

 OPINION

Increasing the flow of investment into energy efficiency



Dr Steven Fawkes
CEng FEI is a Senior
Advisor to the
Investor Confidence
Project, europe.
eeperformance.org

Today's barriers to success in energy efficiency are to do with finance, contracts and verification, rather than any technical issues. Steven Fawkes CEng FEI takes a look.

The last few years have seen a major shift in understanding of the value of energy efficiency and its potential for mitigating many of the energy problems we face, including improving energy security and reducing environmental impacts. It is now acknowledged that there is huge potential for improving energy efficiency across all sectors of the economy with good economic returns without subsidies, and that investing in efficiency brings with it many co-benefits both to the host and society as a whole – benefits that only now are starting to be valued.

The European Union has now put 'efficiency first' in its energy policy, something that the UK, which is currently undergoing a major shift in energy policy, has yet to really adopt. The challenge for the efficiency industry, and others with an interest in the many benefits that would come from a more efficient future, is twofold; first to improve the quality of energy management, and second to increase the flow of investment into large-scale efficiency projects.

The former will be greatly helped by promoting ISO 50001, which embeds systematic energy management into everyday business processes. The latter objective is more complex, with problems to solve in both the efficiency industry and the finance sector.

Building investor confidence

The Energy Efficiency Financial Institutions Group (EEFIG), with representatives from about 100 banks, investors and other stakeholders convened by the European Commission and the

United Nations Environment Programme Finance Initiative, identified a number of barriers; a major one being lack of standardisation. This lack, coupled with the small size of energy efficiency projects, increases transaction costs, increases performance risk, makes aggregation difficult and inhibits building human capacity in the sector.

This particular problem is the focus of the Investor Confidence Project, funded by Horizon 2020, which is introducing protocols for developing and documenting projects and working towards standards for 'Investor Ready Energy Efficiency.'

Another, related project funded by the European Commission is building a project performance database and agreeing a common underwriting framework in partnership with the financial sector. The database will for the first time allow investors to see the results of actual projects, thus allowing an actuarial approach to underwriting.

These initiatives will go a long way to making energy efficiency a more investable asset class. Several large investors and lenders, some who are now finding renewable energy projects less attractive due to changes in subsidy levels, are actively developing an interest in investing in efficiency.

At the same time, several pioneering funds that have already been set up to invest in efficiency are having real trouble deploying capital due to a shortage of bankable projects. To address this problem and the growing interest from the financial sector, the efficiency sector and energy users

need to rethink how they develop projects. They need to adopt standardised processes such as those of the Investor Confidence Project and they also need to think on a big scale.

For large property owners in the private and public sectors this means taking a portfolio approach rather than simply developing projects in one building at a time. This will require development time and capital, and probably a different kind of developer and developer-client relationship. Developers cannot risk the cost of developing large-scale projects without a high degree of certainty they will proceed.

Measurement and verification

Other issues that need to be addressed include the fact that, despite its multiple benefits, energy efficiency is dull and saving money is never as attractive as generating revenue. Rewards for efficiency projects and programmes are based on projected performance using predictive models (some very poor) rather than actual performance. Government programmes have relied on mandates with no real accountability for producing savings; even in the private sector energy savings are rarely measured and compared to predictions.

In programmes like ECO and the Green Deal, performance is regulated through cumbersome quality assurance processes rather than measurement of real results. We need to change this paradigm. With modern IT and advances in measurement and verification we can now move towards a world where energy efficiency is measured just like energy, and project delivery companies are accountable and rewarded for real performance.

Doing so will align incentives and enable the development of new financing models analogous to power purchase agreements which allow the financing of energy supply projects.

If we can successfully embed developments such as the Investor Confidence Project protocols, the open data performance database and moves towards measured energy efficiency into the efficiency and finance sectors, we will see significant growth in investment flowing into efficiency over the next five to ten years, bringing it with many benefits to project hosts, investors, the wider economy and the environment. ●

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