Half Year Results

6 Months Ended 30 June 2015

28 July 2015

Agenda

Operations and Business Review

Dorothy Thompson

Chief Executive

Financial Review

Michael Scott

Interim Finance Director

UK Generation Challenges and Biomass

Dorothy Thompson

Overview

Dorothy Thompson – Chief Executive

Drax Power

Good operations

Increasing biomass generation

Continued weak commodity markets

Haven Power

Delivering sales growth target

Drax Biomass

Pellets produced and shipped

EBITDA

£120m

Underlying Earnings Per Share

10.2p

Interim Dividend

5.1p/share (£21m)

Operations and Business Review

Safety and Sustainability

Safety

Maintaining very good safety performance

- Strong UK performance
- Improved US performance

Sustainability

All Drax biomass procured against robust industry leading sustainability policy

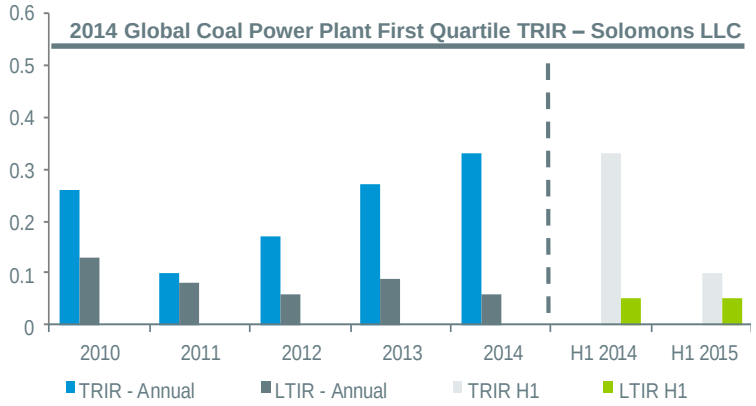
- Fully compliant in 2014
- Delivering > 80% carbon lifecycle savings vs. coal
- Thorough PwC independent audit process

DECC introducing mandatory standards from December 2015

Sustainable Biomass Partnership

- Industry sustainability standard launched in Q1 2015
  - Framework of standards and independent certification procedures for large biomass users
  - To be fully compliant with UK mandatory standards

Safety Performance



TRIR = total recordable injury rate, LTIR = lost time injury rate

Drax Power – Generation

Generation

- 37% of generation from biomass in H1 2015
- Third biomass unit now operating with over 85% biomass burn
- First biomass unit major outage underway

Fuel procurement

- Increase in international (low nitrogen) coal
- Good progress with near-term biomass volumes
- Lower biomass volumes contracted from 2016
  - CfD would underpin acceleration of long-term supply chain development

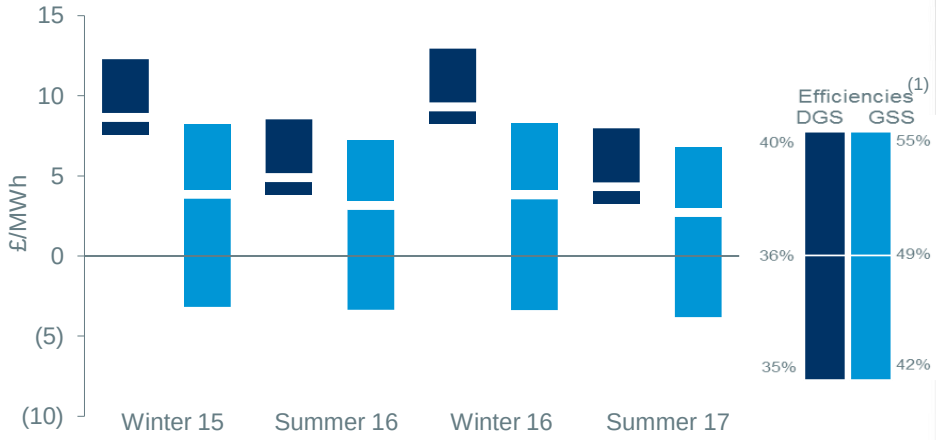
Commodity markets

- Continued weak commodity markets
- Low gas prices – power markets remain weak
- International coal remains weak

Generation by Fuel Type

Generation (Net Sales)	H1 2015 TWh	H1 2015 %	H1 2014 TWh	H1 2014 %
Coal	8.8	63%	9.9	77%
Biomass	5.2	37%	3.0	23%
Total	**14.0**		**12.9**	

Range of Fossil Fuel Spreads by Efficiency (Baseload)



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

Sources: Spectron, Brokered Data, Drax assumptions, based on market prices on 21st July 2015

Drax Power – Regulation

Biomass support

- Climate Change Levy (CCL) exemption removed
  - Effective 1 August, limited transitional relief
- EU State aid clearance process for third unit CfD continuing
  - Contract notified by Government to EU in April 2015
  - Full conversion expected to follow State aid decision
- ROC grandfathering consultation concluded
  - Removal of grandfathering rights for future biomass units, as expected

Capacity market

- Contracts secured for 2018/19
  - Two coal units c.£10m pa per unit (1 year contract)
- Assessing strategy for 2019/20 auction
  - Pre-qualification due 14 August
  - Required derated capacity is 45.4GW
    - 2014 – 49.3GW procured including 5.6GW on 15 year contracts

Department of Energy & Climate Change

"…we can confirm that Government remains committed to sustainable biomass generation, which is an important part of the UK's energy mix…"

Department of Energy and Climate Change

Changes to grandfathering policy with respect to future biomass co-firing and conversion projects in the Renewables Obligation

22 July 2015

Haven Power – Retail

Credit-efficient route to market

Retail sales 6.8TWh[1] (H1 2014: 5.6TWh)

- I&C and SME markets[2]
- 13TWh contracted for next 12 months
- Retail sales £629m (H1 2014: £513m)

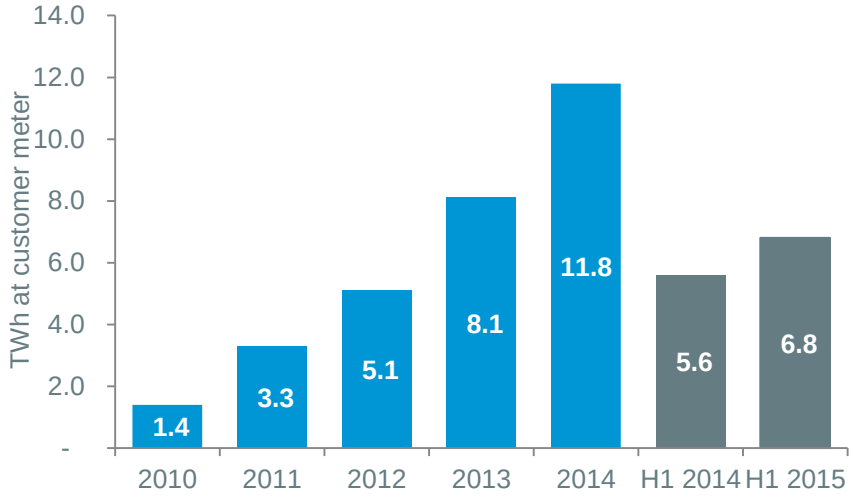
H1 2015 performance

- Good progress with large contracts
- Continued strong I&C renewal performance
- Credit quality remains good with low bad debt experience
- Consistent strong service performance
  - SME supplier of the year award

Regulation

- Reviewing market strategy following LEC changes
- CMA – no significant issues with vertical integration

Haven Power Sales



1) **At customer meter**
2) **I&C = Industrial and Commercial, SME = Small and Medium Enterprises**

Drax Biomass – Biomass Self-supply

US Gulf

Port facility

- Baton Rouge – 3Mt pa export facility
- Fully commissioned and operational

Pellet plants

- Morehouse 450kt pa and Amite 450kt pa
- From Q1 pellets produced and shipped to UK
- Morehouse fully commissioned and operational
- Amite operational – final commissioning expected August
- Supplying first and second converted units

Continuing to evaluate additional self-supply options

- 3rd pellet plant – 500kt pa

Amite Plant

Baton Rouge Port Facility

Financial Review

Michael Scott

H1 2015 Financial Highlights

EBITDA

£120m (H1 2014: £102m)

Net Debt(2)

£40m (December 2014: £99m)

Underlying EPS(1)

10.2p (H1 2014: 9.4p)

Interim Dividend

5.1p (£21m) (H1 2014: 4.7p, £19m)

H1 2015

- Good operations
- Increasing biomass generation
- Increasing cost of UK carbon tax
- Continued weak commodity markets
- Regulatory challenges
- Healthy cash flow and strong balance sheet

1) **Excludes unrealised loss on derivative contracts of £3m and the associated tax effect**
2) **Cash and short-term investments of £282m less borrowings of £322m**

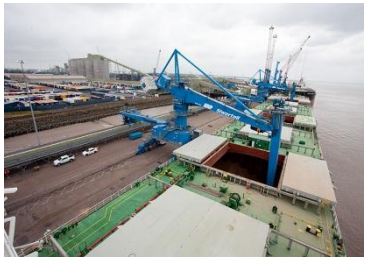
Group Income Statement

Income Statement	H1 2015 £m	H1 2014 £m	▲%
Revenue	1,511	1,257	
Gross Profit	234	204	
EBITDA	**120**	**102**	**18%**
Depreciation	(50)	(42)	
Net Finance Costs	(14)	(15)	
Underlying Profit Before Tax	**56**	**45**	
Underlying Tax Charge	(15)	(7)	
Underlying Tax Rate (%)	*26%*	*16%*	
Underlying Earnings	**41**	**38**	**8%**
Unrealised Losses on Derivative Contracts	(3)	(56)	
Reported Earnings / (Losses)[1]	**39**	**(7)**	

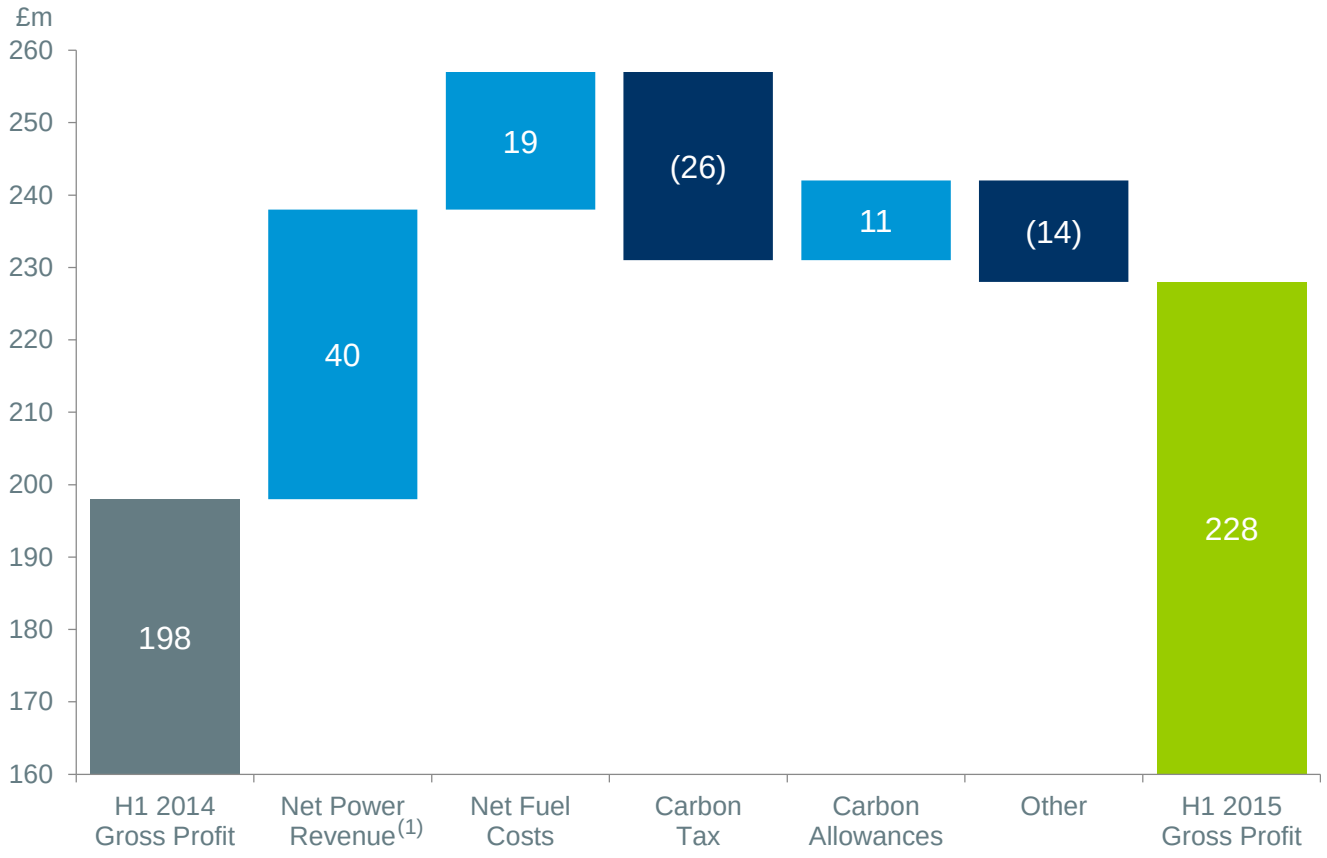
1) Comprises underlying earnings adjusted for unrealised gains / (losses) on derivative contracts and the associated tax effect

Group Gross Profit and EBITDA

Segmental Analysis	H1 2015 £m	H1 2014 £m	▲%
Gross Profit			
Generation (Drax Power)	228	198	
Retail (Haven Power)	8	6	
Biomass Supply (Drax Biomass)	(2)	-	
Group Gross Profit	**234**	**204**	**15%**
Group Operating Costs	(114)	(102)	
Group EBITDA	**120**	**102**	**18%**



Drax Power – Gross Profit



Key Metrics

Net sales volume and average achieved price
- 2015: 14.0TWh (£49.9/MWh)
- 2014: 12.9TWh (£51.0/MWh)

Cost of coal and biomass
- 2015: £41.0/MWh
- 2014: £37.5/MWh

Value of ROC/LECs generated
- 2015: £46.4/MWh
- 2014: £44.1/MWh

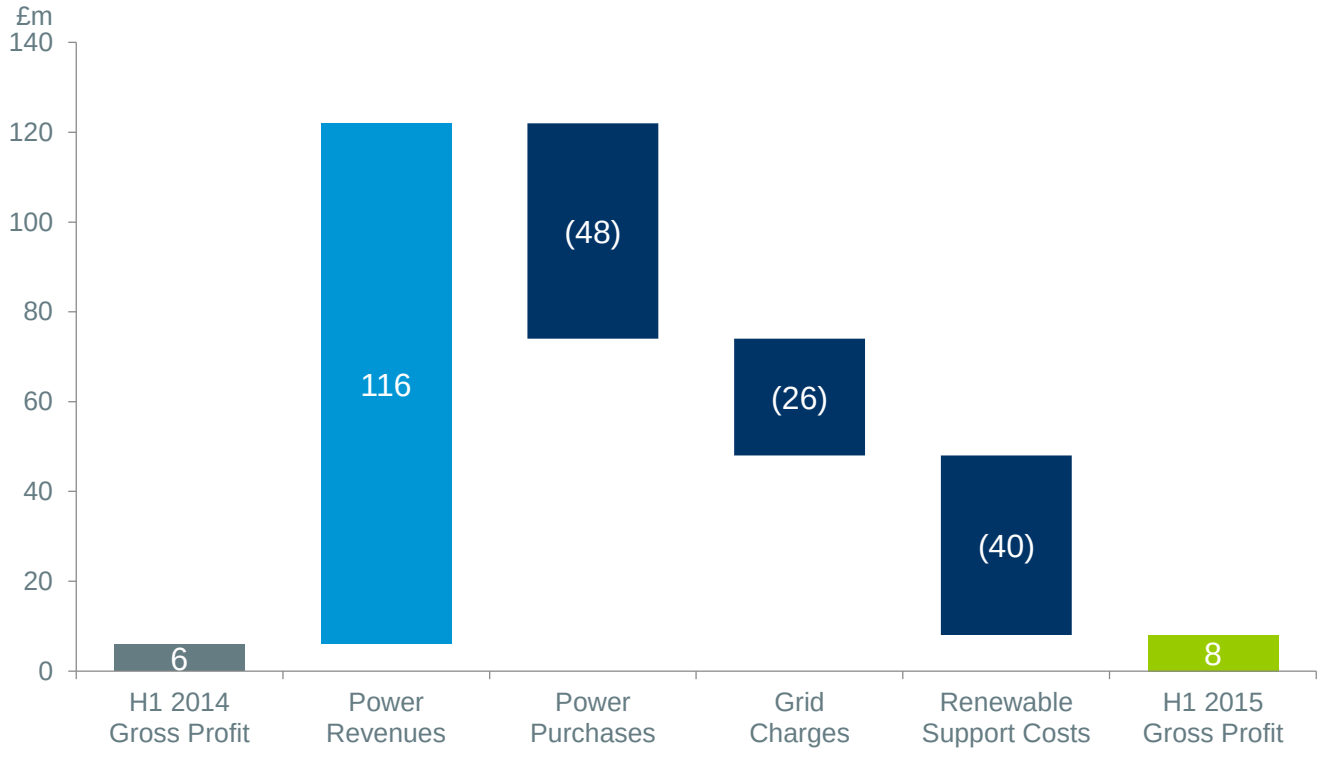
Carbon tax
- 2015/16: £18/t
- 2014/15: £10/t

Carbon allowances expensed and average price
- 2015: 7.5m (£4.3/t)
- 2014: 8.6m (£5.2/t)

1) Revenues includes sales to Haven Power of £364m (H1 2014: £316m)

Tabular gross profit analysis included in Appendix 5

Haven Power – Gross Profit



Key Metrics

Retail sales
- 2015: 6.8TWh (£92.3/MWh)
- 2014: 5.6TWh (£91.6/MWh)

Power purchases
- Increase reflects sales growth at a lower cost per MWh
- 2015: £51.9/MWh
- 2014: £54.4/MWh

Grid charges
- Distribution, transmission and balancing costs
- Increasing partly due to more intermittent generation

Renewable support costs
- Increasing cost of Renewables Obligation, Feed-in-Tariffs and LECs

Tabular gross profit analysis included in Appendix 6

Group Operating Costs

Operating costs – £114m in H1 2015

H1 2015 operating cost increase £12m

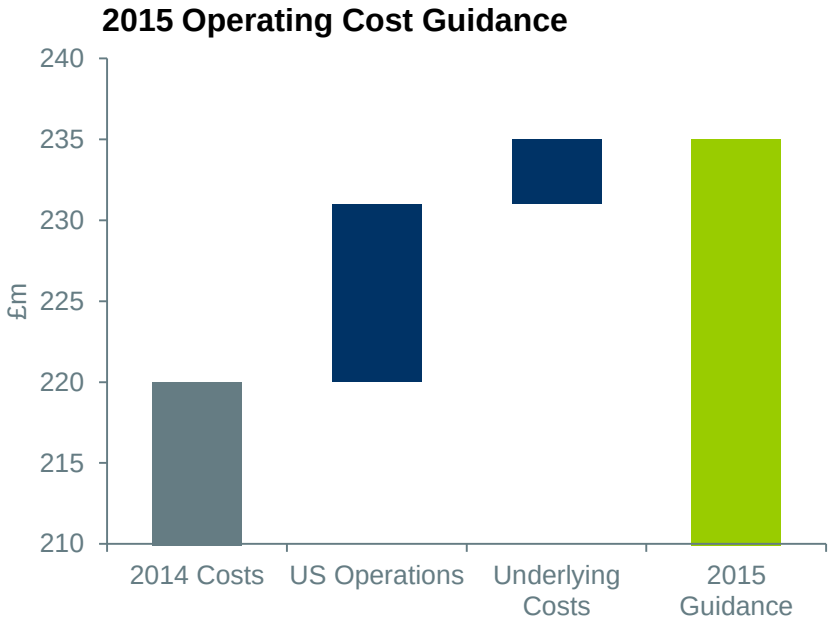
- Start of US operations and timing of maintenance work

FY 2015 operating cost guidance: £235m

- Decrease of £5m vs. original guidance
- Start of US operations: +£11m
- Tight cost control – underlying costs: +£4m

Efficiencies and optimisation

- Opportunities to improve operations and profitability



Group Capex

On track to deliver biomass transformation in 2016 – in line with original cost guidance

£650m - £700m

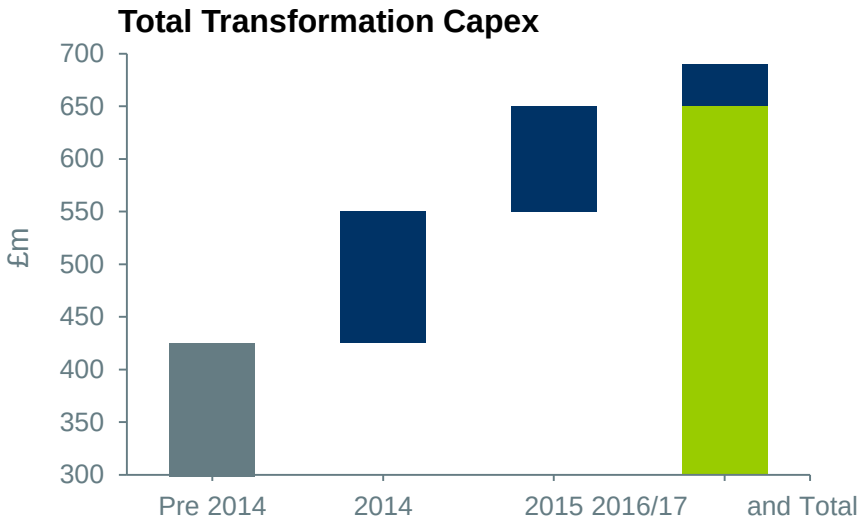
- 3 unit conversions, US pellet investments and IED[(1)] compliance

H1 2015 capex £54m

2015 total capex guidance remains c.£150m

- Now includes accelerated IED investments in 2015

Future investment will be lower following completion of biomass transformation



1) **IED = Industrial Emissions Directive**

Group Cash Flow

H1 2015 Cash Flow	£m
Opening Cash	**221**
EBITDA	120
Working Capital / Other	165
ROCs / LECs	(110)
Tax	(2)
Capex Payments	(72)
Debt Service	(11)
Dividends	(29)
Closing Cash[1]	**282**

Working Capital

- Decrease in stocks (c.£60m) – coal stocks down 0.9Mt to 1.3Mt
- Decrease in receivables (c.£65m) – seasonality in trade debtors
- Increase in creditors and accruals (c.£40m) – includes Haven ROC obligation

ROCs / LECs

- ROC and LEC assets – up £110m to £295m
- ROC monetisation facilities used to accelerate cash flows
- Balance sheet value of LECs £16m – recoverable

Dividends

- Final 2014 dividend of 7.2p/share

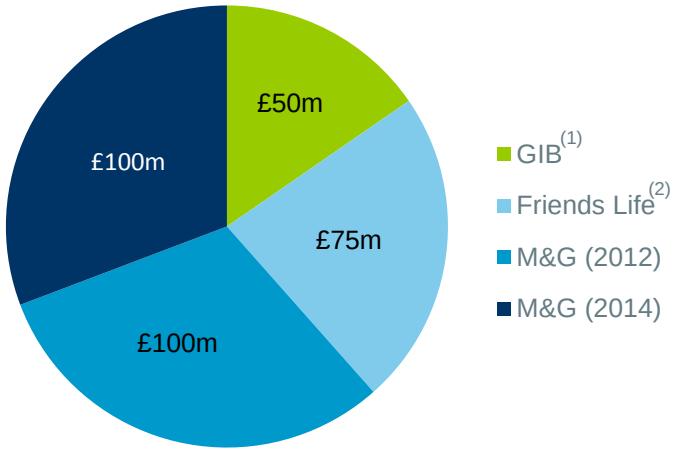
Closing Cash

- Net debt: £40m (31 December 2014: £99m)

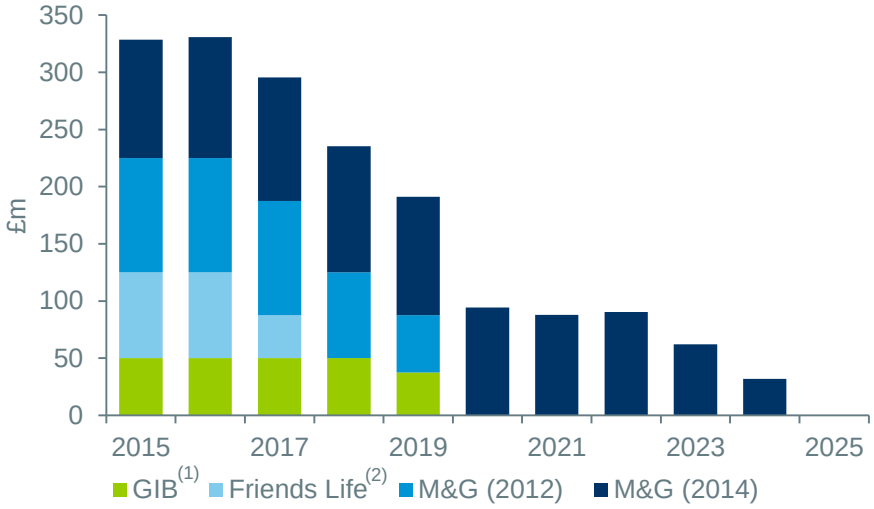
1) **Cash and cash equivalents plus short-term investments**

Financing and Distributions

Term Loan Facilities (£325m)



Term Loan Maturity Profile



Other facilities

- £400m working capital and LC(3) facility
  - Matures April 2017
- Commodity trading line

Credit rating BB+

- Robust sub-investment grade business model
- Working capital optimisation to provide additional headroom

Distributions

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

1) GIB = UK Green Investment Bank
2) Underpinned by Infrastructure UK guarantee
3) LC = Letter of Credit

2015 Financial Guidance

Summary	
Group Opex	c.£235m
Group Capex	c.£150m
Depreciation	c.£100m
Net Interest	c.£30m
Total Tax	Small tax credit
Dividend	50% of underlying PAT
Impact of LEC Removal on EBITDA	c.£30m in 2015 and c.£60m in 2016

Financial Review Summary

H1 2015 – solid financial performance

- Good operations
- Increasing biomass generation
- Increasing cost of UK carbon tax
- Value of flexibility increasingly evident
- Healthy cash flow and strong balance sheet

H2 2015 outlook

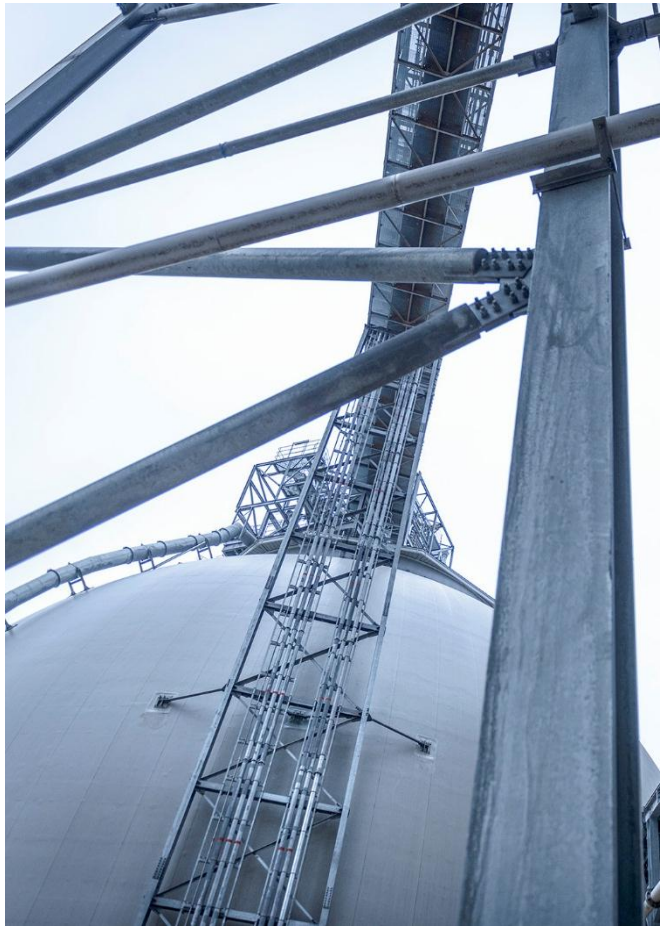
- LEC removal and UK carbon tax
- First biomass unit planned outage
- Third biomass unit operational
- Lower value in forward hedge

EU CfD process to conclude

Further ahead

- Continued focus on business improvement
- Transformation complete – UK and US

Biomass Infrastructure at Drax



UK Generation Challenges and Biomass

UK Electricity System Challenges

Electricity trilemma

Reliable: security of supply is a threat

- Security is more complex than meeting peak demand

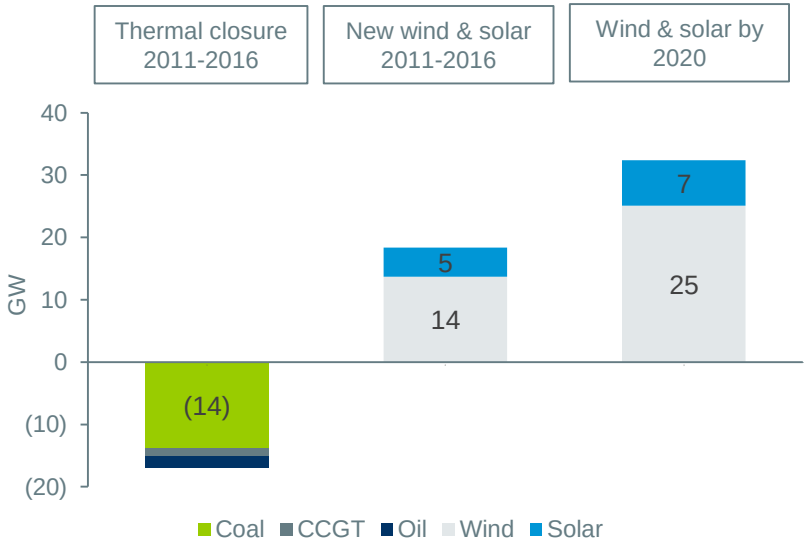
Low carbon: required by UK

- 2020 EU targets and UK climate change budgets

Affordable: whole system cost is a concern

- DECC external expert study underway
- Biomass can contribute to lower overall costs
  - Reserve, back-up, transmission and infrastructure costs
  - System costs for 3 Drax units would be £3bn less than equivalent offshore wind generation in 2020[1]

Change in Generation Capacity 2011-2020[2]



Whole System Cost

	Reliable	Low Carbon	Comparative Affordability
Wind	✗	✓	✗
Solar	✗	✓	✗
Biomass	✓	✓	✓

1) Frontier Economics – The Relative System Cost of Biomass and Offshore Wind, November 2014
2) National Grid Gone Green scenario and Digest of UK Energy Statistics 2014

Focus on System Stability

Grid needs to maintain a secure system

Services required by grid for system security

- Reserve
  - Ability to change output to support under / over supply
- Frequency response
  - Fast response to sudden shocks to the system
- Voltage control
  - Generators ability to push power around the system
- Inertia
  - Protection large plants provide against rapid frequency change

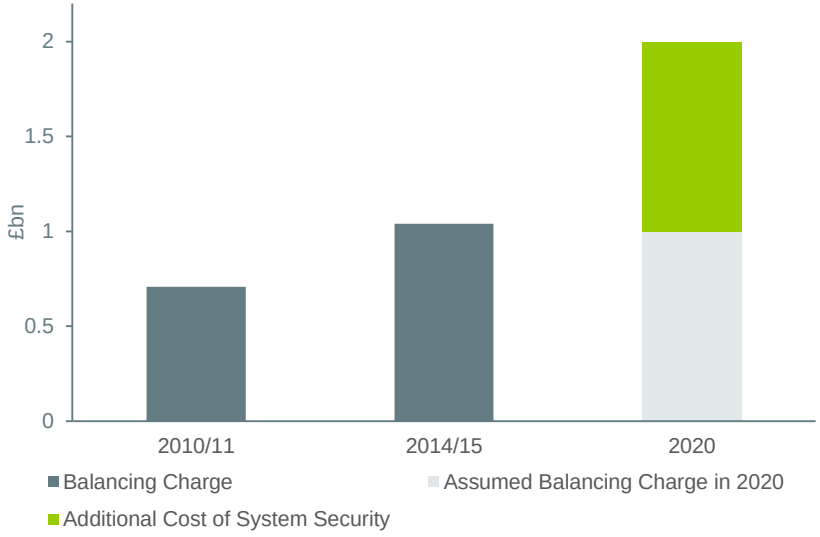
Cost of key services expected to increase

- 100% increase in cost by 2020 vs. 2014/15
- Drax is and will remain a significant provider of system support services
  - Competitiveness of units helps keep costs down

System Support Services

	Wind	Solar	Biomass
Reserve	✘	✘	✓
Frequency Response	Limited	✘	✓
Voltage Control	Limited	✘	✓
Inertia	✘	✘	✓

Payment for Balancing System & Future System Costs(1)



1) **Cost of System Inertia and Frequency Containment as a Result of Intermittent Generation and Reduced System Security (National Grid Gone Green scenario) and existing balancing charges**

Benefits of Biomass Conversion

A cost effective solution

Good for the UK system

- Reliable, flexible and responsive generation
- Connected through existing infrastructure
  - No need for: back-up power, new grid connections, or additional stability measures

Good for the environment

- Drax is Europe's largest decarbonisation project
  - Major carbon savings – 12Mt pa
  - c.10% of UK 2020 electricity decarbonisation target

Good for the forest

- Biomass helps underpin forestry economics
- Healthy commercial forestry industry encourages long-term investment and forest growth

Good for the consumer

- Lower whole system cost vs. other renewables

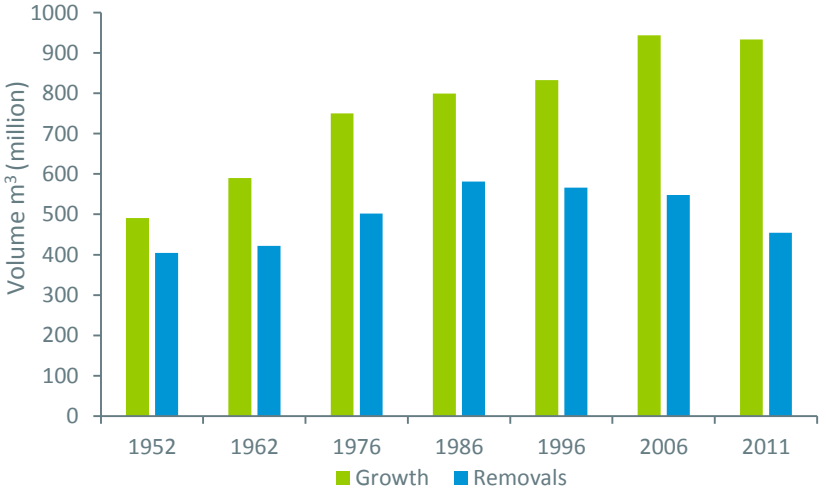
Expect value of Drax to become increasingly evident

GHG(1) Life Cycle Emissions vs. Fossil Fuels

Drax Biomass in 2014	GHG Target 2015-2020(2)	Gas(3)	Coal(4)
34g CO_2/MJ	79g CO_2/MJ	193g CO_2/MJ	280g CO_2/MJ

(1) GHG = Green House Gas
(2) DECC proposed target (includes emissions from transportation)
(3) Source: Friends of the Earth, Russian piped gas
(4) Source: Environment Agency, UK-mined coal average

US Forestry Growth vs. Removals



Source: US Department of Agriculture, US Forest Resources Facts and Historical Trends, August 2014

Conclusion

A strong performance in a challenging first half

- Good operations
- Increasing biomass generation
- Continued weak commodity markets

Biomass transformation continues

- Expect to be predominantly biomass fuelled by 2016
- Regulatory change and outcomes awaited

Value of Drax to UK grid and consumer will become increasingly evident

- Electricity system stability
- Major carbon savings
- Cost effective low carbon renewable energy

Reliable

Low Carbon

Affordable

Questions

Appendices

1. Definitions
2. Financial Calendar
3. IAS 39 Treatment
4. Group Income Statement
5. Drax Power – Gross Profit
6. Haven Power – Gross Profit
7. Contracted Position
8. ROC Reporting
9. Tax Reconciliation
10. Power Market
11. Gas Market
12. Coal Market
13. Carbon Market
14. Forward Spread Movements
15. Commodity Price Movements
16. LCPD and IED
17. Carbon Price Floor

Dust Extraction System

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).
BM	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 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.
CCL	CLIMATE CHANGE LEVY	A tax on electricity delivered to non domestic users, intended to encourage energy efficiency and reduced carbon emissions
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 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 ran from 2005-07, the second compliance phase continued 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 (cont.)

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.
	ADVANTAGED FUELS	Fuel that gives a price advantage against standard bituminous coals. Such fuels include, off specification coals and petcoke.
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 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.
ROSPA	ROYAL SOCIETY FOR THE PREVENTION OF ACCIDENTS	
SNCR	SELECTIVE NON CATALYTIC REDUCTION	
SO_2		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 injuries)/ hours worked * 100,000.
UKCS	UK CONTINENTAL 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	Date
Trading Update	November 2015
Financial Year End	31 December 2015
Announcement of Preliminary Results	23 February 2016

Appendix 3: IAS 39 Treatment

Financial Instrument	Location of Gains and Losses in the 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 4: Group Income Statement

In £m	H1 2015	H1 2014	▲%
Revenue	1,511	1,257	
Cost of Sales	(1,277)	(1,053)	
Gross Margin	**234**	**204**	
Operating Costs	(114)	(102)	
EBITDA	**120**	**102**	**18%**
IAS39 Unrealised Losses on Derivative Contracts	(3)	(56)	
Depreciation	(50)	(42)	
Operating Profit	**67**	**4**	
Net Finance Costs	(14)	(15)	
Profit / (Loss) Before Tax	**53**	**(11)**	
Tax (Charge) / Credit	(14)	4	
Reported Earnings / (Losses)	**39**	**(7)**	
Underlying Earnings	**41**	**38**	**8%**
Reported Basic Earnings / (Losses) Per Share (pence)	**9.6**	**(1.7)**	
Underlying Basic Earnings Per Share (pence)	**10.2**	**9.4**	**8%**
Total Dividend Per Share (pence)	**5.1**	**4.7**	

Appendix 5: Drax Power – Gross Profit

In £m	H1 2015	H1 2014	▲%
Revenue[1]			
Power Sales	1,090	1,003	
ROC/LEC Sales	145	38	
Ancillary Services Income	6	6	
Other Income	5	13	
	1,246	**1,060**	**18%**
Cost of Sales			
Generation Fuel Costs	(574)	(483)	
ROC/LEC Support	241	132	
Carbon Tax	(75)	(49)	
Cost of Carbon Allowances	(33)	(44)	
ROCs/LECs Sold or Utilised	(144)	(38)	
Cost of Power Purchases	(391)	(344)	
Grid Charges	(42)	(36)	
	(1,018)	**(862)**	**18%**
Gross Profit	**228**	**198**	**15%**

1) **Includes sales to Haven Power of £364m (H1 2014: £316m)**

Key Metrics

Net sales volume and average achieved price
- 2015: 14.0TWh (£49.9/MWh)
- 2014: 12.9TWh (£51.0/MWh)

Cost of coal and biomass
- 2015: £41.0/MWh
- 2014: £37.5/MWh

Value of ROC/LECs generated
- 2015: £46.4/MWh
- 2014: £44.1/MWh

Carbon tax
- 2015/16: £18/t
- 2014/15: £10/t

Carbon allowances expensed and average price
- 2015: 7.5m (£4.3/t)
- 2014: 8.6m (£5.2/t)

Appendix 6: Haven Power – Gross Profit

In £m	H1 2015	H1 2014	▲%
Revenue	**629**	**513**	**23%**
Cost of Sales			
Cost of Power Purchases	(353)	(305)	
Grid Charges	(143)	(117)	
Other Retail Costs	(125)	(85)	
	(621)	**(507)**	**22%**
Gross Profit	**8**	**6**	

Key Metrics

Retail sales
- 2015: 6.8TWh (£92.3/MWh)
- 2014: 5.6TWh (£91.6/MWh)

Power purchases
- Increase reflects sales growth at a lower cost per MWh
- 2015: £51.9/MWh
- 2014: £54.4/MWh

Grid charges
- Distribution, transmission and balancing costs
- Increasing partly due to more intermittent generation

Renewable support costs
- Increasing cost of Renewables Obligation, Feed-in-Tariffs and LECs

Appendix 7: Contracted Position

Group Power Sales Contracted at 20 July	2015	2016
Power Sales – TWh	**24.7**	**13.5**
Comprising:		
Fixed Price TWh at Average Achieved Price £ per MWh	23.6 @ 49.8	11.8 @ 48.5
Fixed Margin Contracts TWh	1.1	1.7

Appendix 8: ROC Reporting

Balance sheet reconciliation

- ROC/LECs generated – estimated benefit of generating electricity with biomass
- Sold or utilised – original estimated balance sheet value charged to cost of sales on subsequent sale of ROC/LECs
- Value at balance sheet date – estimate of cumulative ROC/LEC value generated not sold

H1 2015 Balance Sheet – ROC and LEC Assets

ROC and LEC Assets	£m
At 31 December 2014	**185**
ROCs / LECs Generated	250
Purchased	4
Sold or Utilised	(144)
At 30 June 2015	**295**

Appendix 9: Tax Reconciliation

UK corporation tax (CT) rates

- 20.25% for 2015 and 21.5% for 2014

2015 tax rate

- Underlying rate excludes after tax impact of unrealised gains and losses on derivative contracts
- Full year effective rate likely to be lower reflecting impact of proposed UK tax rate changes

Tax Reconciliation

	Reported		Underlying	
In £m (unless otherwise stated)	H1 2015	H1 2014	H1 2015	H1 2014
Profit Before Tax	**53**	**(11)**	**56**	**45**
Tax at UK CT Rate	(11)	2	(11)	(10)
Adjustment to Prior Year Taxes and Other Items	(3)	2	(4)	3
Tax (Charge) / Credit	**(14)**	**4**	**(15)**	**(7)**
Effective Tax Rate	**27%**	**n/a**	**26%**	**16%**

Appendix 10: Power Market

UK power market

Power prices weaker in 2015 – driven by gas market

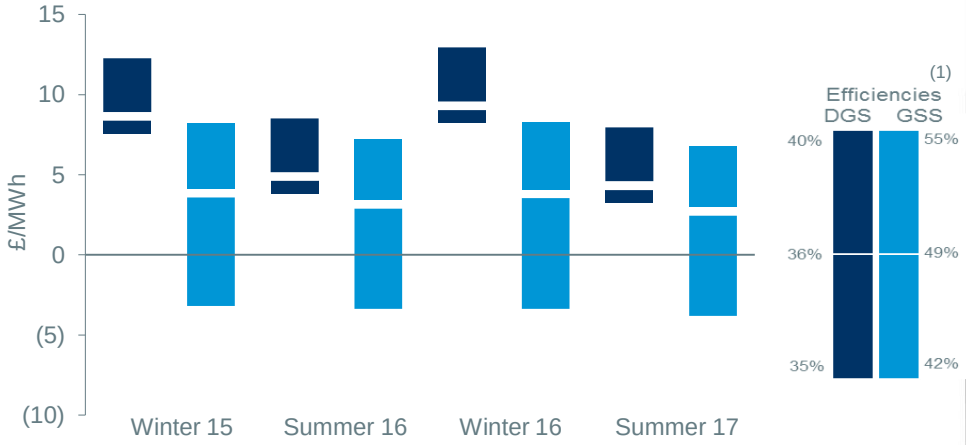
Dispatch dynamics

Plant efficiencies significant factor in load profile

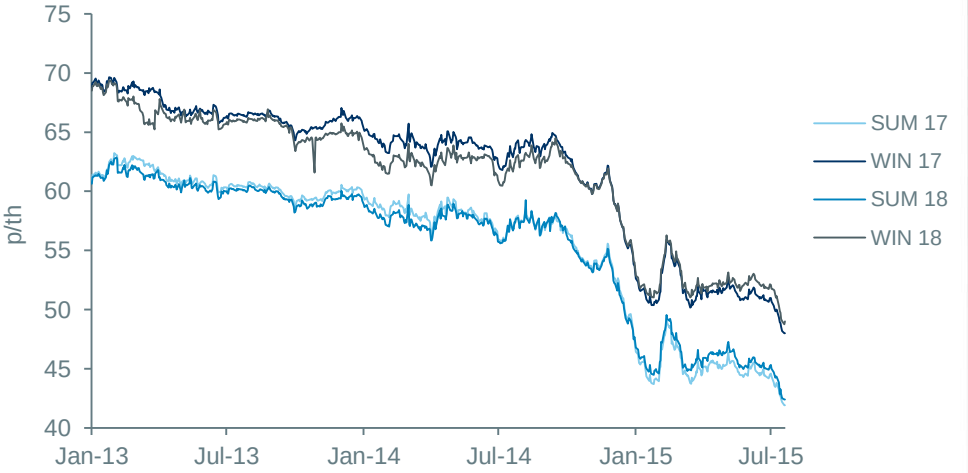
- Different load factors for same fuel plant
- Low gas spreads resulted in gas plant capacity withdrawn / considered for closure
- All opted-out coal plant now closed
  - Ironbridge converted to biomass until Dec-15
- Announced closures of Ferrybridge and Longannet by March 2016
- Oil-fired plant closing prior to full utilisation of running hours

Wind and solar capacity continues to grow

Range of Fossil Fuel Spreads by Efficiency (Baseload)



UK Gas (at National Balancing Point)



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

Sources for chart: Spectron, Brokered Data, Drax assumptions
Based on market prices on 21st July 2015

Appendix 11: Gas Market

Oil prices at six year low

- Driven by over supply
- Increased US shale production
- OPEC unwilling to give up market share
- Lower oil prices filtering through to gas contracts with an oil-indexation element

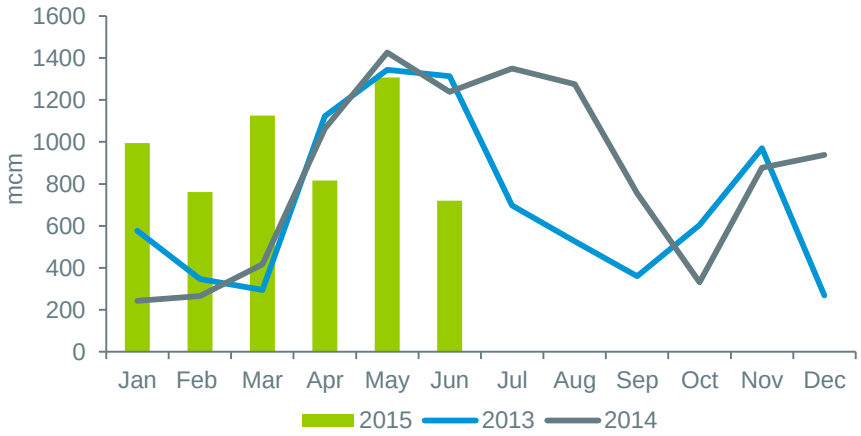
LNG prices under pressure

- Lower oil price filtering through to LNG prices
- Spread between Asia and Europe has narrowed
- Europe has become more competitive, resulting in year on year increase in LNG deliveries to UK
- Japanese nuclear remain constrained (limited number returning in 2015)

Rough storage

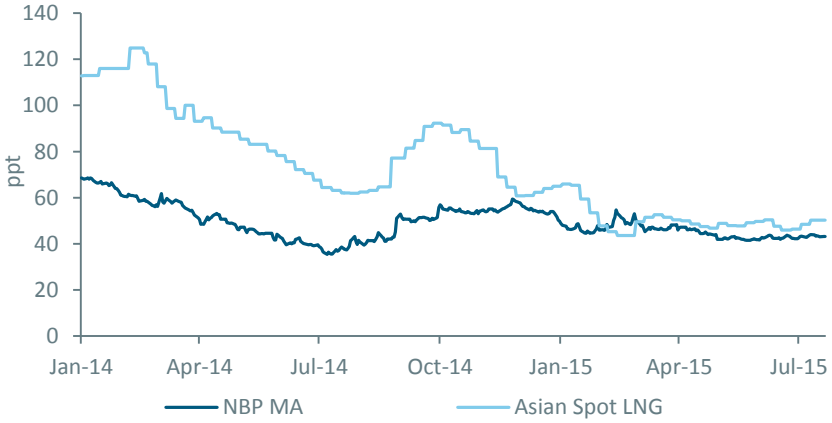
- Due to a fault capacity at the UK's largest storage facility has been reduced by 25%
  - Partly off-set by a reduced reserve requirement
- Market now more exposed during prolonged cold spells this winter

UK LNG Deliveries Year on Year



Data Source: National Grid

Asian Spot LNG vs. UK Gas (Month Ahead)



Data Source: Thomson Reuters Eikon

Appendix 12: Coal Market

Seaborne market remains oversupplied

- Atlantic market supported during H1 2015 by supply issues in Russia and Colombia

Strength of the US$ has protected some producers from weak coal prices

- Currency benefits biggest where producers are less exposed to US$ denominated costs

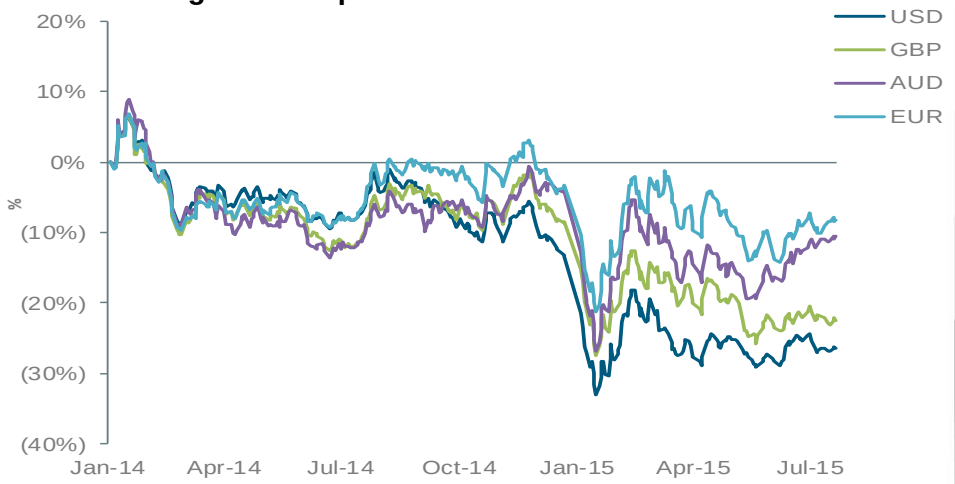
China imports falling, with India now the growth focus

- Chinese seaborne steam coal imports 44% lower year to date
- Chinese stocks remain high
- Indian demand up 35% YoY

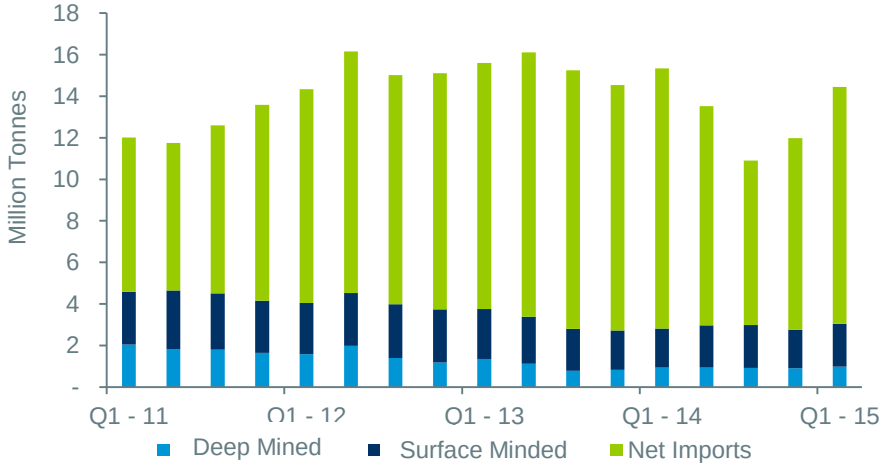
UK domestic coal production under pressure from low international prices

- Closure of Hatfield mine
- Last deep mine expected to close in 2016

Change in API2 price in home currencies:



UK Indigenous Coal Production vs. Net Imports



Source: Digest of UK Energy Statistics (DUKES)

Appendix 13: Carbon Market

Phase III EU ETS – recovery from 2013 lows

- Market remains oversupplied
- Back-loading now approved
  - 900Mt removed between 2014 – 2016
  - Back-loaded allowances will now be placed in Market Stability Reserve
- Market Stability Reserve approved by EU, beginning 1 January 2019

Phase IV EU ETS – negotiations continue

- EU Commission published “Energy Summer Package” a legislative proposal for Phase IV (2021 to 2030)
- 2.2% linear reduction factor
- Challenge remains to get all member states to agree targets

Carbon Prices

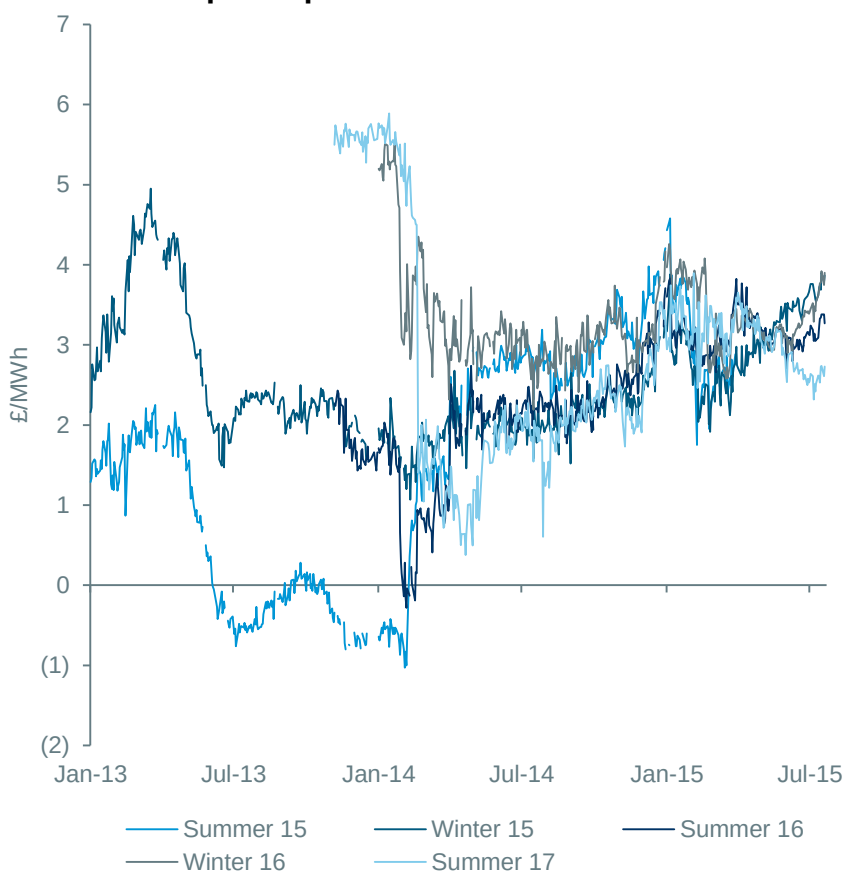
Source: ICE ECX

Prices as of 21st July 2015

Appendix 14: Forward Spread Movements

Dark Green Spread

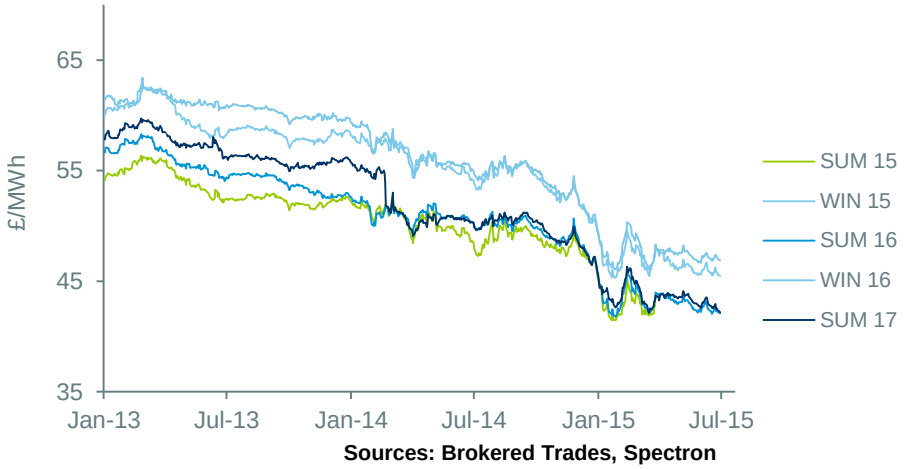
Green Spark Spread



Source: Drax. Assumed typical efficiencies: Dark Green Spread – 36%, Spark Spread – 49%
Prices as of 21st July 2015

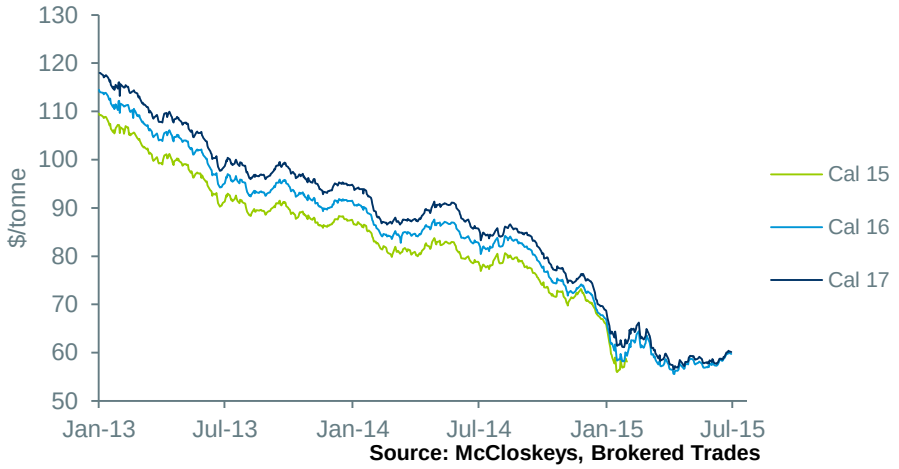
Appendix 15: Commodity Price Movements

Power Prices



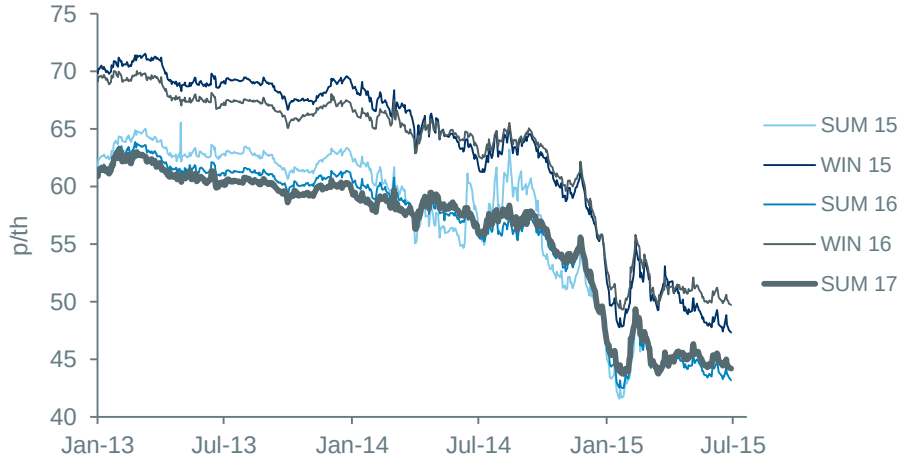
Sources: Brokered Trades, Spectron

Coal Prices (API 2)



Source: McCloskeys, Brokered Trades

UK NBP Gas Price



Source: Spectron

Carbon Prices

Source: ICE ECX

Appendix 16: LCPD and IED

Installation	Operator	Fuel	Installed Capacity (MWe)	Capacity Opted In (MW)	Capacity Opted Out (MW)	Opted Out Hours Remaining (Elexon – Jun 2015)	IED – Stations with Opted Out Units
Drax	Drax Power	Coal	3870	3870	-		
Eggborough	EPL	Coal	1960	1960	-		✓
Cottam	EDF Energy	Coal	2008	2008	-		✓
West Burton	EDF Energy	Coal	1972	1972	-		✓
Kingsnorth	E.ON UK	Coal	1940	-	1940	Closed	N/A
Ratcliffe	E.ON UK	Coal	2000	2000	-		
Ironbridge	E.ON UK	Coal	970	-	970	18%	
Rugeley	International Power	Coal	996	996	-		
Ferrybridge	Scottish & Southern Energy	Coal	1960	980	980	U1,2&4 closed, U3 closed by March 2016	✓
Fiddlers Ferry	Scottish & Southern Energy	Coal	1961	1961	-		
Longannet	Scottish Power	Coal	2304	2304	-	Closure by March 2016	
Cockenzie	Scottish Power	Coal	1152	-	1152	Closed	N/A
Uskmouth	Scottish & Southern Energy	Coal	393	393	-	Closed	
Didcot A	RWE npower	Coal	1940	-	1940	Closed	N/A
Tilbury*	RWE npower	Coal	1020	-	1020	Closed	N/A
Aberthaw	RWE npower	Coal	1455	1455	-		✓
Grain	E.ON UK	Oil	c.1300	-	c.1300	Closed	N/A
Littlebrook	RWE npower	Oil	c.1100	-	c.1100	Closed	
Fawley	RWE npower	Oil	c.1000	-	c.1000	Closed	N/A
Total			**31301**	**19899**	**11402**		

Source: Elexon, Oxera, Drax data as at July 2015

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

Appendix 17: Carbon Price Floor (CPF)

Introduced in Budget 2011 – effective April 2013

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

- Based on fuel (coal) consumption

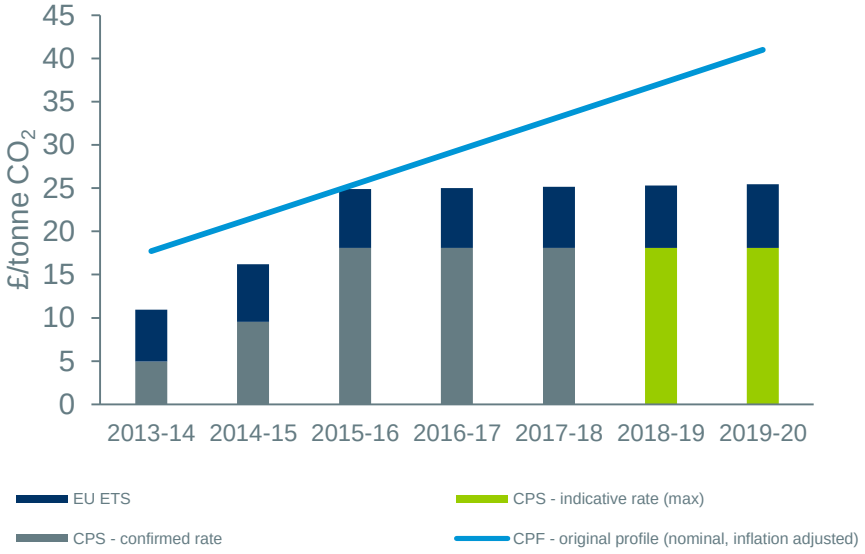
Carbon Price Support (CPS) per tonne CO_2 set annually – 2 years in advance

- Based on difference between Government (HMT) target carbon price trajectory and traded price
- 2013/14 – c.£5/tonne CO_2; (c.£12/tonne coal)
- 2014/15 – c.£10/tonne CO_2; (c.£23/tonne coal)
- 2015/16 – c.£18/tonne CO_2; (c.£43/tonne coal)

2013/14 Budget

- CPS capped at 2015/16 level for a further four years

HMT Projected Carbon Price Floor to 2020 with CPS and EU ETS



Half Year Results

6 Months Ended 30 June 2015

28 July 2015