

## **Shale Gas: key considerations and the investment opportunities**

At a seminar in London today, Impax Asset Management (“Impax”) highlighted several considerations for the shale gas industry and identified four key investment opportunities. These are across industries that are poised for strong growth from their increasing participation in the improvement of the treatment of water and waste from the shale gas industry, increasing production efficiency and ensuring better compliance in an industry facing much stricter future regulation.

Broadly diversified investors can limit downside risk and pursue upside opportunities and a wide range of new opportunities for investors are emerging. A well balanced portfolio of holdings offers the potential for strong growth in rapidly developing markets.

With this increased cheap source of gas the near term undoubtedly remains challenging for renewables. However, the longer term implications of the increased use of gas will lead to far greater flexibility in power generation, particularly for wind and solar as new gas plants can be brought online swiftly to supply peak capacity during periods of low activity or peak demand.

Bruce Jenkyn-Jones, Managing Director of the Listed Equity team at Impax, commented:

“The expanded natural gas production is dramatically changing the US energy and environmental markets and will have major implications for the world’s future energy supply and its security. Some of the best investment opportunities arising from the shale revolution are in the suppliers helping the industry to operate more efficiently, reduce pollution and meet increasingly strict environmental controls. We could be about to witness a modern day equivalent of selling shovels during the gold rush.”

### **Background to the hydraulic fracturing process**

Shale gas production is made possible by the process of hydraulic fracturing which requires huge volumes of water, containing a cocktail of chemicals to be injected into each well. This water has to be transported to the site, processed and injected into the well. It is estimated that 70 – 140 billion gallons of water per year are used by the industry in the US. Around 50% - 70% of this water is

forced back out of the well after the gas is extracted. This water needs to be treated so it can be re-used or be clean enough to be returned to aquifers. The industry will inevitably become subject to increasingly strict regulatory controls.

**Four key areas which are set to benefit from shale gas development:**

**1. *The Water Sector – benefiting today and increasingly with greater future regulation***

Companies in this category are involved either through water supply, sale of water chemicals, fracking pumps or associated wellhead infrastructure. There is currently no significant treatment of the contaminated water but this is expected to increase significantly as regulation tightens. Water recycling can also be expected to increase.

**2. *Testing – require tightening of standards to benefit***

Testing is required for the output products from the wells and throughout the refining process. As new regulation comes on stream these companies will inevitably benefit.

**3. *Hazardous waste – greater benefits still to come***

Companies involved with safe disposal of hazardous waste are already seeing some activity through treatment and disposal of the highly contaminated by-products from the shale production process. This demand looks set to increase as regulation on the disposal of fracking fluids becomes much stricter.

**4. *Environmental Consultancies - considerable further growth anticipated***

There are already a number of engineering and consulting companies setting up and operating well sites, particularly water provision to well sites, as well as building pipelines for the produced gas and liquids. With increased regulation, producers will require significant consulting advice to achieve compliance standards in the use of water, environmental assessments, site remediation and other activities such as tracking gas lost to the atmosphere and monitoring well-case linings. This is another area likely to yield more investment opportunities as further regulations are implemented.

**- ENDS -**

Impax has published a white paper: Shale Gas: Opportunities from the energy, water, money nexus. Please contact Anne Gilding if you would like to receive a copy.

**Anne Gilding**  
**Head of Brand Communications**  
**Impax Asset Management**  
Norfolk House, 31 St James's Square,

Tel: +44 (0) 20 7434 1122 (switchboard)  
Tel: +44 (0) 20 7432 2602 (direct)  
Tel: +44 (0) 7881 249612 (mobile)

London, SW1Y 4JR  
[www.impaxam.com](http://www.impaxam.com)

Email: [a.gilding@impaxam.com](mailto:a.gilding@impaxam.com)

## **Notes to Editors**

### **About Impax Asset Management**

Founded in 1998, Impax Asset Management (“Impax”) was one of the world’s first managers dedicated to exploiting the investment opportunities created by resource scarcity and demand for cleaner, more efficient products and services through listed and private equity strategies.

Impax now manages ca. £1.8 billion\* for institutional and high net worth investors globally, and is committed to providing strong long-term risk-adjusted returns. Our team of 28 investment professionals has been assembled for over 13 years.

Impax’s listed equity funds seek out mis-priced companies that are set to benefit from the long-term trends of changing demographics, rising consumption, limited natural resources and urbanisation. Investment is focused on the alternative energy, water, waste and related markets. Impax’s private equity infrastructure funds invest in power generation assets in the renewable energy sector.

Impax is a thought leader in defining the markets in which we invest, for example through a partnership with FTSE to develop and manage the classification system underpinning the FTSE Environmental Markets Index Series.

\*data in £ sterling as at 30 September, 2012.