

# Gas Industry: workforce and skills profile

*Purpose – Collate the power sector intelligence on workforce and skills issues (sources include primary and secondary data and/ qualitative evidence).*

## Characteristics of the industry

- The energy industry (includes gas - the industry is divided into transmission & distribution and utilisation) is responsible for delivery of around 35% of the £500bn National Infrastructure Plan.<sup>i</sup>
- The coming decade will see huge investment in energy (includes gas) as well as enormous change, with over £100bn to be invested in infrastructure and technology.<sup>ii</sup>
- The gas industry employs approximately 180,755, of which 74% are employed in gas utilisation.<sup>iii</sup>
- The transmission and distribution industry employs 47,000 people, representing an increase of 15% on the previous year.<sup>iv</sup>

## Industry demographics

- The evidence indicates that the gas industry workforce is male dominated (63% of workforce). The proportion of males in the gas workforce is higher than the all sector average of 53%.<sup>v</sup>
- Across the UK, 12% of the workforce are from a BAME backgrounds. Similarly, in the gas industry the figure is 13%.<sup>vi</sup>
- The industry is a high performing and well-paying sector, with average salaries above the UK average of £29,010. In the gas industry, the average annual salary is £41,565.<sup>vii</sup>
- In the gas industry 13% of the total workforce is made up on non UK nationals which is greater than the UK average of 11%.<sup>viii</sup>
- The majority of the gas utilisation workforce is employed in skilled trade occupations, whereas proportionately more of the gas transmission and distribution workforce is employed in the professional occupations.<sup>ix</sup>

## Skills challenges

- While gas is likely to continue to play a core role in our energy mix, the industry itself will be fundamentally transformed, inevitably impacting on its skill demand profile. A different mix, cross sector and specialist skills in engineering, science, project management, R&D are crucial for the gas industry.<sup>x</sup>
- There is a greater future need for high level and technical skills due to diversification of technologies and gas sources and multiplication of network input points.<sup>xi</sup>
- The National Infrastructure Plan for Skills highlights the need for additional workforce and upskilling required to meet the smart metering installation target.<sup>xii</sup>

## Employment and workforce renewal

- The gas industry predicts that 22,000 vacancies will need to be filled during the next decade as a result of employees either retiring or leaving through normal staff turnover.<sup>xiii</sup>
- Over the next five years, 47% of the technical gas distribution workforce (across both asset owners and contractors) is predicted to leave their current job; either through retirement or normal staff turnover.<sup>xiv</sup>
- The industry has an ageing technical workforce: 20% of the technical workforce is over 55 years old.<sup>xv</sup> For gas utilisation, 17% of the workforce is aged over 55 years.<sup>xvi</sup>
- However, 8% of the overall gas transmission and distribution workforce is over 55 years old, a decrease of 9% from the previous year.
- Only 1% of university leavers (2,005) joined the energy and utilities sector in 2015/16 of which 11% of these university leavers joined the gas industry.<sup>xvii</sup>

## Apprenticeships expenditure and starts

- In the 'electricity, gas, steam and air conditioning' industry, the highest level of expenditure is amongst the larger businesses, equating to approximately 93%.<sup>xviii</sup>
- In 2014/15, of all the apprenticeships started in the sector, 50% were in 'electricity, gas, steam and air conditioning' and employer participation is below half at 45%.<sup>xix</sup>

<sup>i</sup> HMT (2016) *NIPD 2016-2021*

<sup>ii</sup> HMT (2016) *NIPD 2016- 2021*

<sup>iii</sup> ONS (2017) *Business Register and Employment Survey*

<sup>iv</sup> ONS (2017) *Business Register and Employment Survey*

<sup>v</sup> ONS (2017) *Labour Force Survey (4 quarter average Jan-Dec 2016)*

<sup>vi</sup> ONS (2017) *Labour Force Survey (4 quarter average Jan-Dec 2016)*

<sup>vii</sup> ONS (2017) *ASHE*

<sup>viii</sup> ONS (2016) *Labour Force Survey (4 quarter average Jan-Dec 2016)*

<sup>ix</sup> ONS (2017) *Labour Force Survey (4 quarter average Jan-Dec 2016)*

<sup>x</sup> HM Treasury, (2015) *National Infrastructure Plan for Skills*, HMT

<sup>xi</sup> EUSG (2013) *Foresight: Overview of key findings*

<sup>xii</sup> HM Treasury, (2015) *National Infrastructure Plan for Skills*, HMT

<sup>xiii</sup> EUSG (2016) *Workforce Planning Research Results*

<sup>xiv</sup> EUSG (2016) *Workforce Planning Research Results*

<sup>xv</sup> EUSG (2016) *Workforce Planning Research Results*

<sup>xvi</sup> BIS (2016) *Labour Force Survey (4 quarter average Jan-Dec 2015)*

<sup>xvii</sup> EUSG (2017) *HESA Data Analysis – Higher Education Statistical Summary 2015/2016*

<sup>xviii</sup> DfE (2016), *Information on apprenticeship levy: data drawn down by size and sector and the total apprenticeship budget*

<sup>xix</sup> London Economics (2017) *The incidence of apprenticeships in England*