

Spalding Energy looks to expand

The owner of Spalding Energy is proposing an expansion of the current plant, with a £500 million investment to generate much-needed power for the country.

Within the next four years, it is expected that consumer demand for electricity will begin to outstrip supply. To help meet this urgent need for more electricity, InterGen is proposing an expansion of its existing Spalding Energy plant.

“There is an urgent need to generate more electricity as older power stations are being closed down and demand continues to grow. We have been operating successfully here in Spalding for more than four years and we have the ideal location for an expansion. There is industrial land available and much of the infrastructure is already in place. We are delighted to make this investment proposal and look forward to forging an even stronger relationship with the local community,” Station Manager Paul Hanson said.

Clean-burning natural gas will be the fuel for the new expanded 900 MW plant and modern equipment and technology will be employed to control emissions. It will, like the existing plant, be designed to be very quiet and employ the very latest sound-proofing technology.

Spalding Energy is already one of the newest, most efficient power stations in the UK and this expansion will make the entire development one of the most efficient and environmentally advanced power stations in the world.

The expansion will effectively double the size of the existing West Marsh Road plant, together generating enough electricity for approximately two million homes. It will occupy 20 acres of land that is designated for industrial development.

In addition to providing much-needed power for the UK, the expansion will bring several local benefits:

- During the two-year construction period, approximately 600 construction jobs will be created.
- Up to 20 permanent skilled jobs will be created during the operational phase.
- A variety of local supplier and service businesses will be utilised in support of construction and operations.
- Support for local economic development initiatives and community projects.



“There is an urgent need to generate more electricity as older plants are being closed down”



Station Manager Paul Hanson

PLANNING AND DESIGN PHASE

Currently, the expanded plant is still in its early planning and design phase. The planning application for the expansion will be submitted soon to the Government’s newly formed Department of Energy and Climate Change (DECC), that will consult with South Holland District Council, Lincolnshire County Council, members of the public and a range of other organisations before reaching a decision.

A key part of the application will be the comprehensive Environmental Statement, running to several volumes and covering all aspects of the development in depth. Once completed, this will be available for the public to study at South Holland District Council’s planning department.

Additional project elements will likely include a new overhead transmission line and gas pipeline. National Grid, which operates the UK’s network, will be responsible for deciding the final route for the transmission line. A separate planning application will be submitted for the gas pipeline.



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Energy for the future

A look at the proposed expansion



■ Current view of Spalding Energy Power Station



■ Illustrative view of expanded Spalding Energy Power Station

EXPANSION FACTS

Project summary

The proposed new 900 MW plant, which will occupy 20 acres of land that is designated for industrial development, will effectively double the size of the existing plant, together generating enough electricity for approximately two million households.

Environment

Clean-burning natural gas will be the fuel for the new plant and modern equipment and technology will be employed to control emissions, which will largely consist of water vapour, carbon dioxide and small levels of other gases. The station will produce 50% less carbon dioxide than a conventional coal station with around 75% less oxides of nitrogen and virtually no sulphur dioxide. Gas-fired power stations do not emit odours from their processes and all aspects of the environmental performance will be monitored by the relevant authorities. The expansion, like the existing plant, will be designed to be very quiet and employ the very latest sound-proofing technology.

Grid connection

The electricity transmission company, National Grid, has indicated that a new overhead transmission line, with additional pylons, will be required. This will connect to the national transmission line north east of the site, and a separate application will be submitted by National Grid.



Appearance

The technology aspects of the expansion will be very similar to those of the existing plant. All major generating equipment will be located inside an acoustic turbine hall, the cooling arrangement will be similar, and there will be two stacks. The building will be around the same height, but in a slightly different layout to reflect the shape of the available site. Photomontages will be available as plans progress to give an indication of the appearance from various viewpoints.

Next steps

Once local consultations have taken place, Spalding Energy will submit an application to the Department of Energy and Climate Change (DECC). This will be accompanied by a comprehensive Environmental Statement on all aspects of the development. DECC will consult with South Holland District Council, Lincolnshire County Council, members of the public and a range of other organisations before reaching a decision.

UK ENERGY SCENE



Energy

The UK's electricity supplies have dwindled in recent years as coal-fired plants have closed due to age and poor environmental performance. By about 2012-2015, it is estimated that there will be insufficient electricity generated to meet our needs, let alone provide adequate back-up capacity to meet sudden surges in demand. It is therefore a matter of urgent priority that this shortfall is addressed.



Gas and climate change

The Government believes that renewable sources (wind, solar, tidal, wave, biofuels, etc) could provide up to 20% of our electricity needs by 2020. But this still leaves 80% to be sourced from more conventional fuels such as coal and gas. Gas is the cleanest way to generate electricity from fossil fuels – it is much cleaner and more efficient than coal, with 50% fewer carbon dioxide emissions and 50% more efficient than coal.



Carbon capture

Carbon is emitted when any fuel is burned, with the largest sources being cars, lorries and fossil-fuelled power stations. Many measures are aiming to control emissions and increase efficiency. Carbon capture and storage (CCS) technology is in the early stages of development, but would allow carbon dioxide to be separated, liquified and stored. Methods of CCS are now in the process of being researched and tested by a number of energy companies worldwide.

The EU and UK Government, meanwhile, are currently considering regulations that could require carbon-emitting producers to incorporate the technology if it proves to be feasible and economically viable. It is envisaged that depleted oil and gas fields could be used offshore for CCS, while underground storage options, possibly geological formations or man-made structures, may be used onshore. InterGen will ensure that its expansion plans are able to comply with any Government regulations on CCS.



Key independent power player in the UK



INTERGEN

InterGen is the UK's largest independent gas-fired power producer, with three plants that provide 6% of the country's average demand. Its gas-fired power plants are among the cleanest and most technologically advanced in the world. Its other power stations are in Runcorn, Cheshire, and Coryton, Essex.

Both are similar in output to Spalding, and were constructed in the 1990s. InterGen, formed in the US 12 years ago, is a global power generation company with 12 operating power plants representing 5,803 MW of capacity. The company has projects operating or in active development in the UK, the Philippines, Mexico, Australia, the Netherlands and Singapore. Since its formation, InterGen has developed more than 16,000 MW of generation capacity in 10 countries across 6 continents.

Spalding Energy and the community

A boost to the local economy and an investment in the community

If consent is granted, Spalding Energy will hope to play an even more active role in the community, becoming involved in a wider range of activities and providing additional funds for economic benefits.

In terms of financial value alone, the power station has contributed significantly to the local economy since operations started in 2004. This covers community activities, donations and sponsorships, spending with local suppliers, spending by contractors and contributions to economic development initiatives.

The expansion will include the following local benefits:

- Up to 600 construction jobs over a two-year period
- Contracts for local businesses, both during construction and operations
- Up to 20 permanent skilled jobs
- Support for local economic development initiatives and community projects.

The Spalding Energy team enjoys being a part of various local activities and initiatives ...

Support for the neighbourhood



■ Michelle and technician Trevor with Lincolnshire's road safety vehicle

Spalding Energy supports a range of initiatives, aiming to make a positive contribution to the local community and build a dialogue with our neighbours.

Spalding Energy's partnerships span a range of activities, including education, the local economy, environmental issues, sport, tourism and road safety. Community Liaison Officer Michelle Bedford said: "We're here for the long term and are keen to ensure Spalding continues to thrive as a great place to live and work."



Apprentice programme

The UK power industry is facing a growing skills shortage. In a recent survey, the Institution of Engineering and Technology found that businesses are turning to countries such as India, China and South Africa to plug the gaps.

Spalding Energy's apprenticeship programme, one of the plant's many sustainable development initiatives, offers a rare opportunity for technical training and experience in the power industry.

Apprentice Tom Keyworth (above) said: "I'm constantly learning from the people around me, finding out what I am good at and getting the chance to improve my skills. You can only learn so much in a training centre, so the work experience here is invaluable for me."

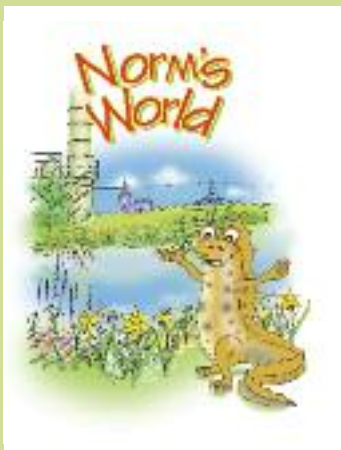
Tom and other apprentices divide their time between Spalding and a training facility in Nottinghamshire.

"We are confident Tom will receive training of the highest calibre and we remain committed to programmes and partnerships like this one to tackle the skills shortage in our industry," said Station Manager Paul Hanson. Recruitment for the programme will begin again in spring 2009.

Community liaison meetings

Spalding Energy's operational team keeps in touch through its Community Liaison Group, which was formed before the existing power station was built as a means to address any issues that might affect local people. The group met frequently during the construction, forming a sub-committee to decide on a colour scheme, and continues to meet seven years later. Membership consists of residents, county councillors, district councillors, parish councillors, other organisations and representatives from the operational team. For more details, call Freephone line 0800 1695290.

Encouraging tomorrow's bright sparks



Youngsters at primary schools around Spalding have been enjoying a fun introduction to electricity thanks to Spalding Energy's educational workshops. The workshops were launched in 2004, with 16 schools now involved in a range of hands-on activities designed around the national curriculum.

Education co-ordinator David Evans said: "The workshops give children an opportunity to make electrical circuits, build mini-generators and discover how electricity works - and they love it." The workshops are accompanied by a colourful literature pack, Norm's World, specially written and produced for the Spalding programme and providing fun facts about electricity, science, technology and the environment.

... and hopes to play a greater role in the years ahead