

Partner Questionnaire

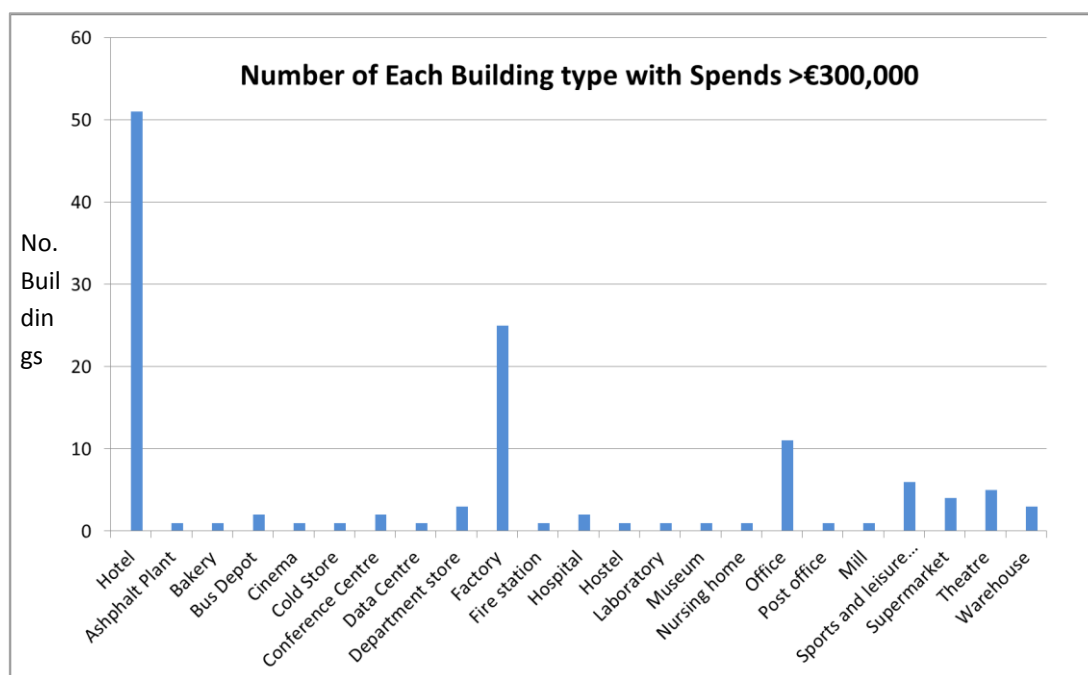
1. How can EPC affect local level (SEAPs and other energy plans) and National level energy efficiency targets?

Answer: Dublin Example

In Ireland, the total primary energy savings potential in the commercial sector is 6.0 TWh, corresponding to around 35 % of the primary energy demand in this sector in 2013, which is estimated to be 17 TWh. The largest savings potential among the technical measures in the commercial buildings sector relates to the installation of energy efficient lighting with lighting controls (1.1 TWh) and heat pumps (0.8 TWh), retrofit with roof insulation (0.7 TWh) and energy efficient glazing (0.7 TWh), and installation of more efficient air-conditioning (0.5 TWh).¹

There are over 20,000 commercial and public sector buildings in the Dublin City region, which together account for 27% of the city's energy consumption. These buildings spend approximately €298 million annually on energy needs, much of which ends up paying for imported fossil fuels.

In terms of EPC, there are 128 commercial and public sector buildings identified as having energy costs above €300,000. These are predominantly made up of hotels, factories and offices. There are some public sector buildings included in this list, such as fire stations, hospitals, museums, and post offices. If these 128 buildings alone were to achieve an average 20% energy savings, this would amount to annual savings of approximately 85GWh of gas and 15GWh of electricity.



From the buildings identified as having spends over €300,000, 9 spend more than €1 million per year on energy. There are 346 buildings with spends between €100,000 and €300,000, meaning, if grouped to become a potential EPC candidate, there is potential for over 100 additional EPC projects in the commercial sector. In terms of Dublin City municipality's own building stock, the highest energy spend is nearly €600,000 per year in the head office building. There are significant energy spends in the municipality's swimming pools and leisure centres, all having energy spends in excess of €100,000 annually. There are 71 other Dublin City municipality buildings with spends between

¹ *Unlocking the Energy Efficiency Opportunity (SEAI, June 2015)*

€20,000 and €100,000. Altogether, there is a potential for approximately 30 EPC projects within the council building stock if buildings were grouped together into contracts.

As can be seen, there is a large potential market for EPC across the city, and the cost and energy savings if these were achieved would have a significant effect on national level energy efficiency targets.

2. Discuss the most prevalent barriers you have experienced whilst implementing EPC in your region/city, organising your answers under the following headings:

- **Financial Barriers**

There are also a few different options available in Ireland for financing EPC projects. The first is self financing, the second is ESCO financing and the third is the National Energy Efficiency fund, however the fund is primarily interested in larger projects (€1million and up). This proved a barrier to our project as initially our estimated capital spend was in the region of €500k. For smaller projects external financing can be difficult to access as the banking sector in general has not engaged with the concept of guaranteed energy performance as a method guaranteeing repayments of loans. This means that small projects will either have to be pooled, self financed and/or ESCO financed. This may be a significant barrier as the majority of the potential EPC projects in the Public Sector in Ireland will have a capital spend below €1million.

- **Administrative Barriers**

The administration of the Dublin EPC project was the most challenging part, but primarily because it is the first EPC project the City Council has undertaken. This project had a steep learning curve for all involved. This process was made considerably by national support via the National Energy Services Framework. This framework provided sample documents for each stage of the project including a sample EPC contract. In order to “roadtest” this framework the SEAI selected 10 exemplar projects of which the Dublin City Council EPC project was one. The framework has worked well to date.

- **Policy/regulation Barriers**

As motioned previously EPC project development has benefitted greatly from considerable national political and administrative support via the National Energy Services Framework and the National Energy Efficiency Fund. However the number of projects development as a result of this national support is still very few. Of the 10 public sector exemplar projects selected two years ago, all are still underdevelopment. The Dublin City EPC project is one of the more advanced and aims to have a contract signed early in the New Year.

- **Knowledge Barriers**

The main barrier to EPC in Ireland is knowledge. There is a lack of awareness of what EPC is and what it is not. The general first impression of EPC in Ireland is that it is an alternative method of financing a project and not that it is method of guaranteeing energy performance over the lifetime of the contract. Financing as a concept is widely understood and is highly visible and quantifiable. Energy performance in comparison is much more enigmatic. This leads to people latching on to the financing element of EPC and thus missing the real purpose of EPC. The most significant proportion of time spent developing the Dublin EPC project was spent explaining EPC and its core purpose of guaranteed energy savings.

- **Other Barriers**

The other main barrier to EPC development in Ireland is the lack of Irish examples of EPC projects in Ireland. In order to develop the EPC market in Ireland we need local examples. This will in turn help get over the knowledge barrier.

3. In relation to the barriers outlined, please suggest your preferred solution or policy recommendation.

As outlined the main barrier concerning EPC in Ireland is knowledge. The continued promotion of EPC and the continued support of project development are vital in order to promote EPC as a viable alternative to the traditional approach to energy conservation projects. Local examples of successfully completed EPC projects are necessary.

The banking sector also needs to be educated on EPC and the benefits of performance guarantees and the possibility of accurate measurement through measurement and verification plans.

4. Discuss the most prevalent success factors you have experienced whilst implementing EPC in your region/city, organising your answers under the following headings:

- **Financial**

Finance proved to be less of a barrier than first anticipated. This may be due to the relatively low costs of works (approx €800,000) when compared to other large construction projects. In the case of Dublin City EPC project a mixture of self and ESCO financing is being considered where the City Council will contribute a fixed sum towards the overall capital spends with the ESCO financing the remainder. This option was discussed with the market and received a favourable reaction.

- **Administrative**

The EPC project undertaken by Codema and DCC as part of the EESI2020 project is the first such project for DCC and one of the first EPC projects in the public sector in Ireland. While the administration was a challenge it has developed successfully to date both due to the support received from the government and SEAI via the National Energy Services Framework, the EESI2020 partnership and through the active project management and continued engagement by Codema and DCC.

- **Policy/regulation**

The National Energy Services Framework and the support for the concept of EPC at a national level is key to the development of EPC projects on the ground. Governmental support is vital for project development in the public sector. It is key in the initial meetings to help convince the various stakeholders that EPC should be considered in a serious way.

- **Knowledge**

The EESI2020 project has been a significant help in spreading the word of EPC in Ireland. Through this project Codema have organised two national seminars, both of which were well attended and supported by the key stakeholders. Further events of this nature are needed.

- **Other**

5. In relation to the success factors outlined, please elaborate on why these factors were of particular importance.

Answer: Dublin Example

The key factors for EPC project development in Ireland has been the clear message of support at national level delivered via the National Energy Services Framework. This gave the various stakeholders involved the confidence to back the project.