



**EXECUTIVE SUMMARY**

**Norfolk Skills Economy Project**

**Energy Skills Needs in Norfolk & Suffolk**

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**For: Shaping Norfolk's Future**

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## EXECUTIVE SUMMARY

This report sets out to provide a fresh analysis of skills needs in the energy sector in New Anglia. It builds on work already carried out by Nautilus and Douglas Westward, filling in gaps where appropriate and challenging assumptions where necessary. Inevitably the report deals at length with the question of a skills hub for East Anglia – What form should it take? What are the benefits of different approaches? What do partners and wider stakeholders feel about different options? This is deliberately intended to inform opinion, and bring greater breadth to the debate.

### Definitions

What do we mean by an energy sector? It cuts across several other sectors including engineering; mining; utilities and logistics. However, energy on its own, does not describe a product, process or activity; it is more a group of sectors which collectively can be said to make up the energy supply and demand chain. Energy is now promoted as a sector which has a distinct set of skills characteristics. But if we scratch beneath the surface, one quickly finds the skills required for the sector are actually the traditional engineering and other skills which have always been important to a production oriented economy.

### Meetings & telephone Research

In preparation for this report meetings were held with a range of key stakeholders in the sector including FE colleges; independent providers; sector based skills agencies; local authorities and employers. 40 telephone interviews were also undertaken with engineering/energy companies across the two counties:

The intention was to contact a wide variety of companies from across the New Anglia area in order to get a balanced view, representative of the sector as a whole.

#### Snapshot of telephone responses carried out in February:

- 40% of companies had heard of Hethel Engineering Centre but 85% had never visited.
- 5% of companies had heard of Skills for Energy.
- 30% of companies thought a new pipe fitting in the course could be useful but when asked if their company would commit to a course there were only 2 positive responses.
- One third of companies expected to be involved in new energy contracts in the region.
- Almost 30% of companies expected to grow in the coming years.

### New Anglia

The two counties of Norfolk and Suffolk are key players in the UK energy economy, with around 11,000 businesses involved in supply chain activity and an energy cluster of some 400 businesses engaged in the marine energy supply chain in the Great Yarmouth/ Lowestoft area alone.

## Essex

Essex needs to be taken into account when looking at the energy sector profile in the region. Leaving out Essex may make good sense in terms of the new LEP area but the county is an essential player in energy and companies are unlikely to be impressed by an arbitrary county cut off point. A three counties approach to energy skills is increasingly being proposed when it comes to interventions in the skills market place.

## Skills Shortages

Evidently, there is a need to be precise about the exact type of labour shortages being experienced by companies. Most labour shortages are short lived and in the turbulence of economic cycles, a skilled shortage can easily become an over supply. So one must treat with some caution the 'call to arms' sometimes expressed by skills agencies and employers.

Forecasting supply and demand of skilled labour is difficult to do in a stable market. Anticipating the skills landscape in a volatile economy and within a new growth sector such as renewable energy is much more difficult.

However it is worth considering that 80% of the training required for an individual working in the energy sector can be classed as generic engineering, either gained before entering the workplace (at HE or FE), or as part of CPD, for those already in work (e.g. project management training). 20% of an individual's skills profile can be thought of as sub-sector specific – addressing particular gaps in knowledge or competence specific to the job required. In this context, there is little danger in creating an oversupply of skilled labour for the energy sector since the bulk of the learning (the 80% component) will fit into the generic engineering skills category and will therefore be transferable between sectors – and therefore relevant to a whole range of technical jobs in the UK labour market.

## Skills Gaps

One of the main reasons given for a new energy skills centre is that it will provide courses which are not currently available in the region. Leaving aside numbers of delegates required for the moment, there is a simple question to ask: How many of these courses could be delivered by existing training providers? The answer is most if not all of them – as long as certain equipment was made available. Indeed some providers have suggested that more than half of the courses could be delivered now if there were sufficient numbers to make it economic.

At the moment companies send their employees to training facilities out of the region (e.g. West Midlands; south coast; Humberside; Scotland). But local training providers are adamant that they could put on courses in the region if the number of delegates makes it economical. This isn't a poor excuse for not running courses – its simple business sense. No provider should be putting on courses at a loss.

Creating a new skills centre is not in itself, a solution to this problem. A new skills centre could merely dilute provision – and lead to under-usage of existing resources. If quality of provision is the main issue then this can be addressed through other means than the creation of new physical space. Revolutionising delivery so that

existing resources are optimised would be a much cheaper and more effective option to consider. In short, there seems to be a misunderstanding between the need to create training opportunities with the need for a new skills centre.

#### Is imported skilled labour necessarily bad for a region?

On one level, the importation of skilled labour into a region is a good thing. London is a typical example of a region which sucks in labour from all over the world in order to meet its needs. This is not to say that New Anglia should do nothing about it. It is vital for the region to grow its own skilled labour – and one of the main ways to achieve that is through apprenticeships.

#### Apprenticeships

The challenge to train people ‘just in time’ for industry requirements is a perpetual conundrum. It requires employers to take risks and invest in future resource needs – and the best way of achieving this is through apprenticeships – a point picked up by Nautilus Associates.

#### A New Skills Centre?

This reports puts forward the arguments for and against a new physical centre for energy skills. Whilst there are several good reasons in favour of a single site centre, the overwhelming evidence points to a hub and spoke network involving existing providers in the region.

However leaving aside the case for running apprenticeships from an industry endorsed independent centre, there may be other arguments for a new training facility. It could house new specialist equipment which may be too large for a college to accommodate - and of course the equipment would be ‘independent’ – available for any training provider to use to meet the demand of employers. This last point is particularly important because one of the drivers for a new centre is employer responsiveness. In this line of thinking, only an independent operator could deliver true industry standard training by tendering out courses to get the best provider – or by simply acting as a landlord – hiring out facilities (classrooms, equipment etc..) to the training provider market.

The Nautilus report suggests that apprenticeships would play a key part in the new proposed skills centre but immediately this presents a difficulty for further education which is charged with expanding the apprenticeship service across the two counties, and of developing new relationships with employers in the region. There is surely a serious danger of ‘over provision’ crowding out the market and driving down quality as vocational providers struggle to cope with dwindling numbers. If there is a case for more apprenticeships in the sector, surely there are adequate supply side resources to meet this need, especially considering the new UTC in Norwich, the East Consortium Engineering Centre in Great Yarmouth and Leiston High School aspirant ‘rural UTC’ for the Sizewell C labour market. If FE is ‘unresponsive’ then there will be private providers who can step into to take up the slack. The apparent ‘apprenticeship shortage’ does not, on its own warrant a new sector specific training centre.

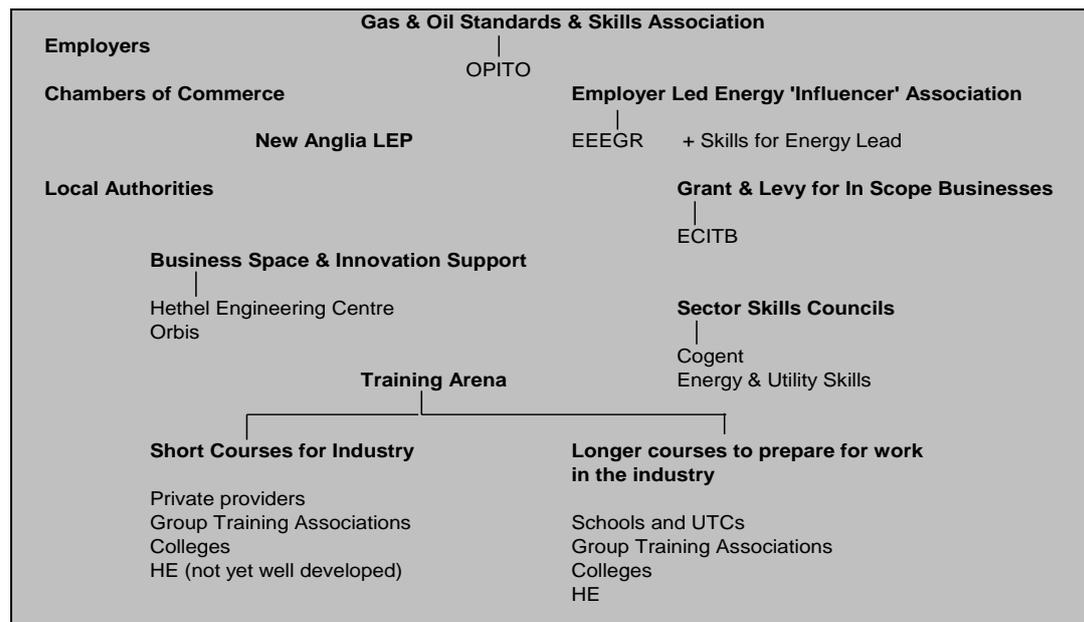
The key question is how to maximise the take up of local talent as job opportunities become available. A new physical centre may increase the chances of that happening but it is surely not a necessary condition. Of more importance, for example, would be to work with companies to identify forthcoming skills shortages and then to broker these precise skills needs out to the most appropriate training provider so that skilled labour is provided 'just in time' for the employer. Through ESF funding, this kind of precision training – could be subsidised (especially to the SME market) and could become an attractive proposition for (SME) employers. This is something being looked at by the 3 Counties ESF Energy proposal.

There is a case for the installation of some very large equipment for training operations such as bolt tightening – and this could be made available to all training providers in the area. There may even be some public sector support for such equipment to be purchased.

The Scottish Model – A virtual Network

IESTA is the Scottish energy skills centre based close to Aberdeen. IESTA presents a “training capability matrix” involving 22 different training providers including FE, HE and the private sector, across 85 separate vocational disciplines ( ranging from accounting and auditing for the sector, to oil spills management and well control). This brokerage model is not dependent upon a physical centre and indeed many of the services offered are delivered on the premises of the appropriate providers rather than the IESTA skills centre which is small and not suitable for most types of training. This is a model which would suit East Anglia very well.

If a hub and spoke model is to work it certainly needs the support and involvement of all the key players in New Anglia. This is depicted in the diagram below.



### Energy Skills Vision in East Anglia

The report sets out a vision for energy skills based on existing resources and partnership working. There is much to do to support the sector – and it may be both cost effective and of greater benefit to stakeholders and delivery partners in the two counties to look at dynamic solutions to skills in the sector rather than an “all eggs in one basket” approach.

If a new physical training and innovation centre for energy skills is not possible in this new post-recession economy, somewhere between a “do nothing” and a “do all” scenario there may be an alternative which delivers the main objectives of a “skills for energy” strategy without the costs of major infrastructure development. What might this alternative look like?

### A 10 Point Plan

1. Encourage the expansion of Lowestoft College’s commercial portfolio and development of Great Yarmouth College’s energy skills portfolio.
2. Priming the energy skills pump: Champion the development of City College’s new University Technical College to prioritise energy skills for young people, and support the coastal skills initiatives proposed by Leiston High School and East Consortium.
3. Recognition of Hethel Engineering Centre as an important catalyst for supply chain innovation for the sector.
4. Importance of involving the private sector providers – e.g. PETANS;
5. Expansion and development of the GTA model building on the work of EAGIT
6. Developing skills ‘brand’ awareness through OPITO and ECITB
7. Bringing together intermediaries (ECITB, OPITO EUSkills, Cogent ect..) to discuss ways of working together to achieve greater cooperation and synergy. As part of this, encourage Lowestoft College to gain accreditation to deliver the OPITO apprenticeship.
8. Encouraging EEEGR to champion a virtual hub model through the innovative Skills for Energy initiative.
9. Working with EWEG to deliver supply chain innovations across the industry.
10. Develop an energy apprenticeship charter with buy in from industry; small businesses; intermediaries and training providers, in order to provide the content; level of service and appropriate facilities for new generations of apprenticeships in the two counties.

In considering the way forward for skilling up local people for the energy sector in New Anglia, there is a need to differentiate between the different target audiences. These can usefully be divided into several categories: preparing school students for FE or HE engineering training; delivering pre-work engineering qualifications at FE or HE; and delivering CPD, vocational update courses; and other short courses for people already working in the sector. A fourth category is a hybrid made up of the last two and includes longer professional courses undertaken part-time by employees in the industry looking to improve their career prospects or transfer to a new sector.

These four categories all require different approaches and are unlikely to be served by a single solution. This report identifies a range of initiatives which, together could dramatically alter the skills landscape for the energy sector. The report recommends several associated initiatives to be undertaken in conjunction with the skills work. These include: raising the profile for the sector through a branding exercise possibly using a name such as “Skills for Energy” as a mark of energy training quality in the region; Encouraging greater SME involvement through innovative projects such as the EWEG wind turbine project are also an essential part of the sectoral mix; and developing further links with Hethel Engineering Centre and the two universities UEA & UCS are equally important.

By addressing skills, profile and innovation all at the same time, New Anglia could make a significant mark for energy in the region, ensuring that local resources are developed to match the industry investments being made in nuclear, wind, oil and gas.