

# Half Year Results

6 Months Ended 30 June 2014

29 July 2014



# Agenda

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## **H1 2014 Business Review Regulation and Biomass**

**Dorothy Thompson**

Chief Executive

## **H1 2014 Financial Review**

**Tony Quinlan**

Finance Director

## **Conclusion**

**Dorothy Thompson**



# Overview

Dorothy Thompson – Chief Executive

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## H1 2014 performance

Good operations

Increasing cost of UK carbon tax

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EBITDA

£102m

## Sustainable biomass generation

Now more than 20% of output –  
enough to power 2 million homes

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Underlying Earnings Per Share

9.4p

## Regulation

More clarity expected

Interim Dividend

4.7p/share (£19m)

# Business Review – Safety and Sustainability

## Safety

### Maintaining good safety performance

- LTIR performance at historic lows
- US construction performance improving
  - Further progress required

## Sustainability

### All Drax biomass procured against robust industry-leading sustainability policy

- Fully compliant in 2013
- Delivering >80% carbon life cycle savings vs. coal
- Thorough PWC independent audit process

### DECC working towards mandatory standards

### Sustainable Biomass Partnership

- Common sustainability certification across major European generators

## Safety Performance



(1) TRIR = total recordable injury rate, LTIR = lost time injury rate

# Business Review – Coal Operations

## Good operating performance

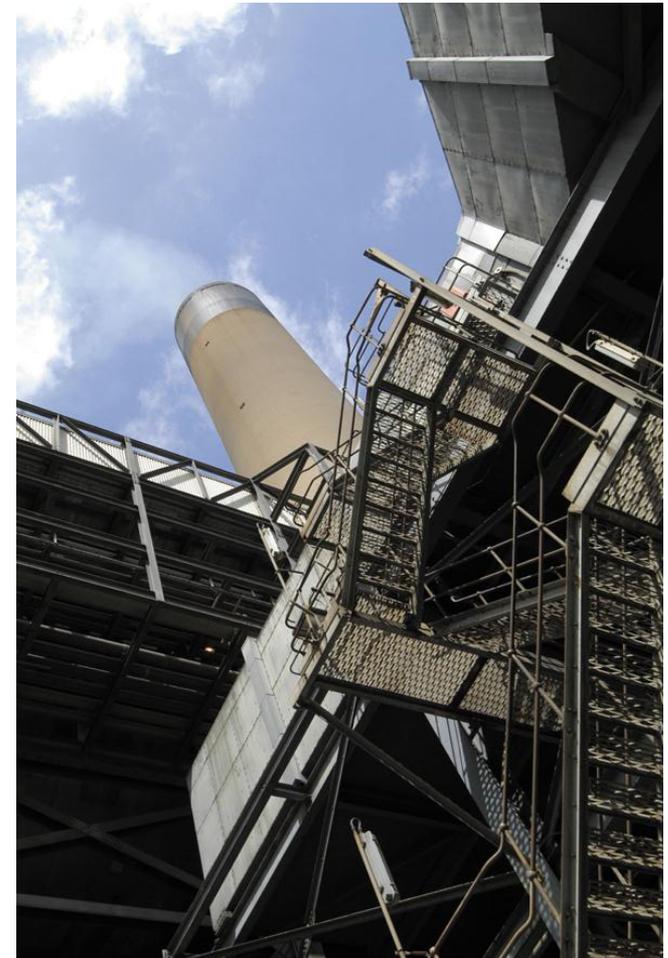
### 85% availability (H1 2013: 82%)

- 7.3% forced outage rate (H1 2013: 7.6%)
- Long-term FOR target 5%
- 8.3% planned outage rate (H1 2013: 11.1%)

### 82% load factor (H1 2013: 78%)

## Fuel Mix

|         | H1 2014 |                     | H1 2013 |                     | 12m 2013            |
|---------|---------|---------------------|---------|---------------------|---------------------|
|         | Tonnes  | Mix% <sup>(1)</sup> | Tonnes  | Mix% <sup>(1)</sup> | Mix% <sup>(1)</sup> |
| Coal    | 4.0Mt   | 77%                 | 4.6Mt   | 93%                 | 88%                 |
| Biomass | 1.6Mt   | 23%                 | 0.4Mt   | 7%                  | 12%                 |



(1) By heat

# Business Review – Biomass Operations

## Biomass now > 20% of fuel mix

### First converted unit

- First 6 months of operations with fully scoped systems

### Enhanced co-firing (ECF) unit

- Fuelled with coal and biomass – minimum 85% biomass
- NOx and fuel trials

### Operational performance (both units)

- 76% availability (H1 2013: 76%)
  - 7.5% forced outage rate (H1 2013: 13.1%)
  - 17.4% planned outage rate (H1 2013: 12.9%)
  - Expect availability matching coal from 2016
- 71% load factor (H1 2013: 57%)

### Good progress with unit optimisation

- Investment to secure improved capacity and efficiency
  - £90m over 3 years (3 units)
- Successful grid flexibility test
  - Increased balancing activity

First Converted Unit Output



Physical Notifications: April 2013 - June 2014  
Source: Drax, Balancing Mechanism Reporting Agent data

# Business Review – Haven Power

## Credit-efficient route to market

### On track for 12 - 15TWh by 2015

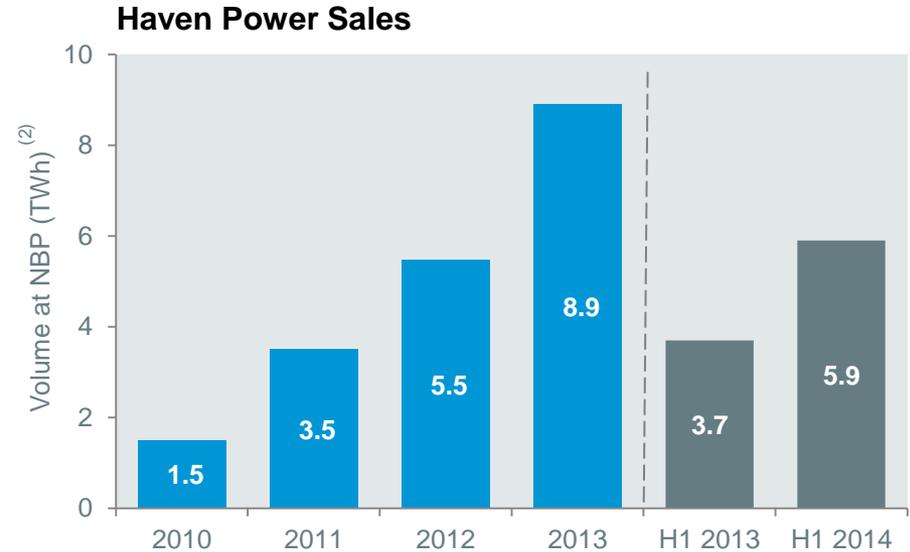
- I&C and SME markets<sup>(1)</sup>

### H1 2014 performance

- Retail sales £513m (H1 2013: £323m)
- 10.6TWh contracted for next 12 months
  - Excellent I&C renewal performance
  - Credit quality remains good with low bad debt experience
- Implementing mitigation strategy for Labour price freeze risk

### Systems improvement continuing

- New customer portal well received
- Increased regulatory requirements



### Haven Customers



YOUR LONDON AIRPORT  
*Gatwick*

1) I&C = Industrial and Commercial, SME = Small and Medium Enterprises

2) NBP = Notional Balancing Point

# Business Review – Markets and Trading

## Near-term market developments

### Mild, windy weather in 2014

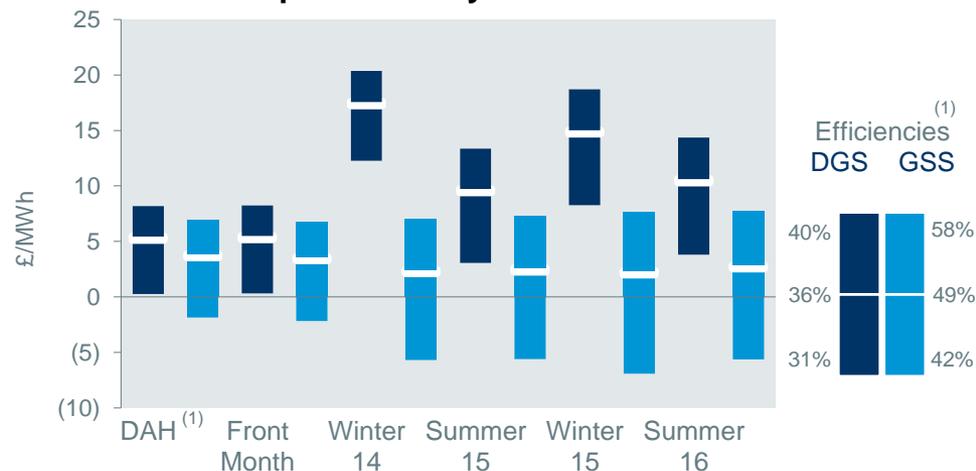
- Weak gas market, high gas storage
  - Weak power markets in 2014
  - Summer overnight change in merit order
- Lower 2014 ROC prices

## Hedging

### High baseload forward sales for 2014

- Hold capacity to near-term market for self-insurance
- Add shape to optimise

Forward Spreads – July 2014



| Power Sales Contracted as at 21 July 2014 | 2014   | 2015   |
|---|--------|--------|
| Power Sales – TWh                         | 25.3   | 12.4   |
| <b>Comprising:</b>                        |        |        |
| Fixed Price TWh                           | 24.0 @ | 10.1 @ |
| at Average Achieved Price £ per MWh       | 52.0   | 53.5   |
| Fixed Margin Contracts TWh                | 1.3    | 2.3    |

(1) DGS = dark green spread, GSS = green spark spread, DAH = day ahead  
 Sources for chart: Spectron, Brokered Data, Drax assumptions  
 Based on market prices on 18<sup>th</sup> July 2014

# Industrial Emissions Directive (IED)

## Successful trials in 2014

- Low NOx burners and Selective Non-catalytic Reduction (SNCR)
- Confirmed need SNCR on all biomass units

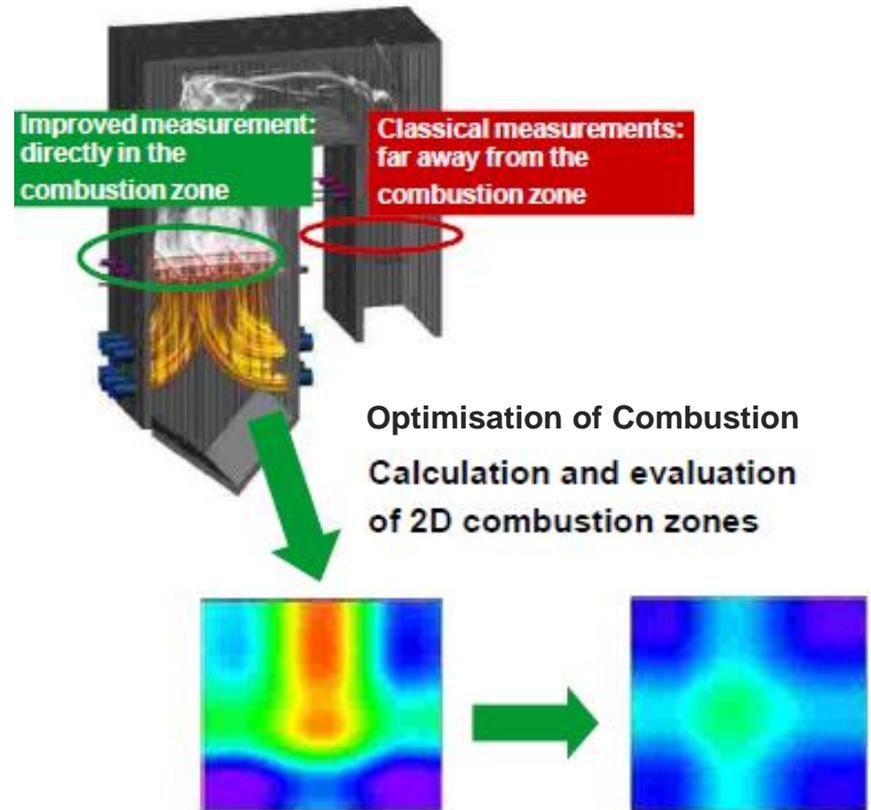
## Lead case solution now verified

- Low NOx burners – all units
- SNCR – all units
- ZoloBOSS boiler laser monitoring – all biomass units
- £75m - £100m (over 4 years)
- Started execution

## Solution benefits

- Compliant post 2020
- Maintains flexibility
- Unconstrained generation
- Coal sourcing flexibility

## SNCR Trial – Boiler Laser Monitoring



# Carbon Capture and Storage (CCS)

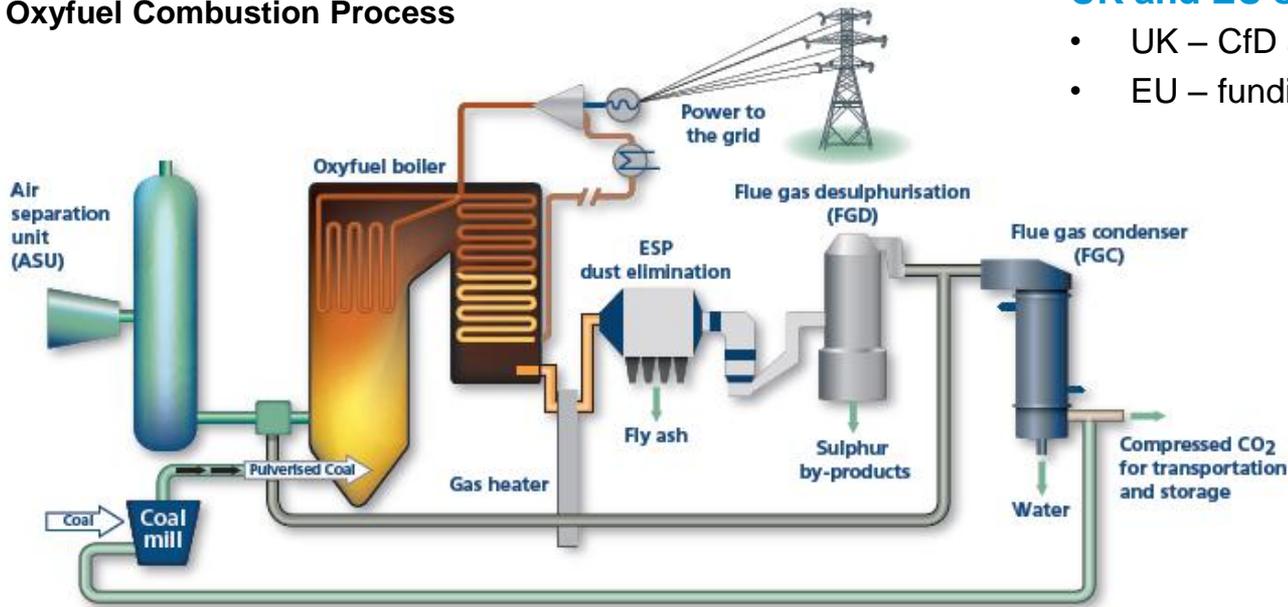
## New 426 MW (gross) oxyfuel demonstration plant

- Drax, Alstom, BOC and National Grid
- 2 year feasibility study started in January 2014
  - Total cost to Drax £4m
- Final investment dependent on appropriate return to reflect technical and commercial risks

## Project highlights

- 426MW gross / 300MW net capacity
- Power plant project cost c.£2bn
- 90% CO<sub>2</sub> capture rate – 2 Mt pa
  - Stored in saline formation 60 miles offshore
- Pipeline sized with up to 17Mt pa capacity
  - Future strategic option for Drax

## Oxyfuel Combustion Process



## UK and EU support

- UK – CfD and development grant
- EU – funding potential (NER 300)

# Regulation – Base Case

|           |         | Unit                                | Support   | Level   | Operational | Notes:                            |
|-----------|---------|-------------------------------------|-----------|---------|-------------|-----------------------------------|
| Base Case | Biomass | 1 <sup>st</sup> Unit                | RO        | 1.0 ROC | Q2 2013     |                                   |
|           |         | 2 <sup>nd</sup> Unit <sup>(1)</sup> | RO        | 1.0 ROC | Q4 2014     |                                   |
|           |         | 3 <sup>rd</sup> Unit                | Early CfD | £105    | 2015/16     | EU State aid clearance            |
|           | Coal    | 4 <sup>th</sup> Unit                |           |         |             | Wholesale market and retail sales |
|           |         | 5 <sup>th</sup> Unit                |           |         |             |                                   |
|           |         | 6 <sup>th</sup> Unit                |           |         |             |                                   |

(1) Unit currently operating as enhanced co-firing unit prior to full conversion

# Regulation – Base Case and Potential Upside

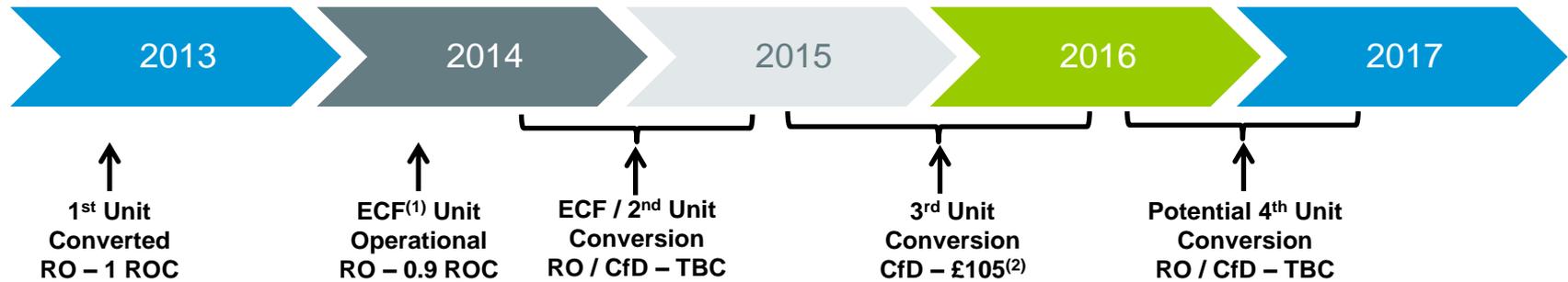
|                  |         | Unit                                | Support              | Level       | Operational | Notes:                                     |
|------------------|---------|-------------------------------------|----------------------|-------------|-------------|--|
| Base Case        | Biomass | 1 <sup>st</sup> Unit                | RO                   | 1.0 ROC     | Q2 2013     |  |
|                  |         | 2 <sup>nd</sup> Unit <sup>(1)</sup> | RO                   | 1.0 ROC     | Q4 2014     |  |
|                  |         | 3 <sup>rd</sup> Unit                | Early CfD            | £105        | 2015/16     | EU State aid clearance                     |
| Potential Upside | Biomass | 2 <sup>nd</sup> Unit                | Early CfD            | £105        | Q2 2015     | Legal challenge and EU State aid clearance |
|                  |         | 4 <sup>th</sup> Unit                | Enduring CfD auction | TBC         | 2016/17     | Budget availability                        |
|                  |         |                                     | RO                   | 0.9/1.0 ROC | 2016/17     |  |

(1) Unit operating as enhanced co-firing unit prior to full conversion

# Regulation – Base Case and Potential Upside

|                  |         | Unit                                | Support                  | Level       | Operational      | Notes:                                     |
|------------------|---------|-------------------------------------|--------------------------|-------------|------------------|--|
| Base Case        | Biomass | 1 <sup>st</sup> Unit                | RO                       | 1.0 ROC     | Q2 2013          |  |
|                  |         | 2 <sup>nd</sup> Unit <sup>(1)</sup> | RO                       | 1.0 ROC     | Q4 2014          |  |
|                  |         | 3 <sup>rd</sup> Unit                | Early CfD                | £105        | 2015/16          | EU State aid clearance                     |
|                  | Coal    | 4 <sup>th</sup> Unit                |                          |             |                  | Wholesale market and retail sales          |
|                  |         | 5 <sup>th</sup> Unit                |                          |             |                  |  |
|                  |         | 6 <sup>th</sup> Unit                |                          |             |                  |  |
| Potential Upside | Biomass | 2 <sup>nd</sup> Unit                | Early CfD                | £105        | Q2 2015          | Legal challenge and EU State aid clearance |
|                  |         | 4 <sup>th</sup> Unit                | Enduring CfD auction     | TBC         | 2016/17          | Budget availability                        |
|                  |         |                                     | RO                       | 0.9/1.0 ROC | 2016/17          |  |
|                  | Coal    | Coal units                          | Capacity payment auction | TBC         | 2018/19 delivery | Auction participation (Q4 2014)            |
|                  |         |                                     |                          |             |                  | Carbon Capture and Storage                 |

# Biomass – Delivering the Transformation



## 2014 – 2 high % biomass units

- Drax site construction complete Q3
- 6Mt pa of UK port and rail capacity fully operational by year end
- Biomass IED solution finalised and being implemented
- Possible conversion of 2<sup>nd</sup> unit under RO

## 2015 – 2 or 3 high % biomass units

- Conversion of 2<sup>nd</sup> unit in April if supported by CfD
- US construction complete and facilities operational
- 3<sup>rd</sup> unit CfD commissioning window July 2015 to July 2016

## 2016 – 3 unit transformation complete

- 3 converted units – with fuel supply, UK port and rail capacity secure
- Targeting 4<sup>th</sup> unit conversion 2016/17

(1) ECF = Enhanced Co-firing

(2) 2012 prices, CPI inflation

# Biomass – Fuel Supply

## Cost guidance £8.10/GJ (2014 prices)

- Incorporates foreign exchange hedging programme

## Good progress with near-term volumes

- > 5Mt contracted for 2014/15 ROC year
- Disruption in EU demand assisting with near-term volumes

## Negotiations progressing for 2<sup>nd</sup> and 3<sup>rd</sup> unit conversions

- Underpinned by Early CfD(s)
- Uncertainty caused by DECC eligibility decision causing some delays
- Converted unit load factors dependent on pace of biomass supply chain development

## Evaluating increase in own pellet production

Biomass Transfer Tower – June 2014



# Biomass – US Pellet Operations

## US Gulf projects: on schedule and to budget

### Pellet plants

- Amite (450kt pa) COD<sup>(1)</sup> Q1 2015
- Morehouse (450kt pa) COD Q2 2015
- Full capacity 6 months post COD

### Port facility

- Baton Rouge (3Mt pa) COD Q1 2015

## Options to expand US supply chain

### Significant benefits from own pellet production

- Attractive returns and good quality fuel
- Optimise supply chain

### Consolidation hub strategy

- US Gulf
  - Baton Rouge hub
  - Potential to accelerate investment in 3<sup>rd</sup> pellet plant – capacity 0.5Mt pa
- East coast
  - New port hub
  - Throughput from new Drax pellet plants and 3<sup>rd</sup> party suppliers

Amite Site – June 2014



(1) COD = commercial operations date

# Biomass – Cost-effective Carbon Savings

## Significant benefits of biomass conversion

### Major carbon savings at Drax

- 3 converted units – c.12Mt pa<sup>(1)</sup>
- 4 converted units – c.16Mt pa<sup>(1)</sup>

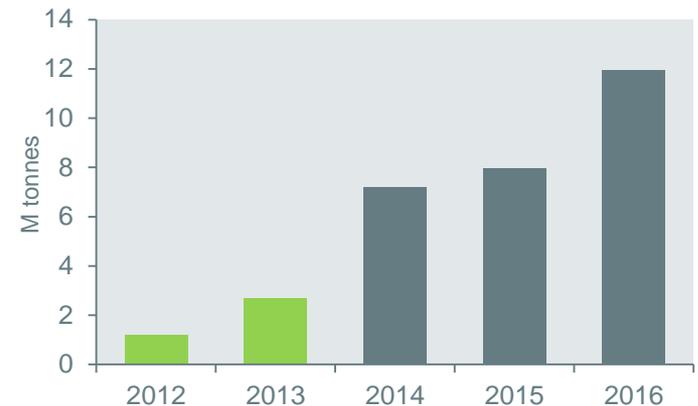
### Consumer benefits of biomass vs. offshore wind

- Support for offshore wind c.100% higher

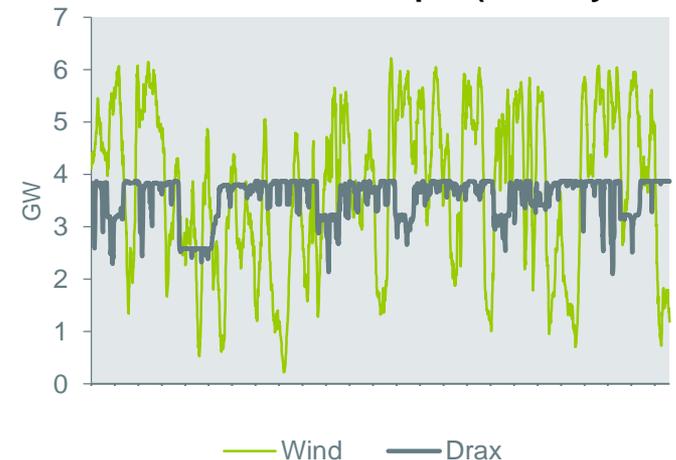
### Additional benefits – security of supply

- Flexible and reliable generation
- No impact on system support costs

Indicative Future Drax Carbon Savings<sup>(1)</sup>



Drax vs. UK Wind Output (January 2014)



(1) Compared to equivalent coal-fired generation  
Sources for charts: BMRA and Drax

# H1 2014 Financial Review

Tony Quinlan – Finance Director

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EBITDA

£102m

Net Debt<sup>(2)</sup>

£38m

Underlying Earnings Per Share<sup>(1)</sup>

9.4p

Interim Dividend

4.7p (£19m)

- H1 2014 profits – good operational performance for biomass and coal
- Year on year EBITDA reduction – increasing cost of UK carbon tax

- Biomass transformation
  - Investments delivering stronger business
  - Potential for further value enhancing biomass investments

1) Excl. unrealised losses on derivative contracts of £56m (less tax effect)

2) Cash and short-term investments of £279m less borrowings of £317m

# Income Statement – Summary

| In £m (unless otherwise stated)                             | H1 2014      | H1 2013     | % Year-on-Year |
|---|--------------|-------------|----------------|
| Revenue   | 1,257        | 919         |                |
| Cost of Sales   | (1,053)      | (703)       |                |
| <b>Gross Margin</b>   | <b>204</b>   | <b>216</b>  |                |
| Operating Costs   | (102)        | (96)        |                |
| <b>EBITDA</b>   | <b>102</b>   | <b>120</b>  | <b>-15%</b>    |
| IAS39 Unrealised (Losses) / Gains on Derivative Contracts   | (56)         | 123         |                |
| Depreciation  | (42)         | (29)        |                |
| <b>Operating Profit</b>                                     | <b>4</b>     | <b>214</b>  |                |
| Net Finance Costs   | (15)         | (8)         |                |
| <b>(Loss) / Profit Before Tax</b>                           | <b>(11)</b>  | <b>206</b>  |                |
| Tax Credit / (Charge)                                       | 4            | (42)        |                |
| <b>Reported (Loss) / Earnings</b>                           | <b>(7)</b>   | <b>164</b>  |                |
| <b>Underlying Earnings</b>                                  | <b>38</b>    | <b>70</b>   |                |
| <b>Reported Basic (Losses) / Earnings Per Share (pence)</b> | <b>(1.7)</b> | <b>40.8</b> |                |
| <b>Underlying Basic Earnings Per Share (pence)</b>          | <b>9.4</b>   | <b>17.3</b> | <b>-46%</b>    |
| <b>Total Dividend Per Share (pence)</b>                     | <b>4.7</b>   | <b>8.7</b>  |                |

# Income Statement – Revenue

| In £m (unless otherwise stated)            | H1 2014      | H1 2013     |
|--|--------------|-------------|
| <b>Total Revenue</b>                       | <b>1,257</b> | <b>919</b>  |
| Wholesale Power Sales                      | 706          | 576         |
| Retail Power Sales                         | 513          | 323         |
| ROC and LEC Sales <sup>(1)</sup>           | 19           | 2           |
| Other Income                               | 19           | 18          |
| <b>Electrical Output (Net Sales) (TWh)</b> | <b>12.9</b>  | <b>12.6</b> |
| <b>Average Achieved Price (£ per MWh)</b>  | <b>51.3</b>  | <b>50.1</b> |

- Increases in net sales volume and average achieved price

- Retail sales 5.6TWh (H1 2013: 3.6TWh)<sup>(2)</sup>

- ROCs and LECs sold in period
- Value of ROCs generated in period is deducted from cost of sales

- Ancillary services and other revenues

## Power Prices



Sources: Brokered Trades, Spectron

- (1) Net of intercompany eliminations of £19m  
 (2) At Customer Meter

# Income Statement – Cost of Sales

| In £m (unless otherwise stated)                                     | H1 2014           | H1 2013           |  |
|---|-------------------|-------------------|--|
| <b>Total Cost of Sales</b>  | <b>1,053</b>      | <b>703</b>        |  |
| Fuel Costs <sup>(1)</sup>   | 351               | 324               |  |
| Carbon Tax  | 49                | 14                |  |
| Cost of Carbon Allowances   | 44                | 70                |  |
| ROCs and LECs Sold or Utilised                                      | 38                | 1                 |  |
| Cost of Power Purchases   | 350               | 146               |  |
| Generation Grid Charges   | 36                | 31                |  |
| Retail Grid Charges and Other Retail Cost of Sales                  | 185               | 117               |  |
| <b>Average Fuel Cost (excl. CO<sub>2</sub> costs)<sup>(2)</sup></b> | <b>£27.2/MWh</b>  | <b>£25.8/MWh</b>  |  |
| <b>Number of Purchased CO<sub>2</sub> Allowances Expensed</b>       | <b>8.6m</b>       | <b>10.2m</b>      |  |
| <b>Average Cost of Purchased CO<sub>2</sub> Allowances</b>          | <b>£5.2/tonne</b> | <b>£6.9/tonne</b> |  |

- Cost of coal and biomass: £483m (£37.5/MWh)  
- H1 2013: £365m (£28.9/MWh)
- Less value of ROCs generated: £132m (£44/MWh)  
- H1 2013: £41m (£48/MWh)

- Carbon tax payable from April 2013
- 2014/15 charge £10/t (2013/14: £5/t)

- Lower number of allowances expensed at lower average price

- ROCs / LECs sold: £19m
- Utilised at Haven: £19m

- Increasing intermittent generation in UK leading to more balancing activity and power buy-backs

- Retail sales 5.6TWh (H1 2013: 3.6TWh)<sup>(3)</sup>

(1) Includes cost of fuel sold of £9m (H1 2013: £4m)

(2) Excludes carbon tax (charged on coal deliveries and recognised as fuel cost on burn)

(3) At Customer Meter

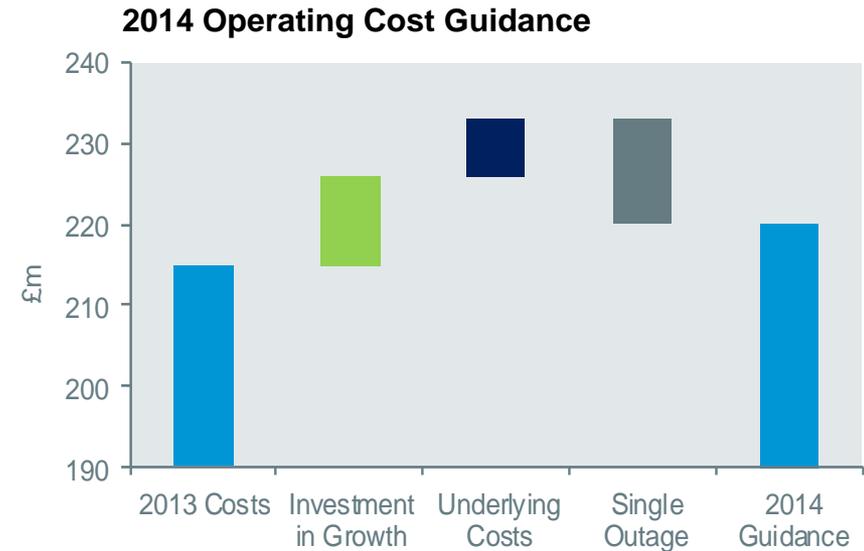
# Operating Costs

## Operating costs – £102m in H1 2014

H1 2014 total operating cost £6m increase

Full year 2014 operating cost guidance unchanged at £220m (2013: £215m)

- Investment in growth (US business, CCS): £11m
- Underlying cost inflation: +£7m (3%)
- Single outage year: -£13m
- Phasing reflects US running costs prior to start of operations



# Capital Expenditure

## Biomass transformation capex on schedule and budget

### H1 2014 £123m

- Including £88m for transformation

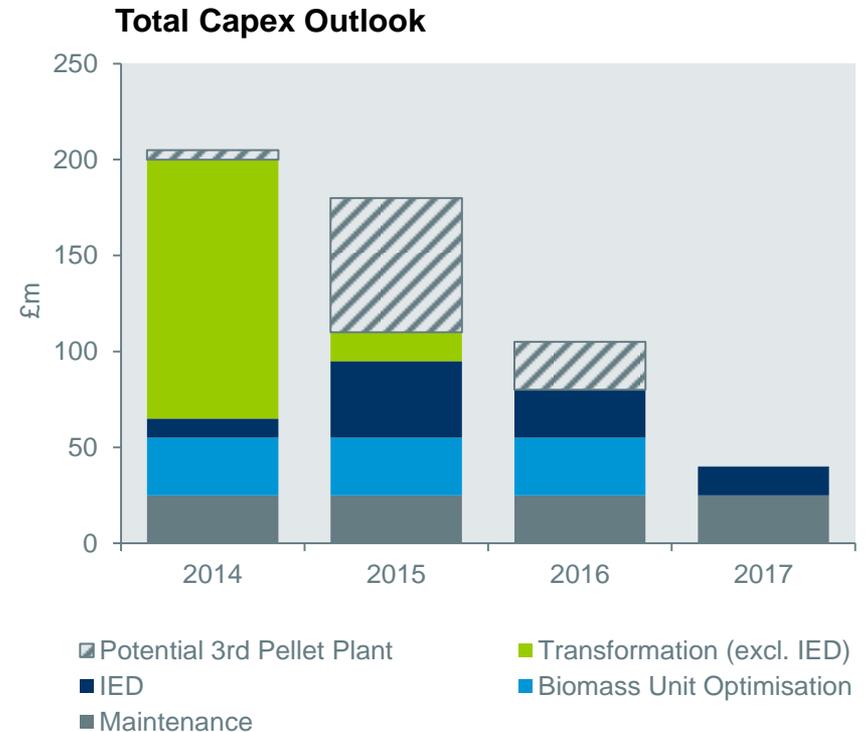
### 2014 capex guidance c.£200m

### Capex outlook

- Transformation: £160m - £185m (2014-15)
- IED: £75m - £100m (2014-17)
- Biomass unit optimisation: £90m (2014-16)

### Evaluating further investments in:

- Biomass supply chain
  - 3<sup>rd</sup> US Gulf pellet plant
  - US East coast pellet operations
- 4<sup>th</sup> unit conversion



# Value of Plant Flexibility

## Plant flexibility will command increasing value going forward

### Inflexible wind capacity increasing

- Wind output now ranges from nil – 12GW
  - NG<sup>(1)</sup> forecast 18GW by 2018
- Summer overnight demand is c.20GW

### Increasing system balancing support

- Flexible plant provides balancing reserve
- Drax biomass and coal units well placed to capture incremental margin
  - Flexible units 200MW - 630/645MW

### Value of flexibility – option to generate or not

## Case study – Drax Unit (5<sup>th</sup> June)

### (1) Forward power sales

### (2) Overnight price falls

- Power bought back
- Output reduced to minimum load

### (3) NG required balancing reserve

- Power sold to NG in BM<sup>(2)</sup>
- Output increased to 300MW

### Value of plant flexibility – £100k in 1 night

#### Drax Unit Overnight (5<sup>th</sup> June)



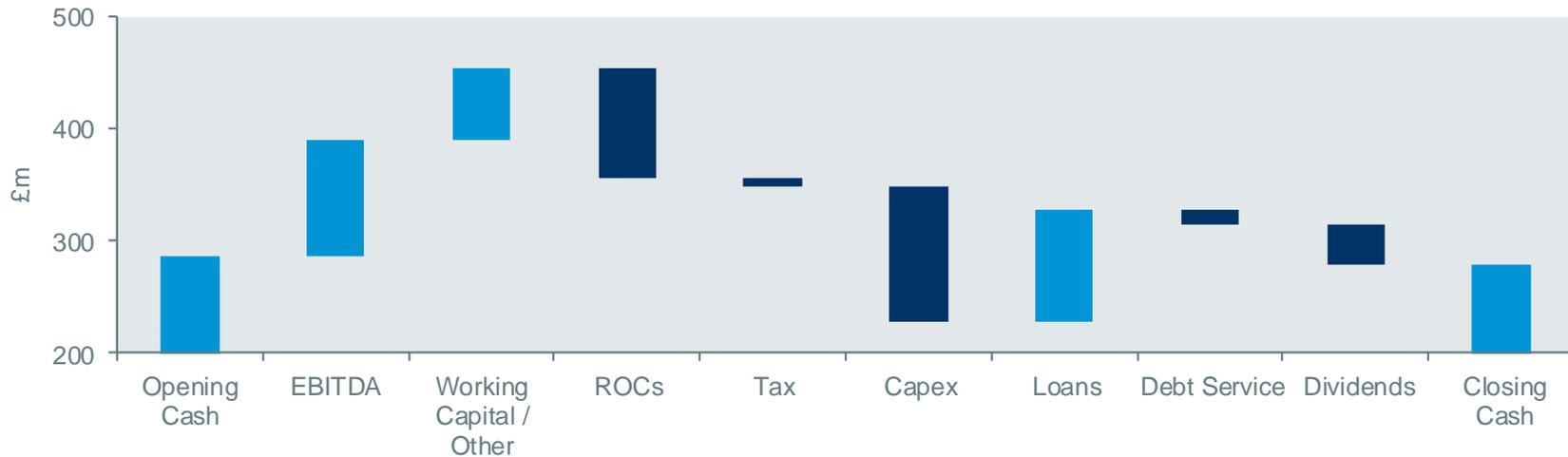
(1) National Grid

(2) Balancing Market

Source for chart: Drax data

# Cash Flow

## H1 2014 Cash Flow



| Working Capital / Other  | ROCs / LECs             | Tax                                | Capex                   | Dividends                         | Closing Cash                   |
|--|-------------------------|------------------------------------|-------------------------|-----------------------------------|--------------------------------|
| <b>£64m</b>  | <b>(£98m)</b>           | <b>(£7m)</b>                       | <b>(£120m)</b>          | <b>(£36m)</b>                     | <b>£279m</b>                   |
| Biomass stocks increase (£39m)<br>0.3Mt increase to 0.6Mt<br><br>Coal stocks decrease £11m<br>0.3Mt decrease to 1.9Mt<br><br>Other net inflow £92m<br>Increase in creditors<br>(Carbon, Haven ROC accrual) | Increase in ROCs / LECs | Payments in respect of 2012/13 £7m | Cash payments for capex | Final 2013 dividend of 8.9p/share | Net debt after borrowings £38m |

# Financing, Working Capital and Distributions

## Debt facilities

### Loans

- M&G (2012): £100m term loan
- GIB<sup>(1)</sup>: £50m term loan
- Friends Life: £75m term loan
  - Underpinned by guarantee from I-UK<sup>(2)</sup>
- M&G (2014): £100m loan

### Other facilities

- £400m working capital and LC<sup>(3)</sup> facility
  - Matures April 2016
- Commodity trading line

### Credit rating BB+

- Robust sub-investment grade business model

## Cash flow management

### £80m ROC monetisation facility

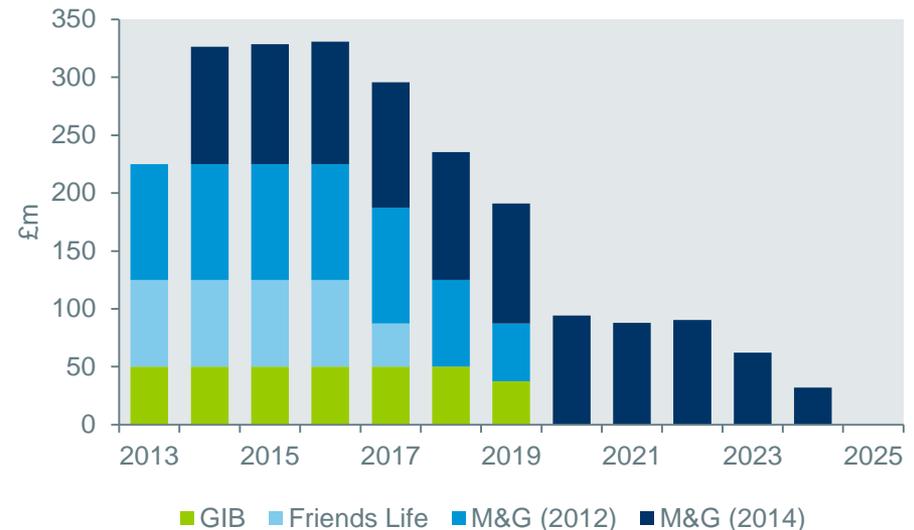
- Sale of ROC receivables – accelerates cash flows

(1) GIB = UK Green Investment Bank

(2) I-UK = Infrastructure UK

(3) LC = Letter of Credit

Term Loan Maturity Profile



## Distributions

Regulatory clarity is the key driver of decisions on future capital structure and distribution policy

# Summary

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## H1 2014 performance

- Good operations
- Year on year EBITDA reduction – increasing cost of UK carbon tax

## Biomass transformation

- Capex on schedule and budget
- Investments delivering a stronger business

## Looking ahead

- Well placed to capture increasing value from plant flexibility
- Attractive potential biomass investment opportunities
- Determine optimal capital structure and distribution policy as regulation clarifies

Dome Storage – June 2014



# Conclusion

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**2014**

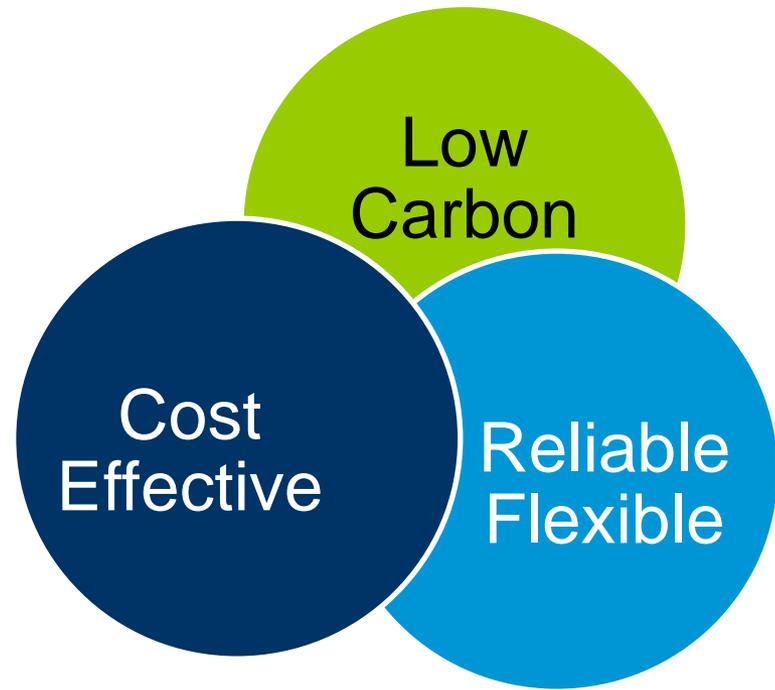
**Foundation year**

**2015**

**Increased conversions**

**2016**

**Transformation delivered**



***Predominantly renewable power provider***

# Questions



# Appendices

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1. Definitions
2. Tax Reconciliation
3. Fuel and ROC Reporting
4. Financial Calendar
5. IAS 39 Treatment
6. Power Market
7. Gas Market
8. Coal Market
9. Carbon Market
10. Forward Spread Movements
11. Commodity Price Movements
12. LCPD and IED
13. Carbon Price Floor
14. ROC Banding and CfD Strike Prices
15. Drax Site Development Schematic

**Dust Extraction System – June 2014**



# Appendix 1: Definitions

|                 |   |  |
|-----------------|---|--|
| <b>API2/4/6</b> |   | API2 is the main reference price (including cost, freight and insurance) for steam coal to be delivered to Amsterdam, Rotterdam and Antwerp. API4 is the reference price for steam coal to be delivered free on board ("FOB") to Richards Bay, South Africa. API6 is the reference price for steam coal to be delivered FOB to Newcastle, Australia.                     |
|                 | <b>AVERAGE ACHIEVED PRICE</b>                   | Power revenues divided by volume of net sales (includes imbalance charges).  |
| <b>BM</b>       | <b>BALANCING MECHANISM</b>                      | The mechanism through which the System Operator can call upon additional generation/consumption or reduce generation/consumption, through market participants' bids and offers, in order to balance the system minute by minute.   |
| <b>CESP</b>     | <b>COMMUNITY ENERGY SAVING PROGRAMME</b>        | CESP was created as part of the Government's Home Energy Saving Programme. It required gas and electricity suppliers and electricity generators to deliver energy saving measures to domestic consumers in specific low income areas of Great Britain. CESP came into force on 1 September 2009. The CESP obligation period ran from 1 October 2009 to 31 December 2012. |
| <b>DECC</b>     | <b>DEPARTMENT FOR ENERGY AND CLIMATE CHANGE</b> |  |
|                 | <b>DIRECT INJECTION</b>                         | A process whereby biomass is fed directly (i.e. avoiding the pulverising mills) to the burners situated in the boiler walls.   |
| <b>EBITDA</b>   |   | Profit before interest, tax, depreciation, amortisation and unrealised gains/(losses) on derivative contracts.   |
| <b>ELV</b>      | <b>EMISSION LIMIT VALUES</b>                    | One of the mechanisms available to implement the LCPD. This sets annual limits on the emissions of NO <sub>x</sub> , SO <sub>2</sub> and particulate which will be incorporated into the forthcoming PPC permit.   |
| <b>EUA</b>      | <b>EU ALLOWANCE</b>                             | European Union Allowances, the tradable unit under the EU ETS. Equals 1 tonne of CO <sub>2</sub> .   |
| <b>EU ETS</b>   | <b>EU EMISSIONS TRADING SCHEME</b>              | Trading Scheme within the European Union. The first compliance phase ran from 2005-07, the second compliance phase continued from 2008-12 and the third phase is proposed to run from 2013-2020.   |
| <b>IUK</b>      | <b>INTERCONNECTOR UK</b>                        | Sub sea gas pipeline and terminal facilities providing a bi-directional link between the UK and continental European energy markets.   |
| <b>LCPD</b>     | <b>LARGE COMBUSTION PLANT DIRECTIVE</b>         | European Union Large Combustion Plant Directive sets emission standards for NO <sub>x</sub> , SO <sub>2</sub> and particulate from all Large Combustion Plant (>50MW).   |
| <b>LEC</b>      | <b>LEVY EXEMPTION CERTIFICATE</b>               | Evidence of Climate Change Levy exempt electricity supplies generated from qualifying renewable sources.   |

# Appendix 1: Definitions (cont.)

|                       |  |   |
|-----------------------|--|---|
| <b>LNG</b>            | <b>LIQUIFIED NATURAL GAS</b>                         |   |
| <b>LTIR</b>           | <b>LOST TIME INJURY RATE</b>                         | The frequency rate calculated on the following basis (number of accidents/hours worked * 100,000). Accidents are defined as occurrences where the injured party is absent from work for more than 24 hours.   |
| <b>NERP</b>           | <b>NATIONAL EMISSIONS REDUCTION PLAN</b>             | One of the mechanisms available to implement the LCPD and the one selected by Drax. This sets annual limits on the emissions of NO <sub>x</sub> , SO <sub>2</sub> and particulate which will be incorporated into the forthcoming PPC permit.   |
| <b>NO<sub>x</sub></b> |  | Nitrogen oxides, emissions of which are regulated under the LCPD.   |
| <b>OFGEM</b>          | <b>OFFICE FOR GAS AND ELECTRICITY MARKETS</b>        |   |
|                       | <b>OPTED-IN / OPTED-OUT</b>                          | An opted-in plant is a power station that has elected to comply with the LCPD emissions standards. Opted-out plant has not elected to comply and is therefore only permitted to run for 20,000 hours and must in any event close by the end of 2015.  |
|                       | <b>ADVANTAGED FUELS</b>                              | Fuel that gives a price advantage against standard bituminous coals. Such fuels include, off specification coals and petcoke.   |
| <b>RO</b>             | <b>RENEWABLES OBLIGATION</b>                         | The obligation placed on licensed electricity suppliers to deliver a specified amount of their electricity from eligible renewable sources.   |
| <b>ROC</b>            | <b>RENEWABLES OBLIGATION CERTIFICATE</b>             | The obligation requires licensed electricity suppliers to ensure that specified and increasing amounts of the electricity they supply are from renewable sources. Eligible generators of electricity using renewable energy sources receive a pre-specified number of ROCs per MWh of renewable power generation dependant on date of commission and technology. These certificates can then be traded. |
| <b>ROSPA</b>          | <b>ROYAL SOCIETY FOR THE PREVENTION OF ACCIDENTS</b> |   |
| <b>SNCR</b>           | <b>SELECTIVE NON CATALYTIC REDUCTION</b>             |   |
| <b>SO<sub>2</sub></b> |  | Sulphur dioxide, emissions of which are regulated under the LCPD.   |
| <b>TRIR</b>           | <b>TOTAL RECORDABLE INJURY RATE</b>                  | TRIR is calculated on the following basis (lost time injuries + worse than first aid injuries)/ hours worked * 100,000.   |
| <b>UKCS</b>           | <b>UK CONTINENTAL SHELF</b>                          | Gas reserves found off shore in UK waters.  |
| <b>UK NAP</b>         | <b>UK NATIONAL ALLOCATION PLAN</b>                   | Allocation of UK emissions allowances at the national level to individual sites under EU ETS.   |

# Appendix 2: Tax Reconciliation

## UK CT rates

- 21.5% for 2014 and 23.25% for 2013

## 2014 tax rate guidance

- Close to or just below CT rate (21.5%)

## Tax Reconciliation

| In £m (unless otherwise stated) | Reported   |            | Underlying |            |
|---------------------------------|------------|------------|------------|------------|
|                                 | H1 2014    | H1 2013    | H1 2014    | H1 2013    |
| (Loss) / Profit Before Tax      | (11)       | 206        | 45         | 84         |
| Tax at UK CT rate               | (2)        | 48         | 10         | 19         |
| Adjustment to Prior Year Taxes  | (2)        | (6)        | (3)        | (6)        |
| <b>Tax (Credit) / Charge</b>    | <b>(4)</b> | <b>42</b>  | <b>7</b>   | <b>13</b>  |
| <b>Effective Tax Rate</b>       | <b>n/a</b> | <b>20%</b> | <b>16%</b> | <b>16%</b> |

# Appendix 3: Fuel and ROC Reporting

## Income statement and balance sheet include value of ROCs / LECs generated

### Income statement – cost of fuel

- 2014 £351m (£27.2/MWh), comprising:
  - Cost of coal and biomass
  - Less estimate ROC / LEC value generated

### Balance sheet - ROC / LEC assets

- £237m at 30 June 2014, comprising:
  - Estimate of cumulative ROC / LEC value generated not sold

### Subsequent sale of ROCs / LECs

- Sales value in revenue and receivables
- Original estimate balance sheet value charged to cost of sales

### ROC receivable cash flows

- Options to accelerate ROC cash flows

## H1 2014 Income Statement – Fuel Costs

| Net Fuel Cost Comprises:     | £m    | £/MWh  |
|------------------------------|-------|--------|
| Coal, Carbon Tax and Biomass | 483   | 37.5   |
| ROC / LEC Value Generated    | (132) | (44.3) |

## H1 2014 Balance Sheet – ROC and LEC Assets

| ROC and LEC Assets    | £m   |
|-----------------------|------|
| At 31 December 2013   | 140  |
| ROCs / LECs Generated | 132  |
| Purchased             | 3    |
| Sold or Utilised      | (38) |
| At 30 June 2014       | 237  |

## Appendix 4: Financial Calendar

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| Event                             | Date             |
|-----------------------------------|------------------|
| Announcement of Half Year Results | 29 July          |
| Interim Management Statement      | Mid November     |
| Financial Year End                | 31 December      |
| Announcement of Full Year Results | 24 February 2015 |

## Appendix 5: IAS 39 Treatment

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| Financial Instrument | Location of Gains and Losses in the 2014 Half Year Report |
|----------------------|---|
| Power                | Hedge Reserve   |
| International Coal   | Hedge Reserve and Income Statement                        |
| Financial Coal       | Largely Income Statement                                  |
| Foreign Exchange     | Hedge Reserve and Income Statement                        |
| Carbon               | Hedge Reserve   |

# Appendix 6: Power Market

## UK power market

Power prices weaker in 2014 – driven by gas market

## Dispatch dynamics

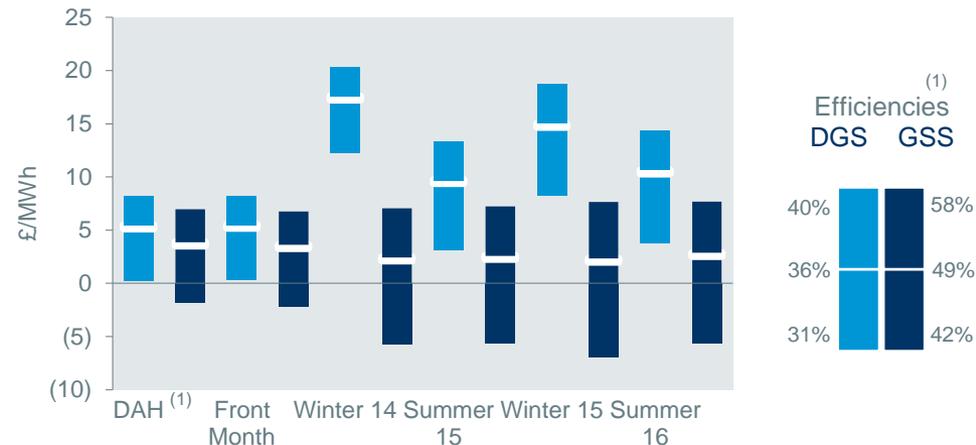
Plant efficiencies significant factor in load profile

- Different load factors for same fuel plant
- Low GSS resulted in gas plant capacity withdrawn / considered for closure
- All opted-out coal plant now closed
  - Ironbridge converted to biomass until Dec 15
- Oil-fired plant closing prior to full utilisation of running hours
  - Littlebrook announced April 15 closure
- Summer overnight change in merit order

Wind capacity / output continues to grow

(1) DGS = dark green spread, GSS = green spark spread, DAH = day ahead  
 Sources for chart: Spectron, Brokered Data, Drax assumptions  
 Based on market prices on 18<sup>th</sup> July 2014

Range of Market DGS and GSS by Efficiency (Baseload)



UK NBP Gas Price



# Appendix 7: Gas Market

## Mild winter across Europe

- UK storage levels above seasonal norms

## UK has witnessed a pick up in LNG deliveries in the near-term

- No guarantee that the UK will continue to receive high LNG volumes

## High storage inventories and strong LNG delivery suppressed Summer 2014 prices

- Spot market down relative to the curve

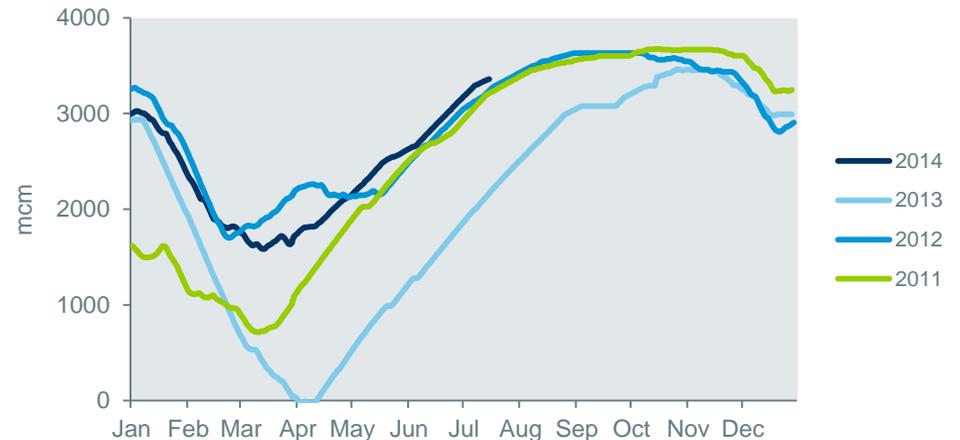
## Longer-term UK gas prices remain strong

- Prices pulled towards oil-indexed European prices to attract imports

## Fukushima impact on global LNG market continues

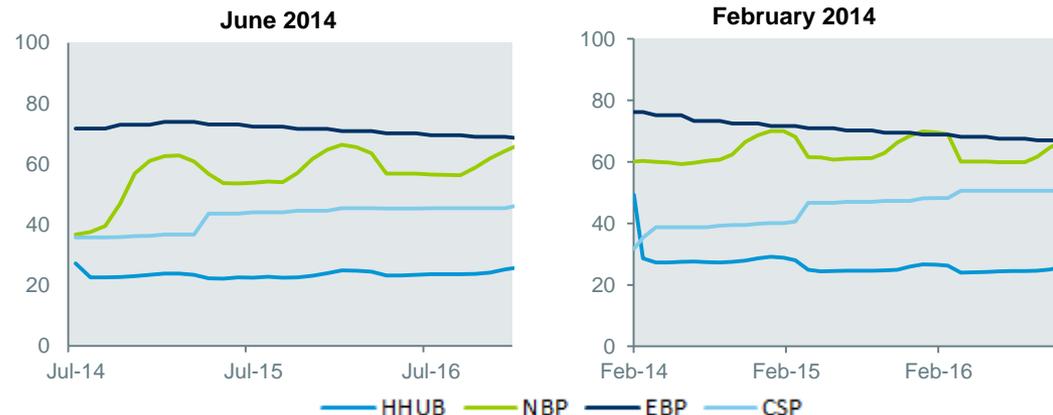
- Japanese nuclear constrained
  - 0 of 54 reactors currently in operation

UK Gas Storage Year on Year



Data Source: Thompson Reuters

NBP, Henry Hub and EBP™ Index Forward Curves



# Appendix 8: Coal Market

## Global steam coal market remains oversupplied

- Prompt prices recently fell to 5 year lows - \$72/t API2
- Some producers have looked to increase production to reduce unit costs

## Chinese steam coal seaborne imports continue to grow, but at slower rate

- Up 13% from Q1-13 to Q1-14
- Stock levels remain high
- Indigenous producers are cutting prices

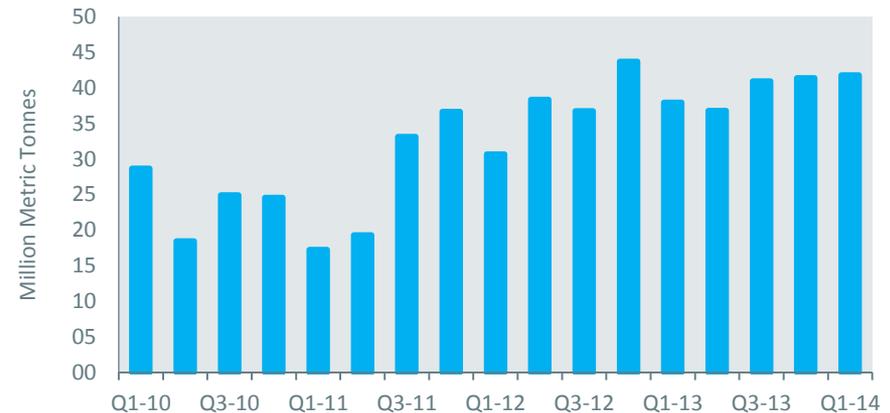
## US exports to EU beginning to fall

- Lower global prices reduce attractiveness of exports
- EU imports from US down 7% in 2013
- A cold winter in US increased US gas price

## UK domestic coal production under pressure from low international prices

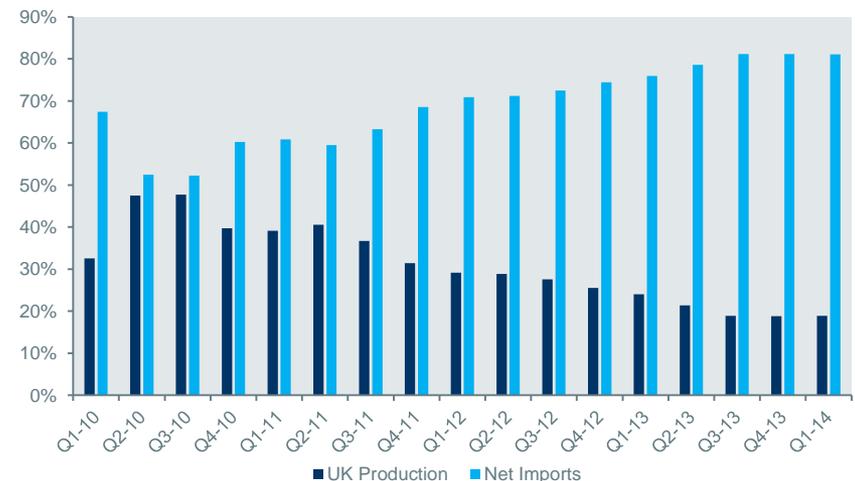
- Indigenous production fell 25% in 2013
- Deep mined production down 34%
- UK production down 27% from Q1-13 to Q1-14
- GBP reached 6 year high against USD

### Chinese Seaborne Steam Coal Imports



Source: IHS CERA's Global Steam Coal Advisory Service

### UK Indigenous Coal Production vs. Net Imports



Source: Digest of UK Energy Statistics (DUKES) 39

# Appendix 9: Carbon Market

## Phase III EUA ETS – recovery from 2013 lows

- Back-loading now approved
  - 900Mt removed between 2014 – 2016
  - Reintroduced back end of decade
- Some economic revival in EU iron and steel production
- All 2013/14 free allowances issued

## Downward pressure remains

- Sales from industrial sectors increase
- Potential for more free allowances between 2015-19
- Lower coal burn may impact demand

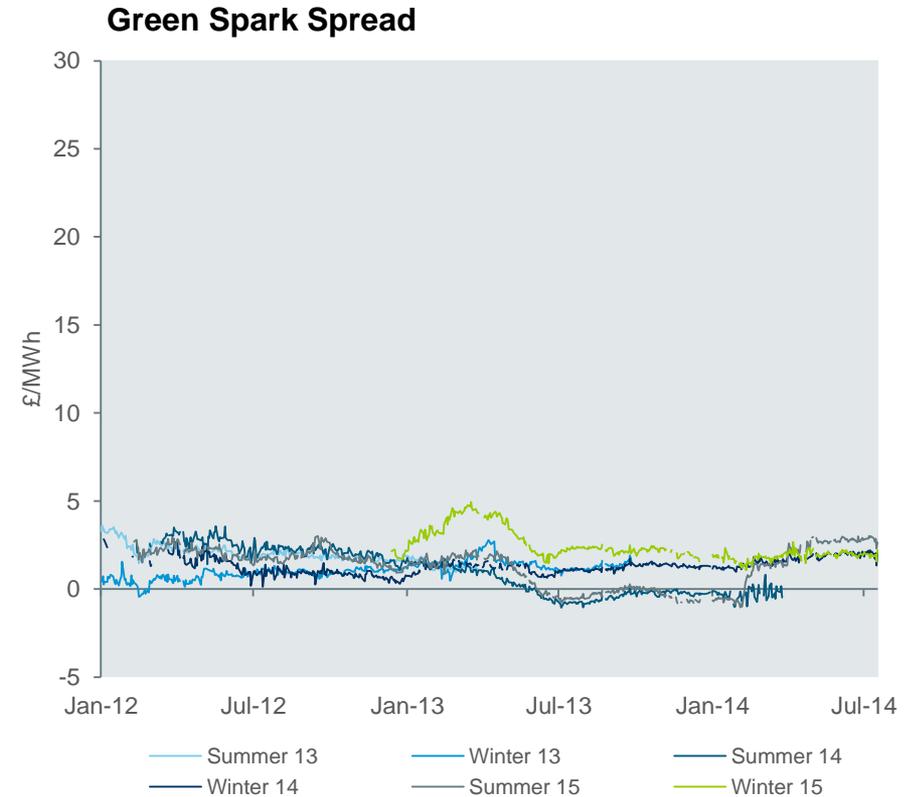
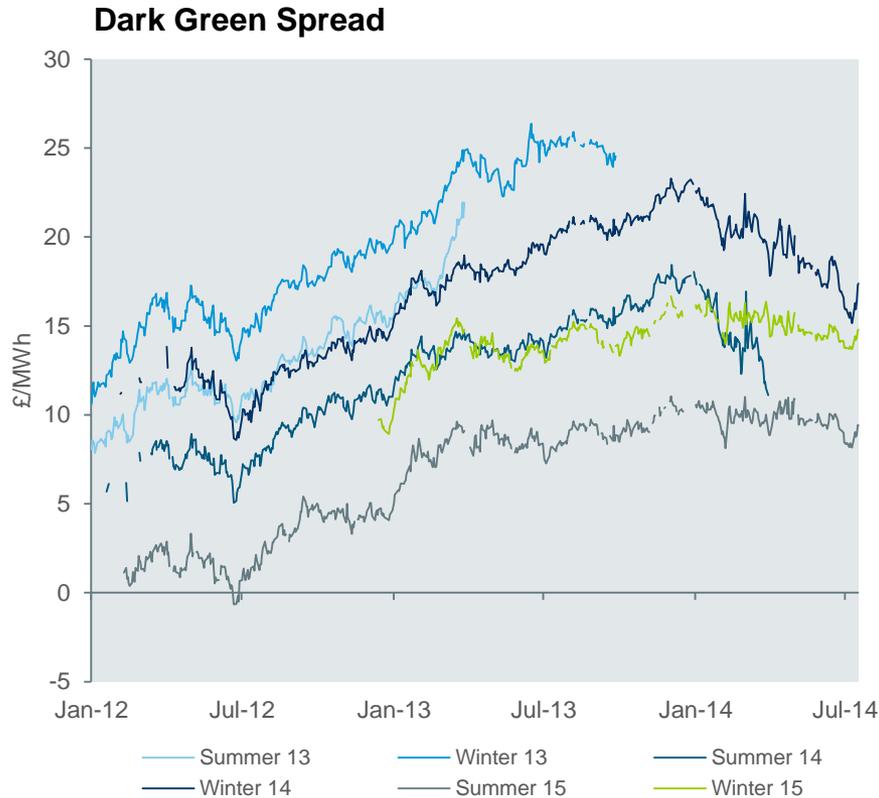
## EU Council continue to review 2030 European Climate and Energy Policy Framework

- EU elections may impact future decisions
- Challenge remains to get all member states to agree targets



Source: ICE ECX  
Prices as of 18<sup>th</sup> July 2014

# Appendix 10: Forward Spread Movements



Source: Drax. Assumed typical efficiencies: Dark Spread - 36%, Spark Spread - 49%.  
Prices as of 18<sup>th</sup> July 2014

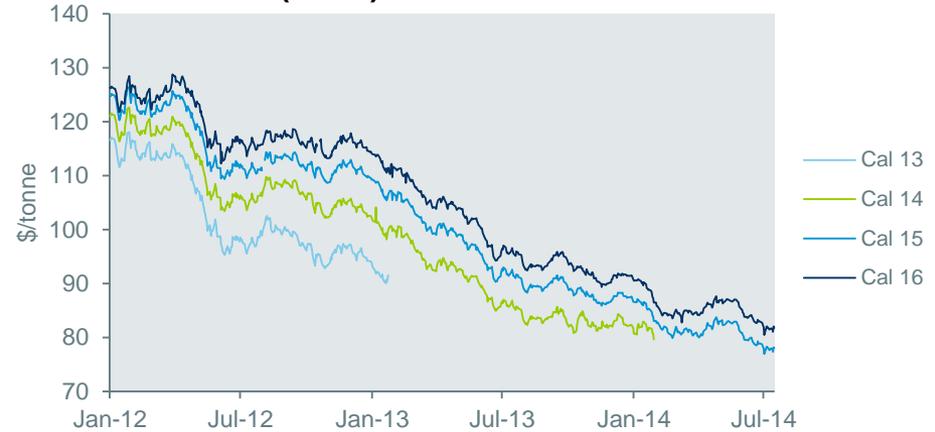
# Appendix 11: Commodity Price Movements

## Power Prices



Sources: Brokered Trades, Spectron

## Coal Prices (API 2)



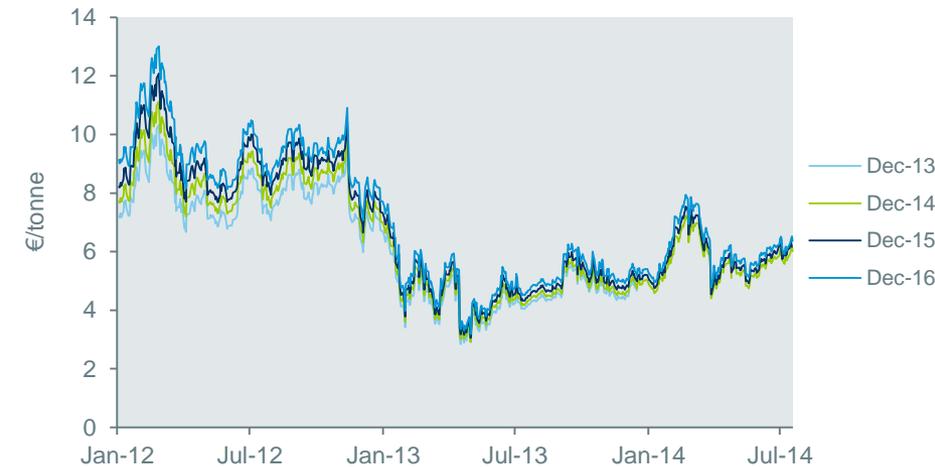
Source: McCloskeys, Brokered Trades

## UK NBP Gas Price



Source: Spectron

## Carbon Prices



Source: ICE ECX

# Appendix 12: LCPD and IED

| Installation   | Operator                   | Fuel | Installed Capacity (MWe) | Capacity Opted In (MW) | Capacity Opted Out (MW) | Opted Out Hours Remaining (Elexon – June 2014) | IED – Stations with Opted Out Units |
|----------------|----------------------------|------|--------------------------|------------------------|-------------------------|--|-------------------------------------|
| Drax           | Drax Power                 | Coal | 3870                     | 3870                   | 0                       |  |                                     |
| Eggborough     | EPL                        | Coal | 1960                     | 1960                   | 0                       |  | ✓                                   |
| Cottam         | EDF Energy                 | Coal | 2008                     | 2008                   | 0                       |  | ✓                                   |
| West Burton    | EDF Energy                 | Coal | 1972                     | 1972                   | 0                       |  | ✓                                   |
| Kingsnorth     | E.ON UK                    | Coal | 1940                     | 0                      | 1940                    | Closed   | N/A                                 |
| Ratcliffe      | E.ON UK                    | Coal | 2000                     | 2000                   | 0                       |  |                                     |
| Ironbridge     | E.ON UK                    | Coal | 970                      | 0                      | 970                     | 47%  |                                     |
| Rugeley        | International Power        | Coal | 996                      | 996                    | 0                       |  |                                     |
| Ferrybridge    | Scottish & Southern Energy | Coal | 1960                     | 980                    | 980                     | U1&2 5%  | ✓                                   |
| Fiddlers Ferry | Scottish & Southern Energy | Coal | 1961                     | 1961                   | 0                       |  |                                     |
| Longannet      | Scottish Power             | Coal | 2304                     | 2304                   | 0                       |  |                                     |
| Cockenzie      | Scottish Power             | Coal | 1152                     | 0                      | 1152                    | Closed   | N/A                                 |
| Uskmouth       | Scottish & Southern Energy | Coal | 393                      | 393                    | 0                       |  |                                     |
| Didcot A       | RWE npower                 | Coal | 1940                     | 0                      | 1940                    | Closed   | N/A                                 |
| Tilbury*       | RWE npower                 | Coal | 1020                     | 0                      | 1020                    | Closed   | N/A                                 |
| Aberthaw       | RWE npower                 | Coal | 1455                     | 1455                   | 0                       |  | ✓                                   |
| Grain          | E.ON UK                    | Oil  | c.1300                   | 0                      | c.1300                  | Closed   | N/A                                 |
| Littlebrook    | RWE npower                 | Oil  | c.1100                   | 0                      | c.1100                  | 87%  |                                     |
| Fawley         | RWE npower                 | Oil  | c.1000                   | 0                      | c.1000                  | Closed   | N/A                                 |
| <b>Total</b>   |                            |      | <b>31301</b>             | <b>19899</b>           | <b>11402</b>            |  |                                     |

Source: Elexon, Oxera, Drax data as at June 2014

\* RWE previous proposed conversion of Tilbury to 100% biomass, but plant now closed

# Appendix 13: Carbon Price Floor

## Introduced in Budget 2011 – effective April 2013

### Climate Change Levy (CCL) amended to indirectly supplement EU ETS carbon price

- Based on fuel (coal) consumption

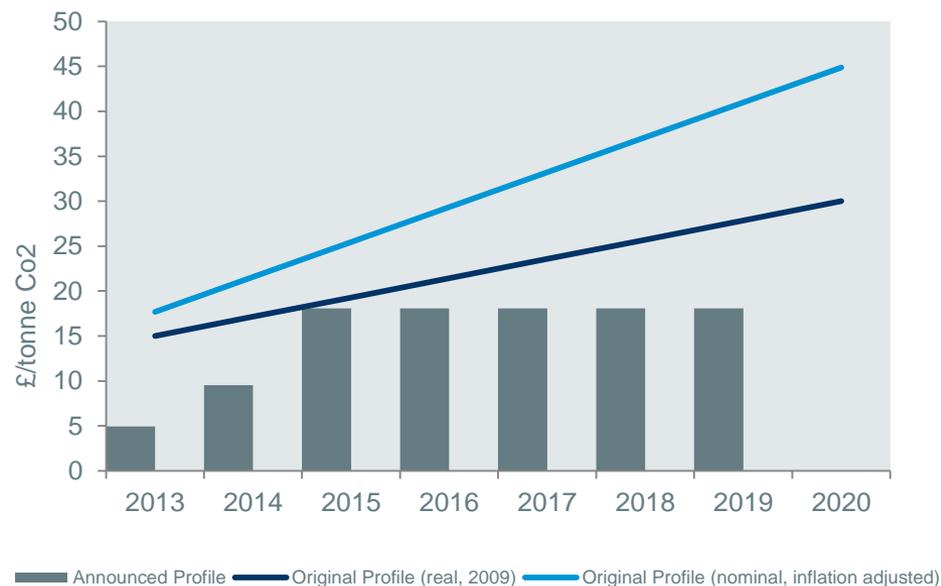
### Tax per tonne CO<sub>2</sub> set annually – 2 years in advance

- Based on difference between government's (HMT) target carbon price trajectory and traded price
- For 2013/14 this is c.£5/tonne CO<sub>2</sub>; equivalent to c.£12/tonne coal
- For 2014/15 this is c. £10/tonne CO<sub>2</sub>; equivalent to c.£23/tonne coal
- For 2015/16 this is £18/tonne CO<sub>2</sub>; equivalent to c.£43/tonne coal

### 2013/14 Budget

- Tax held constant at 2015/16 level for a further four years

HMT Projected Carbon Price Floor to 2020



# Appendix 14: ROC Banding and CfD Strike Prices

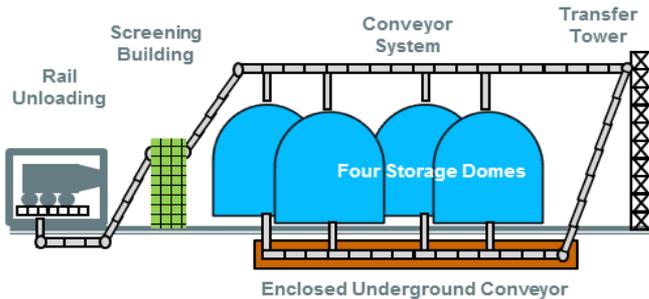
| Technologies                   | ROC Support                      | CfD Support <sup>(2)</sup> |         |         |         |         |
|--------------------------------|----------------------------------|----------------------------|---------|---------|---------|---------|
|                                |                                  | 2014/15                    | 2015/16 | 2016/17 | 2017/18 | 2018/19 |
| Offshore wind                  | 2.0 – 1.8                        | £155                       | £155    | £150    | £140    | £140    |
| Onshore wind                   | 0.9                              | £95                        | £95     | £95     | £90     | £90     |
| Conversion <sup>(1)</sup>      | 1.0                              | £105                       | £105    | £105    | £105    | £105    |
| Enhanced co-firing (85% - 99%) | 0.7 (2013 – 2014)<br>0.9 (2014+) |                            |         |         |         |         |
| Enhanced co-firing (51% - 84%) | 0.6                              |                            |         |         |         |         |
| Standard co-firing (< 50%)     | 0.3 – 0.5                        |                            |         |         |         |         |

(1) Excluding allowance of up to 10% additives

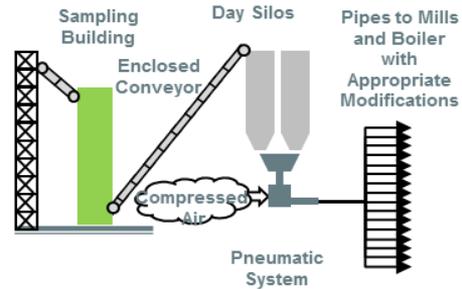
(2) CfD prices in 2012 terms, plus inflation

# Appendix 15: Drax Site Development Schematic

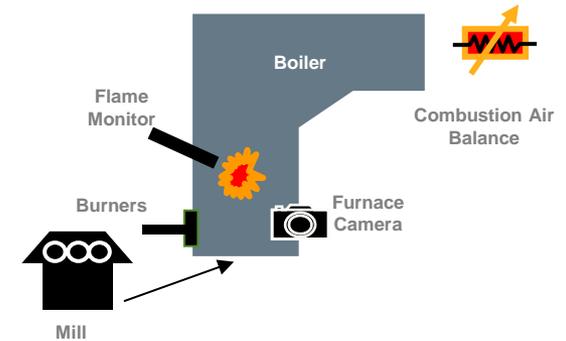
## Rail Unloading and Storage



## Fuel Distribution



## Combustion



# Half Year Results

6 Months Ended 30 June 2014

29 July 2014

