futureskills

2	Energy skills for the world Sarah Beacock FEI
7	Energy skills – challenges and opportunities Charles Hendry MP
8	Preparing for a job explosion in the renewables industry Tim Balcon
9	Delivering skills for energy Judith Holcroft
10	Engineering the future of oil and gas David Binnie Microgeneration, low carbon systems and skills
11	Sharing skills; particularly offshore Sean Buchan
12-20	Learning directory – university courses and training institutions
21	Views from student members Marc Height
23	Supported distance learning from the EI Will Sadler
24	A new approach to graduate training Carl Dawson
25	El-accredited courses in central Lancashire
26	Nuclear knowledge capture Dr Andy Clarke and Dr John W Roberts

Delivering the engineers of tomorrow

Editor's note

Paul Jackson

27

Skills underpin everything within our industry. The design, construction, operation, maintenance and eventual decommissioning of every oil rig, refinery and fossil-fuelled or nuclear power plant, or every wind turbine, for example, is reliant on the skills, knowledge and collaboration of a wide group of stakeholders, both directly and indirectly.

The day-to-day running of the transfer of this energy, both through pipes or on LNG ships, or through the wires of our electricity network, relies on people that have the difficult task of not only 'keeping the lights on', but also planning for a radically different energy future. At the demand side, individuals are constantly working on how to use this energy more effectively. Skills, then, are what we should be investing in when looking at the future of energy.

This is the third edition of the Energy Institute's (EI) annual supplement: Future skills. Since the last edition, the UK government has published its consultation on low carbon skills. This year, Charles Hendry MP, Minister of State for Energy, gives an overview of current government initiatives in the low carbon area on page 7.

The government plans that a large proportion of low carbon energy will come from offshore wind. The move to step-up the rate of offshore turbine installation will need expertise to do so, and the UK offshore oil and gas industry might just be the place to look – see page 11. Nuclear energy is also part of the government's low carbon agenda. Here we look at post-Fukishima impacts on nuclear new build from Cogent (page 9).

Elsewhere, the supplement focuses on the work that the El is doing to support the energy workforce, now and in the future.

Last, the supplement can act as a reference guide for members looking to undertake further study – a list of energy-related university courses and training bodies can be found on pages 12–20.

Skills underpin everything in the energy industry and the EI is well placed to support energy employees, aid professional development and provide knowledge to the industry.

Marc Height Assistant Editor, Energy World

Front cover

Clockwise from top left:

Getting students to pursue science, technology, engineering and maths-based subjects is key for the future of energy. See page 27.

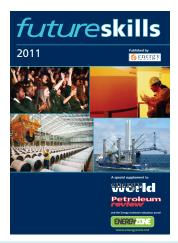
Photo: The Big Bang UK Young Scientists and Engineers Fair

The downstream petroleum industry provides a high level of workforce development, as described on page 9. *Photo: Cogent*

Photo: Cogent

The expansion in offshore wind is a growth opportunity for the UK and could employ a workforce of 70,000. See page 7.

Skills for nuclear new build will be additional to those used for plant decommissioning. Photo: Cogent



Published by

Energy Institute 61 New Cavendish Street, London, W1G 7AR, UK e: info@energyinst.org www.energyinst.org

Assistant Editor - Energy World

Marc Height GradEl t: +44 (0)20 7467 7152 e: mheight@energyinst.org

Editor - Energy World

Steve Hodgson t/f: +44 (0)1298 77601 e: stevehodgson@btinternet.com

Editor - Petroleum Review

Kim Jackson MEI t: +44 (0)20 7467 7118 e: kjackson@energyinst.org

Deputy Editor – Petroleum Review

Louise Smith t: +44 (0)20 7467 7142 e: Ismith@energyinst.org

Production Officer

Yvonne Laas t: +44 (0)20 7467 7117 e: ylaas@energyinst.org

Journal subscriptions Chris Baker

t: +44 (0)20 7467 7114 e: cbaker@energyinst.org

Advertisement sales

Steve Gardner, Excel Publishing t: +44 (0)7952 052866

 $e: {\bf steve.gardner@excel publishing.co.uk}\\$

Membership

For more information on becoming an El Member visit www.energyinst.org or contact

e: membership@energyinst.org

Printed by

Geerings Print Ltd, Ashford, Kent

© Energy Institute 2011

Opinions expressed in *futures*kills are those of the authors individually and do not necessarily express the views of the Energy Institute as a corporate body.

futureskills is printed on wood-free, chlorine-free pulp sourced from a sustainable forest.

Energy Institute, Registered Charity No 1097899 61 New Cavendish Street, London, W1G 7AR, UK