

# Ireland's Energy Agreements Programme (EAP)

PROGRAM TYPE	COUNTRY/REGION	TIMEFRAME
Energy Management	Ireland	2006, ongoing. Each agreement runs over a three-year period.

## PROGRAM SUMMARY

Ireland's voluntary agreements known the Energy Agreements Programme (EAP), run by Sustainable Energy Authority of Ireland (SEAI), aim to stimulate energy efficiency activity within the largest consumers of energy in Ireland above and beyond business-as-usual. While the EAP is voluntary, participating companies are required to implement the international energy management systems standard ISO 50001. No subsidies are provided, but during the initial three-year period of the agreement, SEAI provides technical support, networking assistance and financial support.

### Objective

To stimulate energy efficiency activity within the largest consumers of energy in Ireland above and beyond business-as-usual

### Target Group

Size: large

Industry focus: All industry

### GHG emission source covered

All energy sources

### Program Funding Source

Government of Ireland

### Total Program Funding

Figures specifically for the EAP are not available. Total funding for the Industry and Business Programme (\*1), which comprises the Large Industry Energy network (LIEN), the EAP (a sub-set of LIEN) and Small and Medium Size Enterprise (SME) programmes:

- €2,995,971 in 2010
- €5,307,885 in 2009

All administration costs directly related to programme expenditure are included in programme costs above [1].

Through the LIEN, every €1m of taxpayer money into €12m worth of energy-saving benefits in the productive business sector [2].

### Implementation Details

#### Operating Mechanism

Voluntary agreements.

As part of the EAP, enterprises enter into three-year agreements and are required to implement and maintain a certified EnMS (now ISO 50001) and complete one Special Investigation per year. Special Investigations are feasibility studies focused on significant energy uses and integrated into the EnMS through the process of identifying and registering energy efficiency opportunities. Special Investigations supplement the EnMS process and do a "deep dive" on specific technologies, equipment or processes.

In signing an Energy Agreement with SEAI, companies commit sufficient resources to obtain EnMS certification within 12 months (maximum 24 months) and then use the EnMS to maximise energy savings in both the short and long term. The main incentive for participating in the programme is the support provided by SEAI (see Program Offerings, below).

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## Energy management System

EnMS Standard: now ISO 50001 (previously EN 16001 and the national standard IS 393)

## Program Offerings for Industry

The EAP is a subset of the Large Industry Energy Network (LIEN), which aims to promote energy management, energy auditing, best practice dissemination and information sharing.

EnMS implementation within the EAP is underpinned by comprehensive and targeted implementation support. Support systems include:

- **Mentoring and technical expertise:** provided through Agreements Support Managers. The Support Managers conduct site visits, provide energy management advice, respond to queries, and can also assist with data collection and administration of funding.
- **Special Investigations**, which are a cornerstone of the EAP, take a step beyond routine energy efficiency assessments and focus on significant energy uses. SEAI continually develops processes, methodologies, or sector-specific approaches and projects to ensure continued effectiveness in uncovering new energy efficiency opportunities. Successful actions and approaches are then analysed, standardised and disseminated to the LIEN. In some cases, funding support for special investigations is provided. (\*2)
- **Special project initiatives** are planned each year to help enterprises undertake activities on significant energy end-uses, such as a specific technology user, a new methodology or a specific sector. SEAI works to ensure that all project activities contribute to the development of a body of knowledge that can be disseminated so that they can be replicated and standardised.
- **Networking and support activities:** embedded in the LIEN. They provide a forum for enterprises to share experiences and knowledge. Every year a number of workshops, site visits and conferences are organized. SEAI provides EAP members with a range of information support, including statistics and reports, case studies, benchmarking data and special tools, e.g. the Energy MAP tool to facilitate energy assessments.
- **Training:** SEAI also provides training courses dependent on needs of the members until the training can be provided commercially.

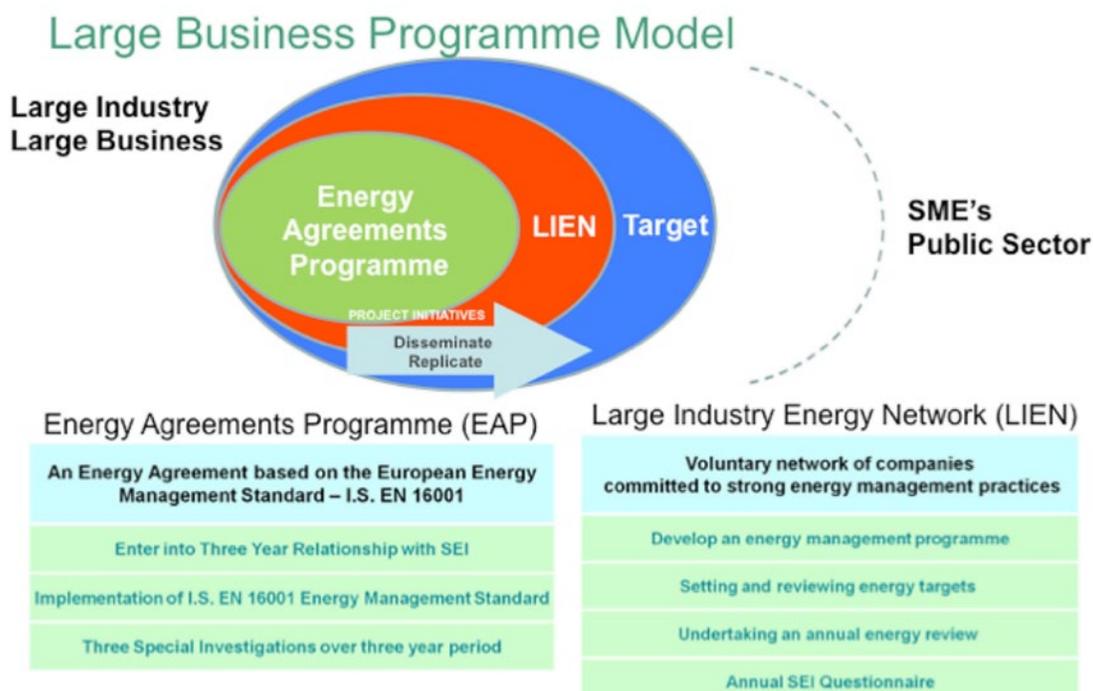
## Supervising Agency

Sustainable Energy Authority of Ireland (SEAI)

## Implementing Agency

Sustainable Energy Authority of Ireland (SEAI)

TABLE 1: Program Flow Chart



# Ireland's Energy Agreements Programme (EAP)

## Implementing Agency Type

Public Institution or Agency

## M&V requirements on industry

The certification process of compliance with EnMS provides a structure that indirectly controls compliance to the EAP at no direct cost or additional management burden on SEAI. It is assumed that continued compliance with the EnMS will cover these requirements by default.

The energy performance of the LIEN is reported on a yearly basis, using detailed energy data that is collected from members annually. Energy performance indicators are used to evaluate the performance of each enterprise.

## Evaluation of Program

To assess energy savings or increases in energy use for LIEN as a whole, administrators use a method based on relative change of energy intensity of LIEN members from one year to the next. Increases or decreases are calculated for each individual enterprise and then added together. Because this approach does not allow for differentiation between changes in intensity due to energy efficiency projects and changes spurred by other factors, complementary methods are used. Energy efficiency project data is collected, providing a "bottom-up" measurement of energy avoided due to the project.

SEAI publishes an Annual Report for the LIEN program with key energy performance indicators for the program as a whole.

## Impacts and Results

**Note:** figures are available in an aggregated form for the LIEN, (which comprises EAP companies), rather than for EAP companies only.

### Metric

The energy performance improvement of the LIEN was 5.3% from 2009 to 2010, providing an energy avoidance equivalent of €45 million in 2010.

### Target/goal

No quantified goal. Improve energy performance beyond business-as-usual levels.

### Analytic base for target (or target setting mechanism)

No specific energy-saving or greenhouse gas reduction targets are set; rather the programme relies on the combination of

EnMS implementation, certification and the impact of Special Investigations to identify savings relevant to each business.

## Savings (recent year)

1 300 GWh in 2010 (total for LIEN). Members achieve successive annual energy reductions of about 2 to 3%. A 7% performance variation between LIEN-only and EAP companies highlighting the higher performance of companies committed to the energy management system approach

## Savings (program total)

4 150 GWh since 1995 (total for LIEN). Long-term members improved energy efficiency by 33% between 1995 and 2010.

## Savings (Share of overall demand)

Energy saved in 2010 was 1 300 GWh, representing 5.1% of the total 25,500 LIEN Total Primary Energy Consumption in 2010 (GWh) (total for LIEN).

## Average unit cost of energy saved

Cost-effectiveness has been estimated to be high; for each euro of taxpayer money spent on LIEN (of which EAP is a subset) energy savings benefits of EUR 12 are attained in the productive business sector.

## Non-energy benefits (co-benefits)

Yes. LIEN members have reduced operating costs and increase cost-competitiveness, while also improving other business processes. The LIEN work on energy efficiency has helped to stimulate the emergence of the professional energy manager and the development of energy services, leading to new business opportunities in Ireland and abroad. Non-energy benefits(\*3) are gained through further improvements in process efficiency, productivity and product quality [2].

## Other Information

### Footnotes

(\*1) This programme supports efforts across all business sectors to improve energy efficiency and competitiveness through networks and services that promote structured energy management to world class standards, while developing markets for energy efficiency advice and services. The programme was closed to new applications in 2010

(\*2) As part of these initiatives, a range of methodologies has been developed including, for example, the Energy-Efficient Design (EED) methodology, and Value Stream Mapping with Energy (VSM<sub>E</sub>).

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(\*3) In an energy efficiency context typically synonymous with the term co-benefit, meaning benefits that are the result of energy efficiency measures, e.g. product quality improvements, improved work conditions, enhanced energy security. NEBs can be quantified on an enterprise or programme level.

## References and Links

[1] 2010 SEAI Annual Report Available at: [http://www.seai.ie/Publications/SEAI\\_Publications/SEAI\\_Annual\\_report\\_2010.pdf](http://www.seai.ie/Publications/SEAI_Publications/SEAI_Annual_report_2010.pdf)

[2] 2010 LIEN Annual report. Available at: [http://www.seai.ie/Your\\_Business/Large\\_Energy\\_Users/LIEN/LIEN\\_Reports/LIEN\\_Annual\\_Report\\_2010.pdf](http://www.seai.ie/Your_Business/Large_Energy_Users/LIEN/LIEN_Reports/LIEN_Annual_Report_2010.pdf) Energy Agreements Programme. Available at: [http://www.seai.ie/Your\\_Business/Large\\_Energy\\_Users/Energy\\_Agreements\\_Programme/](http://www.seai.ie/Your_Business/Large_Energy_Users/Energy_Agreements_Programme/)

[Agreements\\_Programme/](http://www.seai.ie/Your_Business/Large_Energy_Users/Energy_Agreements_Programme/)

## Useful reports

Reinaud, J., Goldberg A., & Rozite, V.(2012). Energy Management Programmes for Industry – Gaining though saving. IEA & IIP, [http://iipnetwork.org/sites/iipnetwork.org/files/file\\_attachments/resources/PolicyPathway\\_IEAIIIP.pdf](http://iipnetwork.org/sites/iipnetwork.org/files/file_attachments/resources/PolicyPathway_IEAIIIP.pdf)

Goldberg and Reinaud,2012. Promoting Energy Management Systems through Energy Efficiency Programmes, Incentives and Support – Lessons Learnt from Evaluations in Denmark, Ireland and Sweden. Paper presented to IEPEC, June 2012. [http://www.iipnetwork.org/sites/iipnetwork.org/files/file\\_attachments/resources/2012-IEPEC-Session19IndustryEnMPs.pdf](http://www.iipnetwork.org/sites/iipnetwork.org/files/file_attachments/resources/2012-IEPEC-Session19IndustryEnMPs.pdf)