Sector/Funding_Finance_Procurement/Public_Sector_Procurement_Requirements/Public_Sector_procurement_requirements.html)
### ACA Categories and Criteria

The ACA, as detailed in the Finance Act, covers 10 different equipment categories and 82 associated technologies. The ACA criteria are updated on a regular basis.

**If you would like to subscribe to receive updates on ACA...**

<table>
<thead>
<tr>
<th>Equipment Category</th>
<th>Minimum expenditure (for ACA incentive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Energy Management Systems (BEMS)</td>
<td>€5,000</td>
</tr>
<tr>
<td>Lighting</td>
<td>€3,000</td>
</tr>
<tr>
<td>Motors and Drives</td>
<td>€1,000</td>
</tr>
<tr>
<td>Information and Communications Technology (ICT)</td>
<td>€1,000</td>
</tr>
<tr>
<td>Heating and Electricity Provision</td>
<td>€1,000</td>
</tr>
<tr>
<td>Process and Heating, Ventilation and Air-conditioning (HVAC) Control Systems</td>
<td>€1,000</td>
</tr>
<tr>
<td>Electric and Alternative Fuel Vehicles</td>
<td>€1,000</td>
</tr>
<tr>
<td>Catering and Hospitality</td>
<td>€1,000</td>
</tr>
<tr>
<td>Electromechanical Systems</td>
<td>€1,000</td>
</tr>
<tr>
<td>Refrigeration and Cooling</td>
<td>€1,000</td>
</tr>
</tbody>
</table>

**Eligibility criteria** applicable for a particular technology vary. Contact your accountant to determine eligibility.

<table>
<thead>
<tr>
<th>Category</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Steam Systems</td>
<td>28.09.2009</td>
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<tr>
<td>Biomass Boilers</td>
<td>23.08.2011</td>
</tr>
<tr>
<td>Inverters</td>
<td>30.09.2011</td>
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<tr>
<td>Solar Thermal Collectors</td>
<td>02.09.2013</td>
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<tr>
<td>HVAC Zone Control</td>
<td>28.09.2009</td>
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<tr>
<td>Heat Exchangers</td>
<td>27.09.2010</td>
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<tr>
<td>Pumps</td>
<td>28.09.2009</td>
</tr>
<tr>
<td>Blowers</td>
<td>28.09.2009</td>
</tr>
<tr>
<td>Fans</td>
<td>28.09.2009</td>
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<tr>
<td>Commercial Dishwashers</td>
<td>18.06.2010</td>
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<tr>
<td>Commercial Laundry Dryer</td>
<td>18.06.2010</td>
</tr>
<tr>
<td>Commercial Combination Ovens</td>
<td>16.06.2010</td>
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<tr>
<td>Commercial Laundry Washer</td>
<td>23.06.2010</td>
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<tr>
<td>Water Boilers</td>
<td>04.06.2010</td>
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<td>Electrical Actuators</td>
<td>18.06.2010</td>
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<td>Extrusion Blow Moulding Machines</td>
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<tr>
<td>Injection Blow Moulding Machines</td>
<td>18.06.2010</td>
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<tr>
<td>Injection Moulding Machines</td>
<td>18.06.2010</td>
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<tr>
<td>Process Energy Management Systems</td>
<td>23.06.2010</td>
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<tr>
<td>Voltage Stabilisation</td>
<td>23.06.2010</td>
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<tr>
<td>Compressors and Condensing Units</td>
<td>23.06.2010</td>
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<tr>
<td>Condensers</td>
<td>23.06.2010</td>
</tr>
<tr>
<td>Refrigerated Display Cabinets</td>
<td>23.06.2010</td>
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<tr>
<td>Refrigeration System Controls and Monitoring</td>
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<tr>
<td>Chillers and Fluid Coolers</td>
<td>27.09.2010</td>
</tr>
<tr>
<td>Heat Pumps</td>
<td>25.07.2011</td>
</tr>
</tbody>
</table>
Purchasing energy services

• Buying a guaranteed energy saving
• If they don’t meet the saving target, until target achieved, then
  – Don’t pay them part of what their owed – Energy Performance Related Payment
  – Don’t pay them at all – Energy Performance contracting
• Standard contracts at
  www.seai.ie/Your_Business/National_Energy_Services_Framework/
• Competitive dialogue the proposed method
• Signed off by DPER, OGP, GCC, CSSO, PSC
• 11 public sector projects testing the process
• Technical Assistance – EPRP 17k, EPC 37.5k
**Energy services in more detail**

**The Framework – 4 elements**

<table>
<thead>
<tr>
<th>CLIENTS WITH FINANCIALLY VIABLE PROJECT(S)</th>
<th>ESCO</th>
<th>SEAI SUPPORTS</th>
<th>HANDBOOKS/GUIDES</th>
<th>FINANCING</th>
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</thead>
<tbody>
<tr>
<td>Energy Performance Contracting</td>
<td></td>
<td>Market development</td>
<td>Energy Performance Contracts</td>
<td>the Fund</td>
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<tr>
<td>Local Energy Supply Contracting</td>
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<td>SEAI Business Programmes</td>
<td>Energy Performance-Related Payments</td>
<td>Investment Banks</td>
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<td>Energy Performance Related Payments</td>
<td></td>
<td>Exemplar Programme</td>
<td>Local Energy Supply Contracts</td>
<td>EIB</td>
</tr>
</tbody>
</table>

11 public sector exemplar projects
**Energy Contracting – Project Development Process for success**

**Project Development Stages**

1. **Get Organised**
2. **Initial Appraisal**
3. **Detailed Appraisal**
4. **Procurement**
5. **Contract Implementation**

Decide energy contracting route
Public Sector Exemplars
€20-30m investment, €2-3m savings

- **Mayo County Council**: Retrofit of all public lights in the county (12,000) through a fully financed Energy Performance Contracting solution.
- **Dublin City Council**: Deep retrofit of four leisure centres, including CHP to be delivered through a fully financed Energy Performance Contracting solution.
- **Dublin City University**: Two projects, a car park lighting project and retrofit of the buildings in their Green Innovation campus through Local Energy Supply and Energy Performance Contract.
- **Fingal County Council**: Retrofit of up to 70% of their public lighting stock (20,250 public lights) delivered through a fully financed Energy Performance Contracting solution.
- **Irish Prison Service**: Retrofit the heating systems in the Wheatfield and Cloverhill prisons delivered through a combined EPC and LESC solution.
- **Kerry County Council**: Plans to retrofit the entire 11,500 public lights in the county through a fully financed solution.
- **Kildare and Wicklow VEC**: Retrofit of 17 schools within the expanded organisation of Kildare and Wicklow targeting mechanical and electrical services, controls and building fabric to be delivered through an Energy Performance Contracting solution.
- **Letterkenny Institute of Technology**: A biomass and heating plant retrofit to be delivered through a LESC.
- **University College Cork**: To utilise the ESCO model to strategically retrofit the electrical and mechanical facilities in a number of campus buildings.

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**Building Fabric**, **Biomass Heating**, **Public Lighting**, **Mechanical Services**, **Electrical Services**
Working on

• Issue as drafts for consultation
  – EPRP Handbook
  – LESC Handbook

• Financial
  – Establish Fund and link to framework
  – Guide to obtaining finance
  – Retscreen for ESCO project assessment

• Market Development
  – EMPI briefing
  – Briefing at Energy Show
  – So you want to be an ESCO – in development

• Run more Exemplar support programmes?
The Sustainable Energy Authority of Ireland is partly financed by Ireland’s EU Structural Funds Programme co-funded by the Irish Government and the European Union.

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