

## **Preliminary Results**

Year Ended 31 December 201

21 February 2012

## Agenda

2011 Business and Market Review Regulation and Biomass Dorothy Thompson Chief Executive

2011 Financial Review Tony Quinlan Finance Director



## 2011 Business Review Dorothy Thompson - Chief Executive

2011 profits maximised by continued operational excellence

Strong hedge for 2012 at good margins; little market visibility beyond 2013

Preparation for biomass expansion now well advanced

Stand ready to expand renewable capacity with appropriate regulatory support

EBITDA £334m

# Underlying Earnings Per Share 55.5p

Total Dividends **27.8p/share** (£101m)

## 2011 Business Review Operational Performance

Maintaining world class standards of safety and availability

88% Availability (2010: 92%)

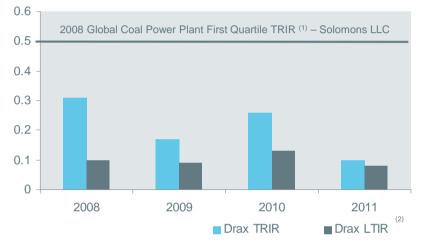
### 5.8% Forced Outage Rate (2010: 3.4%)

- 6.2% Planned Outage Rate (2010: 4.6%)
- Net generation 26.4TWh (2010: 26.4TWh)
- Long-term FOR target of 5%

80% Load Factor (2010: 80%)

High output due to strong availability and plant despatch dynamics





#### Estimated UK Plant Load Factors

Plant	Average 2011 Load Factor <sup>(2)</sup>
Drax	80%
Large nuclear	70%
Gas	40%
Coal (excl. Drax)	34%

 (1) TRIR = Total Recordable Injury Rate, LTIR = Lost Time Injury Rate TRIR first quartile benchmark worsened to 1.2 in 2009 Solomon study
 (2) Dray estimate of average load factor for January to December 2011 based on s

(2) Drax estimate of average load factor for January to December 2011 based on settlement data

## 2011 Business Review Project Activity

### Turbine upgrade now completed for 5 units

- Widened efficiency gap between Drax and 24GW of other coal plant
- Final turbine upgrade in 2012
- Total project cost c.£100m
- Saves 0.5Mt coal and 1Mt CO<sub>2</sub> pa

### Fuel flexibility

- 9% advantaged fuels burn
  - Includes economic biomass
- New advantaged fuels tested

Goole pellet plant operating well

- Strong technical learning
- Cost effective UK sourcing

### Co-firing facility

- Commercial biomass burn of 0.7Mt
- Below 50% of capacity

### Biomass R&D work progressed

- Uneconomic biomass burn of 0.6Mt
- High biomass burn rates now well demonstrated

Drax Fuel Mix (with %'s based on burn by heat)

	2011		2010	
	Tonnes	Mix%	Tonnes	Mix%
Coal	9.1Mt	87%	9.4Mt	88%
Pond Fines	0.6Mt	3%	0.4Mt	3%
Petcoke	0.1Mt	1%	0.2Mt	3%
Biomass	0.7Mt	5%	0.9Mt	6%
Biomass R&D	0.6Mt	4%	-	-

## 2011 Business Review Haven Power Update

### Credit efficient route to market

 Credit risk more controllable than collateral risk

### Targeting 10 - 15TWh business

 Industrial & Commercial ("I&C") and Small & Medium Enterprises ("SME") markets

### Delivering to plan

- Substantial growth
  - 2011 retail sales £275m (2010: £124m)
  - 4.1TWh contracted for next 12 months
  - Sales secured at satisfactory margins and good credit quality
- Financial performance
  - On course for break even from 2013
- Customer satisfaction
  - Ranked no.1 for customer satisfaction in 2011 Datamonitor Survey (SME)

### Implementation of new IT platform on track

#### Capability to support c.20TWh business

- Contract Entry System complete and in service
- New system now c.50% current billings (by value)
   all new I&C customers live on new platform
- Progressing development of SME products
- Continued focus on management information



#### Haven Power Sales (TWh) <sup>(1)</sup>

(2) NBP = Notional Balancing Point

## 2011 Business Review Trading

Positions Under Contract as at 15 February 2012	2012	2013	2014
Power Sales - TWh	22.0	9.1	3.0
Comprising:			
<ul> <li>Fixed price TWh at average achieved price £ per MWh</li> </ul>	15.1@ 54.5	6.5 @ 52.7	0.4 @ 57.6
Fixed margin and structured contracts TWh	6.9	2.6	2.6
<b>Carbon – TWh equivalent</b> Emissions allowances hedged (including UK NAP allocation, market purchases, structured contracts and benefit of biomass co-firing)	21.8	9.1	3.1
Solid Fuel – TWh equivalent At fixed price / hedged (including structured contracts)	22.6	11.1	11.1

### Strong hedge for 2012 at good margins

Alternative trading strategy will be implemented if biomass expansion proceeds

c.20% of forward sales now through Haven Power (Jan 2011: 11%)

## Market Review: Power

### UK power market

 Power prices continue to be driven by gas market

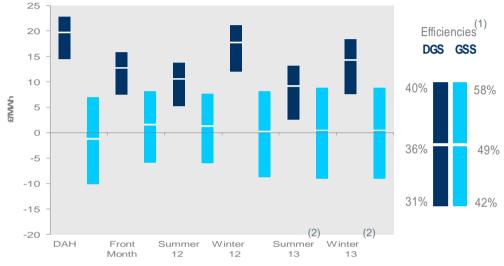
### **Despatch dynamics**

- Plant efficiencies significant factor in load profiles
  - Different load factors for same fuel plant
  - Low GSS <sup>(1)</sup> resulted in gas plant capacity withdrawn / considered for closure

### Increasing system balancing support

- Drax will continue to play a significant role
- Wind output now ranges from nil – 6GW
  - Summer / Winter low demand is c. 20GW / 32GW

Range of Market DGS and GSS by Efficiency (Baseload)



Source: Brokered Data, based on market prices on 10 February 2012

(1) DGS = dark green spread, GSS = green spark spread,

(2) Spreads include carbon price support for Summer and Winter 2013, which adds:

- £11.88/t to the cost of coal, equivalent to c.£4.70/MWh power for 36% efficient plant
- £0.91/MWh to the cost of gas, equivalent to c.£1.90/MWh power for 49% efficient plant

## Market Review: Gas

Q4 UK gas prices lower than July 2011

- Weather 2011 second mildest year
- High storage inventories
- Record LNG imports

But UK prices remain at premium to US

- Continued decline of UKCS
- Exports to the continent through IUK

Feb 2012 UK spot prices at 6 year high

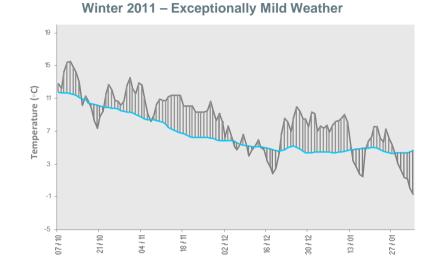
Cold weather across Europe

UK pricing dynamics – complex relationships

- Risk of low LNG availability to the UK due to increasing demand from Asia
- Coal Switching Price (CSP) can act as a floor

UK gas prices trend towards oil indexed European prices to attract imports

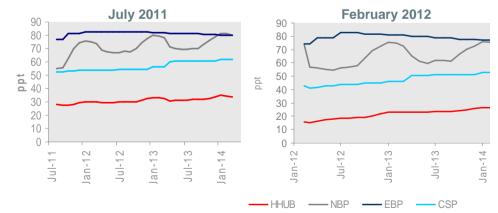
9



Source: Bloomberg, Custom Weather

#### NBP, Henry Hub and EBP<sup>™</sup> Index Forward Curves

-Actual Temperature



Source: European Benchmark Price (EBP<sup>TM</sup> Index): Eclipse Energy Group, NBP and Henry Hub: Bloomberg and brokered Trades. EBP is a trademark owned by Eclipse Energy Group

Historic Norms

## ROC Banding Review Consultation DECC Conclusions and Proposals

Consultation published October 2011

DECC stated intent to minimise impact on customer bills by supporting most cost effective technologies

Explicit recognition of strategic benefits of biomass generation in existing coal stations

- Cost effective, reliable, flexible
- New bands for enhanced co-firing (>15%) and conversion (>90%)
- Proposed support for both set at 1.0 ROC
- Rationale for equal support is progressive unit conversion of large stations like Drax

Proposed support for dedicated biomass set at 1.5 ROCs (reducing to 1.4 in 2016)



"We should [...] increase support for an expansion in sustainable biomass generation, which is reliable and cost effective, and will help us to meet our renewables target."

**Rt Hon David Cameron MP** 

Prime Minister's Questions 25 January 2012

## ROC Banding Review Drax Response and Legislative Timeline

Major investment only with appropriate regulatory support

Drax consultation response – co-firing / conversion:

- At 1.0 ROC Drax can increase co-firing
- Moderate uplift in ROC support required to maximise potential

Drax consultation response – dedicated:

- Investment case highly challenging for independent generators at 1.5 1.4 ROCs
  - Cancelled development at Drax site
  - Exploring options for Immingham project

### ROC Banding Review – expect DECC to finalise bands by Q3 2012

Jan	Spring	Estimate Q3 2012		April	
2012	2012				2013
Consultation Closed	response	Parliamentary approval <sup>(1)</sup>	EU State Aid clearance	Legislation enacted	Implementation of new bands
	published	(1) Renewables Obligation (Amendment) Order 2012			

"We aim to publish the UK Government's response [...] this Spring and legislate in the Summer" DECC, 6 February 2012

### Biomass R&D Work Progress Update

Major investment only with appropriate regulatory support

### Combustion trials

- Testing concentration, reliability and flexibility
- Analysis of complex chemistry of biomass combustion for extensive biomass fuel range
- Further testing required for NOx performance and unusual biomass fuels

### Early results

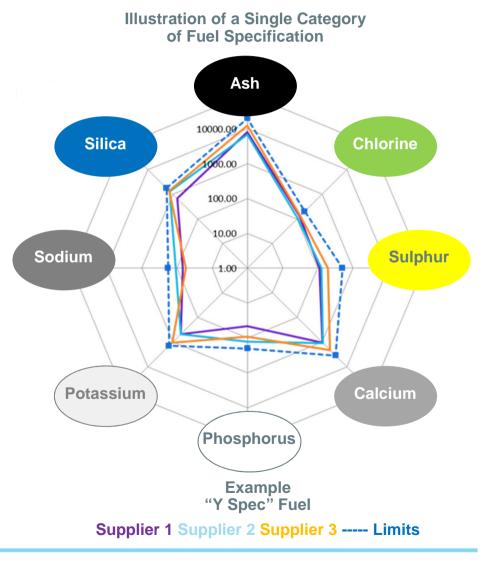
- High biomass burn well demonstrated
- Plant flexibility with biomass well demonstrated
- Advanced understanding of chemistry dynamics

Final results due H2 2012

- Efficiency and load ranges
- Potential biomass fuel optionality
- Biomass / coal NOx performance

Final support level drives fuel envelope

 So determines plant performance and biomass co-firing / conversion capacity



## Biomass Sourcing Supply Chain

Major investment only with appropriate regulatory support



Fibre Harvesting Pellet plant Overseas Overseas Shipping UK port	UK rail
--	---------

Supply chain immature and bespoke

 International port, shipping, UK port and rail facilities under development

Four strands to fuel contracting strategy

- Term pellet contracting from pellet plant owners
- Term fibre contracting from strategic forest partners
  - Investment in pellet plants would provide good fuel security
- Spot and shorter term opportunistic purchases
  - Fuel envelope key
- Development of UK sourcing
  - Likely to be small proportion

     predominantly energy crops

Diverse geographies and fibre sources

• Early concentration in North America

Balancing flexibility with security of supply

Large fibre and pellet contracts typically:

- 7-10 year term
- Fixed price with some inflation and fuel indexation
- Foreign currency based

## Biomass Sustainability 2011 Update

All Drax biomass procured against industryleading sustainability policy, including:

- Life cycle GHG<sup>(1)</sup> emission requirements across entire supply chain
  - 60% reduction against EU Fossil Fuel Comparator
- Land use and biodiversity assessment
- Independent audit of supply chain

Robust UK sustainability legislation in place

- Mandatory standards from 2013
- Implementation rules still to be confirmed

High confidence Drax fuel sourcing strategy will meet current mandatory standards

- Now in 5<sup>th</sup> year of carbon foot-printing
- Significant number of supplier audits completed

Sustainability standards should be grandfathered at time of contracting

- Facilitates term contracting
- Not included in current DECC proposals



## Biomass Capacity Development Capital Investment

Major investment only with appropriate regulatory support

### Phase 1: £50m (in 2012)

## Secure full benefit from existing co-firing facilities

- £50m investment to enable qualification for enhanced co-firing band
  - Test for enhanced co-firing qualification > 15%
- Current co-firing capacity 12.5%
- Modify plant to handle 20% co-firing
  - New batching capability through storage
  - Only burn economic biomass



### Phase 2: Up to a further £450m

## Increase capacity to become predominantly biomass

Further investment dependent on appropriate ROC support and strong investment case

Substantial equipment installations and modifications at Drax site

- Biomass storage facility and rail improvements
- Fuel handling and distribution system
- Milling plant, boiler and other plant changes

Preparation well advanced

- Advance engineering and design work completed for all major components
- Planning permission secured

### Supply chain

 Evaluating investment in pellet plants to secure strategic biomass supplies

## Future Developments IED and CCS

### Industrial Emissions Directive ("IED")

More stringent emissions standards (NOx and SOx) from 2016

EU agreed flexibility measures – better idea of compliance options

Assessment of IED technical solutions also well advanced

- Principal solution drivers fuel mix and plant flexibility
- Very likely to include Selective Catalytic Reduction (SCR)
- Confirmation required over biomass support levels to conclude

Current estimate of compliance cost, including SCR, c.£200m

### Carbon capture and storage ("CCS") – update

Joint application submitted for EU funding (NER-300)

- Drax, Alstom, BOC (a member of the Linde group) and National Grid
- Demonstration project new 426MW oxy-fired CCS plant at Drax site
- Intend to apply for support under UK DECC CCS Demonstration Programme



## Strategic Capital Investment Plan Tony Quinlan – Finance Director

Major investment only with appropriate regulatory support

Committed investment for 2012

- Biomass capacity development (Phase 1)
  - Secure full benefit from existing co-firing facilities

## Further investment dependent on appropriate ROC support and strong investment case

- Biomass capacity development (Phase 2)
  - Increase capacity to predominantly biomass
  - Pellet plants evaluating investment to provide fuel security
- IED compliance plant retrofit

Strong balance sheet provides good foundation for funding requirements

• Net cash Dec 2011: £225m

Other important considerations for funding

- Working capital, foreign exchange, credit rating
- Trading strategy

A strong investment case would support funding requirements

Significantly extends asset life

Components of Potential Capital Investment	£m
Committed investment: Biomass capacity development (Phase 1) • Secure full benefit from existing co-firing	£50m
Dependent on appropriate ROC support and strong investment case: Biomass capacity development (Phase 2)	
<ul> <li>Increase Drax site capacity to predominantly biomass</li> </ul>	c.£250m
<ul> <li>Pellet plants – evaluating investment to provide fuel security</li> </ul>	£150m - £200m
<ul><li>IED compliance</li><li>Estimate of plant retrofit cost</li></ul>	c.£200m

## 2011 Financial Review – Highlights

Net Cash <sup>(2)</sup> £225m
Total Dividends 27.8p/share (£101m)
Final Dividend 11.8p/share (£43m)

(2) Cash of £233m (comprising short-term investments £30m and cash £203m), less borrowings of £8m

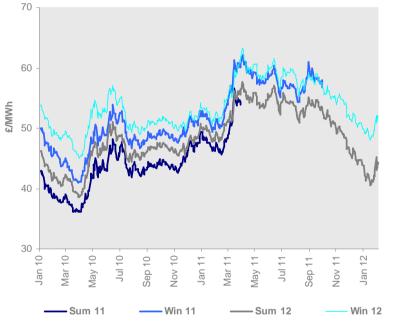
## 2011 Financial Review Summary Income Statement

In £m (unless otherwise stated)	2011	2010	% Year- on-Year
Revenue	1,836	1,648	11%
Cost of Sales	(1,335)	(1,097)	22%
Gross Margin	501	551	(9%)
Operating Costs	(167)	(159)	5%
EBITDA	334	392	(15%)
IAS39 Unrealised Gains / (Losses) on Derivative Contracts	89	(61)	
Depreciation	(57)	(52)	
Operating Profit	366	279	
Net Finance Costs	(28)	(24)	
Profit Before Tax	338	255	
Tax Charge – Before Exceptional Items	(71)	(67)	
Exceptional Tax Credit	198	-	
Reported Earnings	465	188	
Underlying Earnings	202	233	(13%)
Reported Earnings Per Share (pence)	127	52	
Underlying Earnings Per Share (pence)	56	64	(13%)
Total Dividends Per Share (pence)	27.8	32.0	(13%)

## 2011 Financial Review Revenue

In £m (unless otherwise stated)	2011	2010
Total Revenue	1,836	1,648
Wholesale Power Sales	1,471	1,458
Retail Power Sales	275	124
Electrical Output (Net Sales) (TWh)	26.4	26.4
Average Achieved Price (£ per MWh)	55.6	51.6
Ancillary Services	17	35
Other Revenues	8	8
ROC / LEC Sales	65	23
Total Other Revenues	90	66

### Power Prices



Sources: Brokered Trades, Spectron

## 2011 Financial Review ROC Cash Flows and Accounting

ROC generation measured in annual compliance periods (April – March)

ROC cash flows typically 6 months after annual compliance period ends

Impacts working capital

Drax historically recognised ROC benefit in P&L only at time of ROC sale

Similar timing to cash flows

Drax accounting change in 2012 – P&L benefit in period of ROC generation

- Matches ROC support with biomass fuel costs
- ROC value estimated based on market price

No significant impact on earnings profile until ROC support increased (April 2013)

Exploring opportunities to accelerate ROC cash flows

Better match with earnings





Source: e-ROC auction data, Renewables and CHP Registry, Ofgem Renewables Obligation Annual Reports & Information Notes

## 2011 Financial Review Cost of Sales and Fuel Costs

	2011	2010
Total Cost of Sales	£1,335m	£1,097m
Fuel and Carbon Costs	£1,021m	£841m
Cost of Power Purchases	£172m	£165m
Grid Charges and Other Retail Cost of Sales	£142m	£91m
Average Fuel Cost (excl. CO <sub>2</sub> costs)	£33.3/MWh	£25.7/MWh
Average Fuel Cost (incl. CO <sub>2</sub> costs)	£38.7/MWh	£31.9/MWh
Average Cost of Purchased CO <sub>2</sub> Allowances	£12.0/tonne	£12.6/tonne



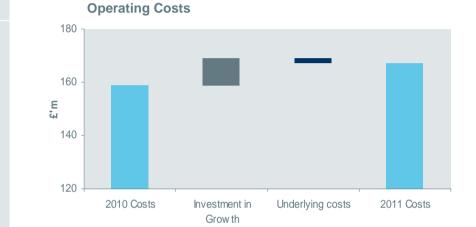
## **2011 Financial Review Operating Costs and Capital Investment**

### Operating Costs - £167m in 2011

- Continued tight cost control
- 2011 total cost increase £8m due to:
  - Underlying costs: down £2m
  - Investment in growth: Haven, biomass R&D: +£10m
- Operating cost guidance for 2012: £205m
  - Double outage and business rates: +£20m (12%)
  - Investment in growth: +£10m (6%)
  - Underlying cost inflation: +£8m (5%)

#### Capital Investment – additions £45m in 2011

- 2011 includes:
  - 5<sup>th</sup> unit turbine upgrade
  - Non-plant projects Haven IT systems
  - Capital investment in biomass R&D: £5m
- Capex guidance for 2012: £100m
  - Incl. c.£50m to secure full benefit from existing co-firing facilities (Phase 1)





#### **Capital Investment**

## 2011 Financial Review

Financial Impact of Biomass R&D Work

Combustion trials: co-firing at high levels with variety of fuels on one unit – total cost £19m

0.6Mt biomass burnt in trials in 2011

### Capitalised costs: £5m

- Re-routed existing direct injection facilities
- New conveyors and fuel handling infrastructure
- Utilised existing coal infrastructure where possible

### Operating costs: £3m

Technical consulting (combustion and chemistry)

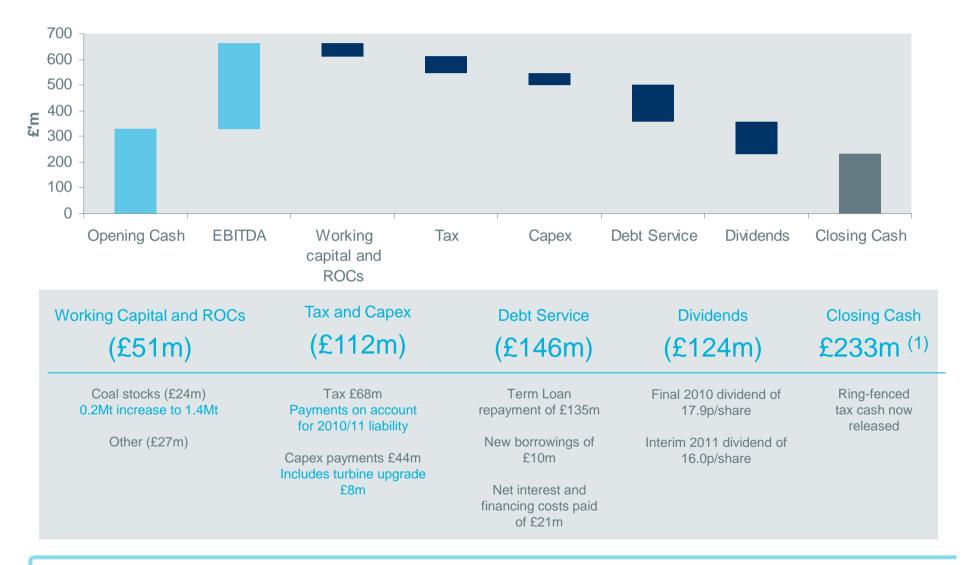
Costs in gross margin: £11m

Primarily uneconomic biomass burn

Original 2011 cost guidance assumed all R&D costs charged to income statement

Costs of Biomass R&D Work	2011
Capitalised Costs – included in asset additions	£5m
Operating Costs – included in P&L	£3m
Costs in Gross Margin	£11m
Total 2011 R&D Costs	£19m

## 2011 Financial Review Cash Flow



### 2011 Financial Review H1 Exceptional Tax Credit and July 2011 Refinancing

### Eurobond tax position agreed with HMRC April 2011 – recovery £180m

Cash saved to Dec 2011 of c.£148m now released

Remaining £32m agreed losses realised over coming years

2011 exceptional tax credit of £198m

- Full recognition of Eurobond agreement
- Also includes £18m other legacy tax issues now resolved (non-cash)

Cash an integral part of capital required for biomass expansion

## Bank refinancing completed in July 2011

Facilities all mature 30 April 2014

- £310m Revolving Credit Facility
  - Available for LCs or working capital
- Maturity of £135m trading facility extended
- Term loan balance redeemed in full from cash

Bank refinancing well supported and generates savings

- Reduced margin from 350bps to 200bps
- Accelerated £3m deferred finance costs from previous facilities in 2011
  - Timing difference only
- Net saving in finance costs: £2m by end 2012

Rating: BBB- stable

## 2011 Financial Review Summary

2011 profitability maximised by continued operational excellence and tight cost control

Strong hedge in place for 2012 at good margins

Little visibility in commodity markets beyond 2013

Strong balance sheet

Net cash of £225m

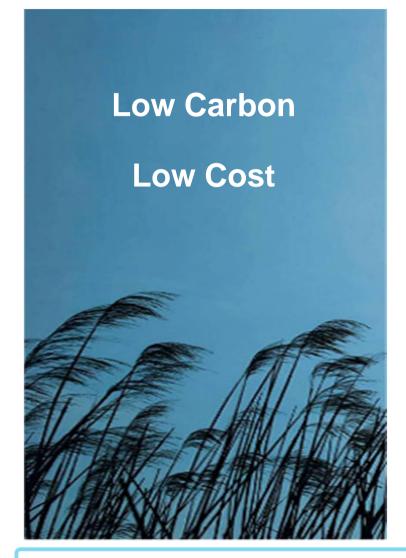
Total dividends for 2011 of 27.8p / share (£101m)

- 50% underlying earnings for the period
- Final dividend of 11.8p / share (£43m)



## Conclusion

Major investment only with appropriate regulatory support



2011 profits maximised by continued operational excellence

Strong hedge for 2012 at good margins; little market visibility beyond 2013

Preparation for biomass expansion now well advanced

Stand ready to expand renewable capacity with appropriate regulatory support



## Appendices

- 1. Definitions
- 2. Financial Calendar
- 3. IAS39 Treatment
- 4. Commodity Markets
- 5. Gas Market
- 6. Coal Market
- 7. Carbon Market
- 8. Carbon Price Support
- 9. UK Generation Capacity
- 10. Biomass Development
- 11. Biomass Fuels
- 12. Tax Account Reconciliation
- 13. ROC Banding Review Proposed Bands
- 14. ROC Mechanics
- 15. Cost Benchmarking



## Appendix 1: Definitions

API2/4/6		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.
	AVERAGE ACHIEVED PRICE	Power revenues divided by volume of net sales (includes imbalance charges).
ВМ	BALANCING MECHANISM	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.
CESP	COMMUNITY ENERGY SAVING PROGRAMME	CESP has been created as part of the Government's Home Energy Saving Programme. It requires 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 will run from 1 October 2009 to 31 December 2012.
DECC	DEPARTMENT FOR ENERGY AND CLIMATE CHANGE	
	DIRECT INJECTION	A process whereby biomass is fed directly (i.e. avoiding the pulverising mills) to the burners situated in the boiler walls.
EBITDA		Profit before interest, tax, depreciation, amortisation, gain/(loss) on disposal of fixed assets and unrealised gains/(losses) on derivative contracts.
ELV	EMISSION LIMIT VALUES	One of the mechanisms available to implement the LCPD. This sets annual limits on the emissions of $NO_X$ , $SO_2$ and particulate which will be incorporated into the forthcoming PPC permit.
EUA	EU ALLOWANCE	European Union Allowances, the tradable unit under the EU ETS. Equals 1 tonne of $CO_2$ .
EU ETS	EU EMISSIONS TRADING SCHEME	Trading Scheme within the European Union. The first compliance phase is from 2005-07, the second compliance phase continues from 2008-12 and the third phase is proposed to run from 2013-2020.
IUK	INTERCONNECTOR UK	Sub sea gas pipeline and terminal facilities providing a bi-directional link between the UK and continental European energy markets.
LCPD	LARGE COMBUSTION PLANT DIRECTIVE	European Union Large Combustion Plant Directive sets emission standards for $NO_X$ , $SO_2$ and particulate from all Large Combustion Plant (>50MW).
LEC	LEVY EXEMPTION CERTIFICATE	Evidence of Climate Change Levy exempt electricity supplies generated from qualifying renewable sources.

## Appendix 1: Definitions

LNG	LIQUIFIED NATURAL GAS	
LTIR	LOST TIME INJURY RATE	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.
NERP	NATIONAL EMISSIONS REDUCTION PLAN	One of the mechanisms available to implement the LCPD and the one selected by Drax. This sets annual limits on the emissions of $NO_X$ , $SO_2$ and particulate which will be incorporated into the forthcoming PPC permit.
NOx		Nitrogen oxides, emissions of which are regulated under the LCPD.
OFGEM	OFFICE FOR GAS AND ELECTRICITY MARKETS	
	OPTED- IN / OPTED-OUT	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.
	POND FINES	Coal dust and waste coal from the cleaning and screening process which can be used for coal-fired power generation.
RO	RENEWABLES OBLIGATION	The obligation placed on licensed electricity suppliers to deliver a specified amount of their electricity from eligible renewable sources.
ROC	RENEWABLES OBLIGATION CERTIFICATE	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 currently receive 1 ROC for each MWh of electricity generated from renewable sources. These certificates can then be traded.
ROSPA	ROYAL SOCIETY FOR THE PREVENTION OF ACCIDENTS	
SCR	SELECTIVE CATALYTIC REDUCTION	Converting nitrogen oxides with the aid of a catalyst into diatomic nitrogen and water. A gaseous reductant, typically anhydrous ammonia, is added to a stream of flue gas and absorbed onto a catalyst.
SO <sub>2</sub>		Sulphur dioxide, emissions of which are regulated under the LCPD.
TRIR	TOTAL RECORDABLE INJURY RATE	TRIR is calculated on the following basis (lost time injuries + worse than first aid)/hours worked * 100,000.
UKCS	UK CONTINTENTAL SHELF	Gas reserves found off shore in UK waters.
UK NAP	UK NATIONAL ALLOCATION PLAN	Allocation of UK emissions allowances at the national level to individual sites under EU ETS.

## Appendix 2: Financial Calendar

Event	2012
Annual General Meeting	18 April
Ordinary shares marked ex-dividend	25 April
Record date for final dividend	27 April
Final dividend payment date	11 May
Interim Management Statement	Mid May
Announcement of Half Year Results	31 July
Interim Management Statement	Mid November
Financial year end	31 December

## Appendix 3: IAS39 Treatment

Financial Instrument	Location of gains and losses in the 2011 Annual Report
Power	Hedge Reserve
International Coal	Hedge Reserve and Income Statement
Financial Coal	Largely Income Statement
Foreign Exchange	Hedge Reserve and Income Statement
Interest Rate Swaps	Largely Income Statement
Carbon	Hedge Reserve



## Appendix 4: Commodity Markets UK Forward Spread Movements – to 10 February 2012

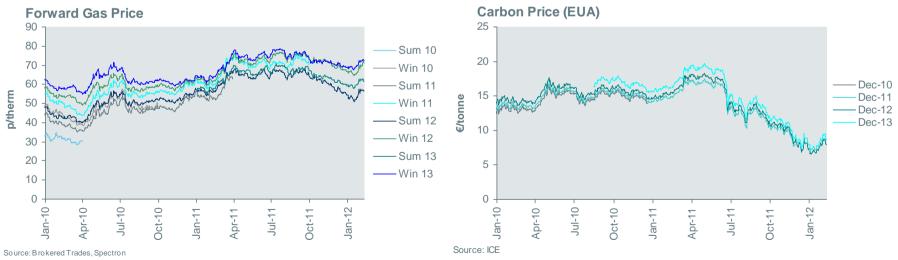


Source: Drax. Assumed typical efficiencies: Dark Spread - 36%, Spark Spread - 49%

## Appendix 4: Commodity Markets Commodity Price Movements – to 10 February 2012

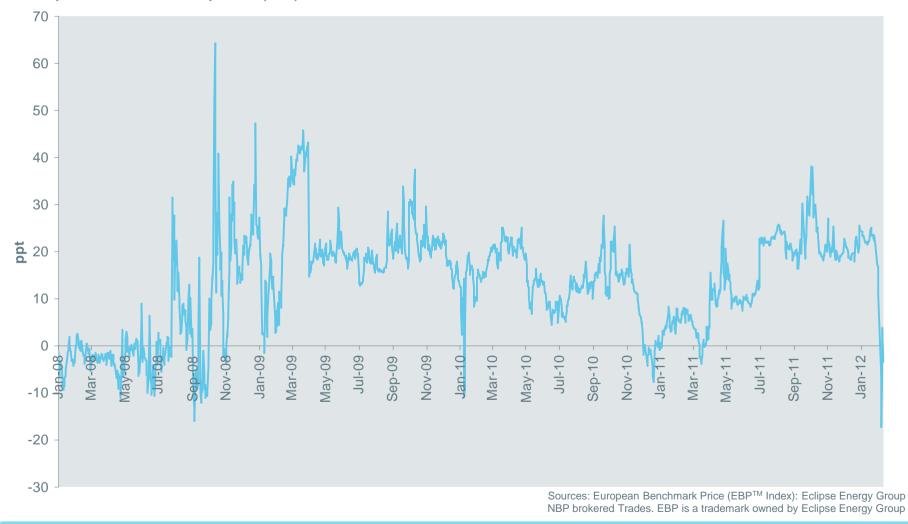






# Appendix 5: Gas Market European to UK Gas Price Differentials





### Appendix 6: Coal Market Steam Coal

International traded market (c.0.8bnt) – small relative to world consumption (> 7bnt<sup>(1)</sup>)

Asian demand growth continues to impact pricing dynamics

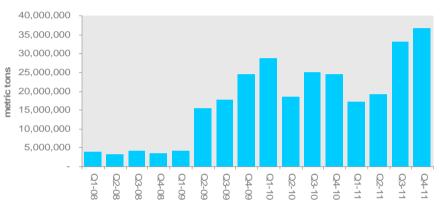
- China again a big influence
  - Consumption estimate in excess of 3bnt<sup>(1)</sup>
  - Small supply / demand differential – big impact on traded market
- 2011 Chinese seaborne imports 106Mt<sup>(1)</sup> – up 10% YoY
  - Set to overtake Japan as world's largest importer
  - Driven by attractive prices vs. domestic market
  - H2 imports up 41%<sup>(1)</sup> as global steam coal prices fell

US coal export volumes continue to grow

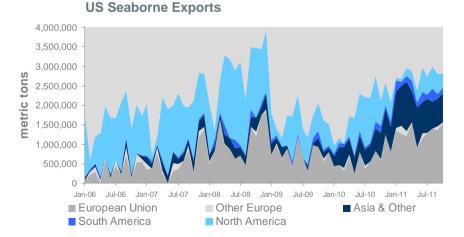
 Targeting Europe and Asia, with US gas market well supplied

Mild winter in Europe - healthy stocks

#### **Quarterly Chinese Seaborne Imports**



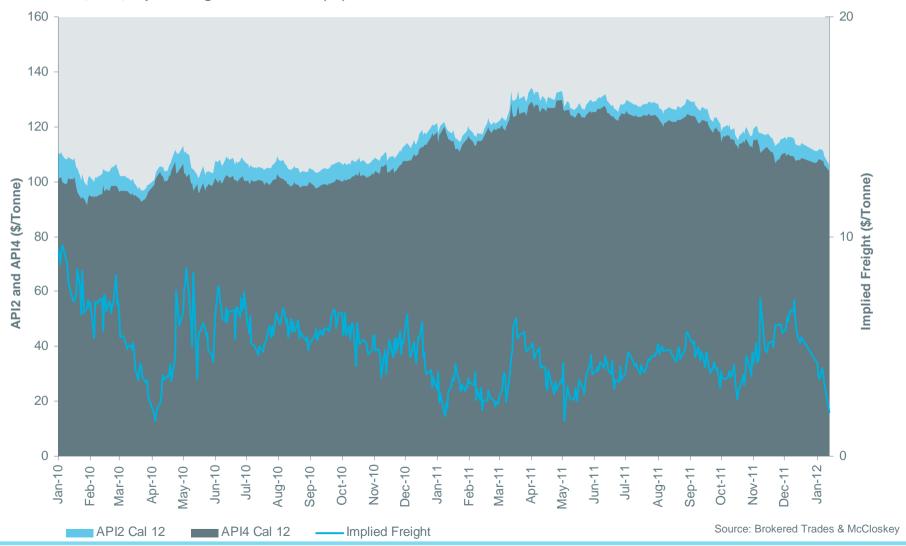
Source: IHS CERA's Global Steam Coal Advisory Service



Source: (1) and chart: IHS CERA's Global Steam Coal Advisory Service

# **Appendix 6: Coal Market**





# **Appendix 7: Carbon Market**

#### Lowest EUA price for over 2 years

 Certified Emission Reductions (CER) below perceived floor price

#### Driven by expected Phase II over supply

- Fear over European economies
- New Entrant Reserve (300Mt) now coming to market
- Continued high CER issuance
- Forecast growth in Emission Reduction Units (ERU) issuance

Phase II surplus bankable into Phase III (2013 to 2020)

Considerable opposition across Europe to attempts to increase Phase III ambition beyond 20%

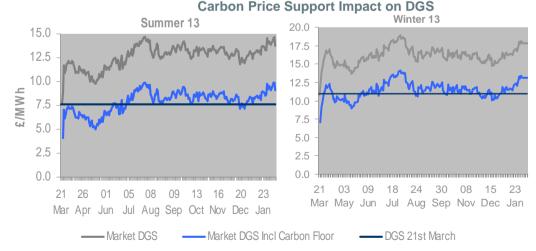
Possible withdrawal of EUAs

Introduction of UK CO<sub>2</sub> price support





Source: ICE



Carbon price support adds £11.88/t to the cost of coal from April 2013

# **Appendix 8: Carbon Price Support**

Introduced in Budget 2011 – effective April 2013

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

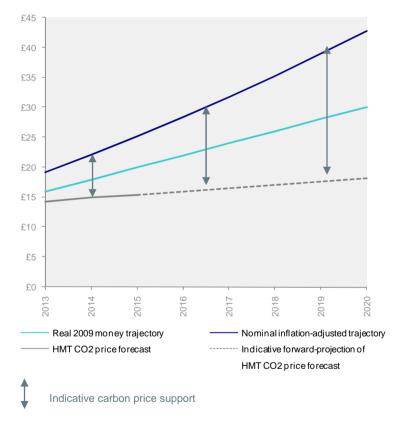
Based on fuel (coal) consumption

Tax per tonne set annually

- 2 years in advance
- Based on difference between Government's (HMT) target carbon price trajectory and traded price
- For 2013 this is £19 £14 = £5/tonne carbon; equivalent to £12/tonne coal
- HMT indicative 2014/15 rates were initially £7 and £10/tonne carbon<sup>(1)</sup> – now expected to be higher

Dialogue with HMT over assumptions for carbon emissions from coal on-going





(1) Based on carbon prices at time of publication (March 2011)

# Appendix 9: UK Generation Capacity Summary of LCPD Elections

Installation	Operator	Fuel	Installed Capacity (MWe)	Capacity Opted In (MW)	Capacity Opted In NERP (MW)	Capacity Opted In ELV (MW)	Capacity Opted Out (MW)	Opted Out Hours Remaining (Elexon – 30 Jan 2012)
Drax	Drax Power	Coal	3870	3870	3870	0	0	
Eggborough	EPL	Coal	1960	1960	1960	0	0	
Cottam	EDF Energy	Coal	2008	2008	0	2008	0	
West Burton	EDF Energy	Coal	1972	1972	0	1972	0	
Kingsnorth	E.ON UK	Coal	1940	0	0	0	1940	26%
Ratcliffe	E.ON UK	Coal	2000	2000	0	2000	0	
Ironbridge	E.ON UK	Coal	970	0	0	0	970	58%
Rugeley	International Power	Coal	996	996	0	996	0	
Ferrybridge	Scottish & Southern Energy	Coal	1960	980	0	980	980	U1&2 45%
Fiddlers Ferry	Scottish & Southern Energy	Coal	1961	1961	0	1961	0	
Longannet	Scottish Power	Coal	2304	2304	2304	0	0	
Cockenzie	Scottish Power	Coal	1152	0	0	0	1152	U1&2 16% U3&4 21%
Uskmouth	Scottish & Southern Energy	Coal	393	393	0	393	0	
Didcot A	RWE npower	Coal	1940	0	0	0	1940	46%
Tilbury*	RWE npower	Coal	1020	0	0	0	1020	BOIL 7&8 39% BOIL 9&10 37%
Aberthaw	RWE npower	Coal	1455	1455	0	1455	0	
Grain	E.ON UK	Oil	c.1300	0	0	0	c.1300	87%
Littlebrook	RWE npower	Oil	c.1100	0	0	0	c.1100	87%
Fawley	RWE npower	Oil	c.1000	0	0	0	c.1000	92%
Total			31301	19899	8134	11765	11402	

Source: Elexon, Oxera, Drax data as at July 2011

\* RWE has announced conversion of Tilbury to 100% biomass

# Appendix 10: Biomass Development



Over the past 9 years Drax has made substantial investment in:

- Biomass sustainability
- Biomass processing capability
- Biomass generating capability

# Appendix 11: Biomass Fuels

#### Forestry Residuals



Forestry thinnings

Harvesting residues



Chips/ Sawdust



Bark



Wood pellets

Waste wood

### Agricultural By-products



Wheat/Oat straw



Sunflower husks



Sugarcane bagasse



Rice straw





Nut

shell



**Short Rotation Forestry** (e.g. Eucalyptus)



Mixed waste paper & other organic materials



**Miscanthus &** switchgrass

Bamboo







Energy Crops & Organic Waste



**Short Rotation Coppice** (e.g. Willow)

**Drax Group plc** Preliminary Results - Year Ended 31 December 2011 44

# **Appendix 12: Tax Account Reconciliation**

# Eurobond tax position agreed with HMRC April 2011 – recovery £180m

- Cash saved to Dec 2011 of c.£148m released
- Remaining £32m agreed losses realised over coming years

2011 exceptional tax credit of £198m

- Full recognition of Eurobond agreement
- Also includes £18m other legacy tax issues now resolved (non-cash)

In £m	Current tax	Deferred tax	Total
Tax liability at 31 December 2010	190	244	434
Tax paid – 2011	(68)	-	(68)
Tax charge – 2011	62	10	72
Exceptional tax credit – Eurobond	(135)	(45)	(180)
Exceptional tax credit – Other legacy issues	(15)	(3)	(18)
Total exceptional tax credit	(150)	(48)	(198)
Tax on items recognised in equity – 2011	-	(2)	(2)
Tax liability at 31 December 2011	34	204	238

# Appendix 13: ROC Banding Review – Proposed Bands

Technologies	Level of ROCs / MWh				
rechnologies	Current Band	DECC Proposal			
Offshore wind	2.0	2.0 - 1.8			
Onshore wind	1.0	0.9			
Co-firing (< 15%)	0.5	0.5			
Enhanced co-firing (>15%)	n/a	1.0			
Conversion (>90%)	n/a	1.0			
Dedicated biomass	1.5	1.5 – 1.4			

Proposal is for all support levels to be grandfathered for the life of the RO at point of accreditation Source: Renewables Obligation Banding Review 2013-17 – Public Consultation

# **Appendix 14: ROC Mechanics**

Renewables Obligation (RO) – suppliers must source increasing volume of renewable power

Obligation can be met in two ways;

Surrender ROCs or pay a buy-out

All buy-out funds recycled to suppliers that surrender ROCs

 Buy-out is mandated price with RPI indexation; currently c. £39/MWh

Mechanism in place to ensure:

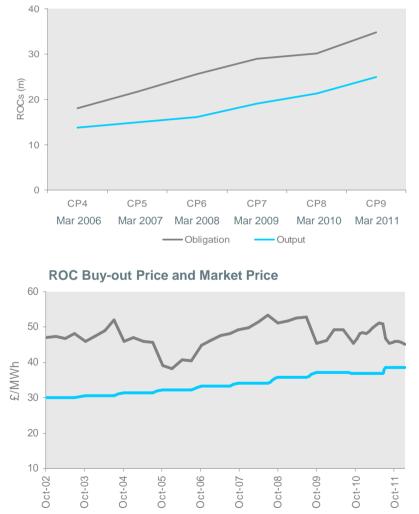
- Obligation increases annually; and
- Obligation > expected ROC production

#### Cash flows

- Obligation is annual (April March)
- ROCs surrendered or buy-out paid by 1 September following March year end
- Recycled funds paid out in October

#### **Renewable Obligation and Output**

Market Price



Source:: e-ROC auction data, Renewables and CHP Registry, Ofgem Renewables Obligation Annual Reports & Information Notes

**Buv-out Price** 

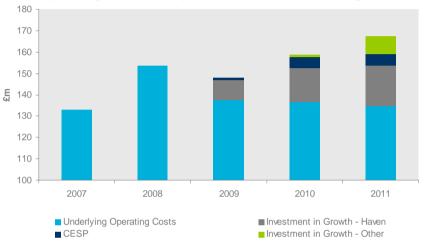
# **Appendix 15: Cost Benchmarking**

Benchmarking demonstrates careful cost management

- Cost per generating unit improvement from 3<sup>rd</sup> to 1<sup>st</sup> quartile in 2009 study
- Remain 1<sup>st</sup> guartile in 2011 update - aligned with global best performers

Improvements in cost control not detrimental to plant performance

**Operating Cost Development (normalised for outages)** 





International Operating Cost Benchmarking Study

Source: Solomon Associates Power Generation Comparative Performance Analysis

# Disclaimer

These presentation slides (and any subsequent discussions arising thereon) may contain certain statements, statistics and projections that are or may be forward-looking. The accuracy and completeness of all such statements, including, without limitation, statements regarding the future financial position, strategy, projected costs, plans and objectives for the management of future operations of Drax Group plc ("Drax") and its subsidiaries (the "Group") are not warranted or guaranteed. By their nature, forward-looking statements involve risk and uncertainty because they relate to events and depend on circumstances that may occur in the future. Although Drax believes that the expectations reflected in such statements are reasonable, no assurance can be given that such expectations will prove to be correct. There are a number of factors, many of which are beyond the control of the Group, which could cause actual results and developments to differ materially from those expressed or implied by such forward-looking statements. These factors include, but are not limited to, factors such as: future revenues being lower than expected; increasing competitive pressures in the industry; and/or general economic conditions or conditions affecting the relevant industry, both domestically and internationally, being less favourable than expected. We do not intend to publicly update or revise these projections or other forward-looking statements to reflect events or circumstances after the date hereof, and we do not assume any responsibility for doing so.

In making these presentation slides available, Drax makes no recommendation to buy, sell or otherwise deal in shares in the Group or in any other securities or investments whatsoever, and you should neither rely nor act upon, directly or indirectly, any of the information contained in these presentation slides in respect of any such investment activity. Past performance is no guide to future performance. If you are considering engaging in investment activity, you should seek appropriate independent financial advice and make your own assessment.

Recipients in jurisdictions outside the United Kingdom should inform themselves about and observe any applicable legal or regulatory requirements in relation to the distribution or possession of these presentation slides to or in that jurisdiction. In this respect, neither Drax nor any of its connected persons accepts any liability to any person in relation to the distribution or possession of these presentation slides to or in any such jurisdiction.

By accepting these presentation slides, you agree to be bound by the above conditions and limitations.



# **Preliminary Results**

Year Ended 31 December 2011

21 February 2012

