Interim Results 2018

redT energy plc (AIM:RED)

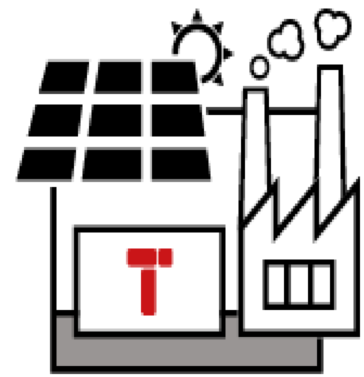
redT energy storage

Executive Summary

- Energy storage to enable cheap baseload renewables
- Trusted energy storage expert with 20 years in the sector
- In-house proprietary flow machine technology
- Energy storage finance solutions across key sectors; C&I, Grid Storage, Large solar
- Gross pipeline £1.1bn, risked £188m
- Business model; product margin and 20 year asset management contracts

Sector Opportunity

Macro trends in global energy and the role energy storage will play in our future energy system



The Future of Energy

Distributed energy storage infrastructure is now open for business

This is real, economic, distributed infrastructure

Centralised | **Distributed Energy**

Type	Levelised Cost (UK)
Coal	13.7p – 17.1p / kWh
Nuclear	8.5p – 12.3p / kWh
Gas (Peaker)	18.2p – 19.8p / kWh
Solar	5.5p – 7.6p / kWh
Wind	4.6p – 7.4p / kWh

Source: BEIS (commissioning in 2025)

Average cost of UK Electricity:
12p-14p/kWh (Centralised)

Source: UK Power (2018)

Large-scale PV + Storage:
9p/kWh (Distributed)

Source: BEIS, redT

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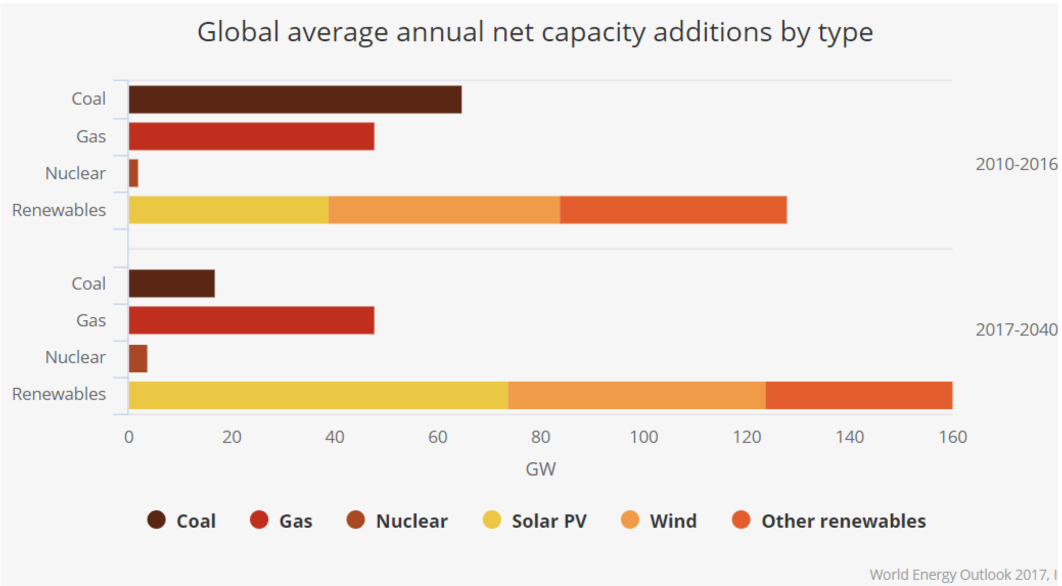
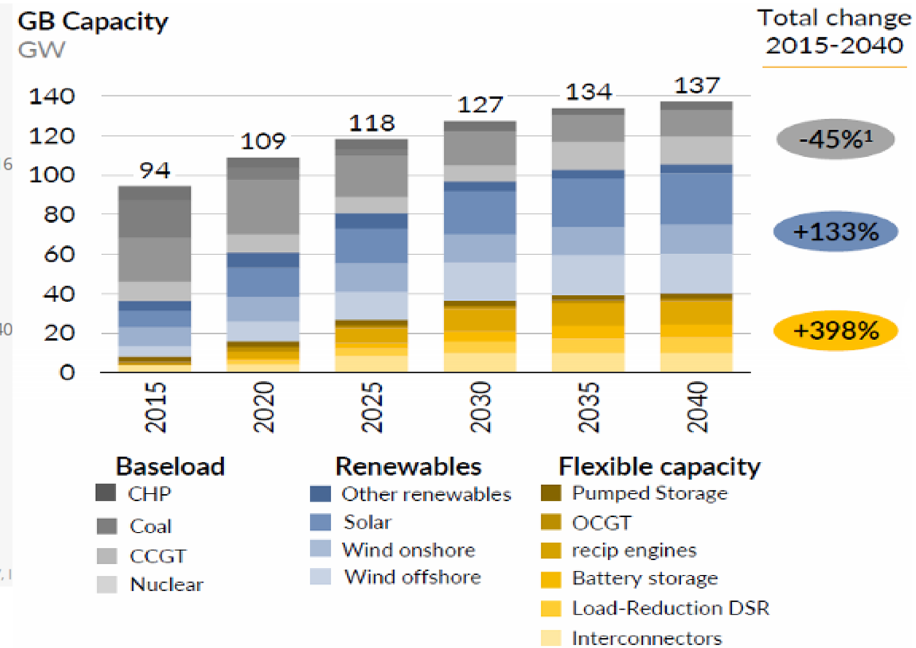
A Changing Generation Mix





Source: Aurora Energy Research, 2018

More renewable (wind and solar)
retirement of Coal and CCGT (Gas)

Movement towards 'flexible' capacity

Solar + Storage: Tipping Point

Price of Energy

Tending to $0/kWh
Free abundance of energy

Power Price Volatility

Peak Prices Rising

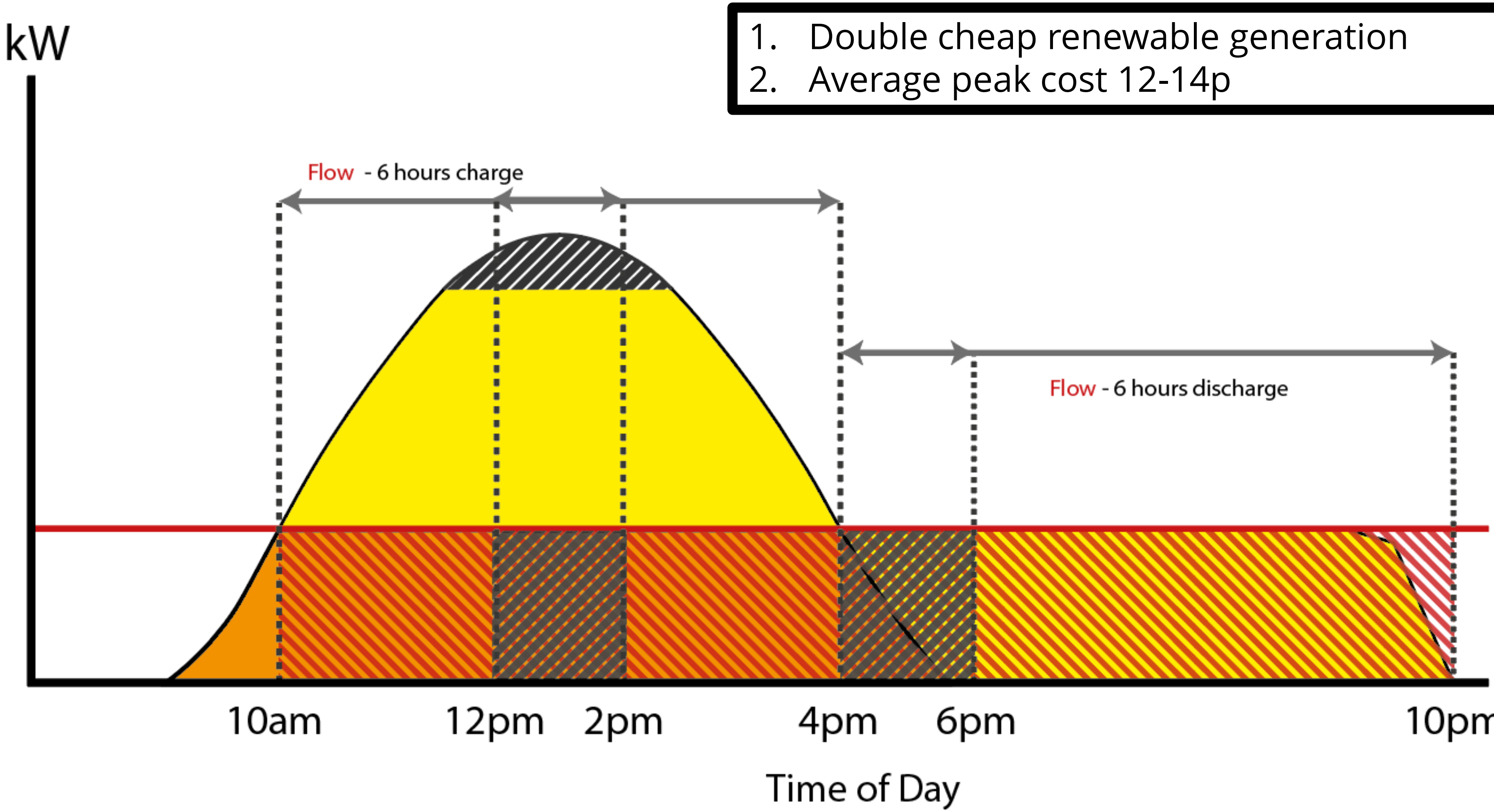
Grid Service Revenues

USA, UK + others coming online

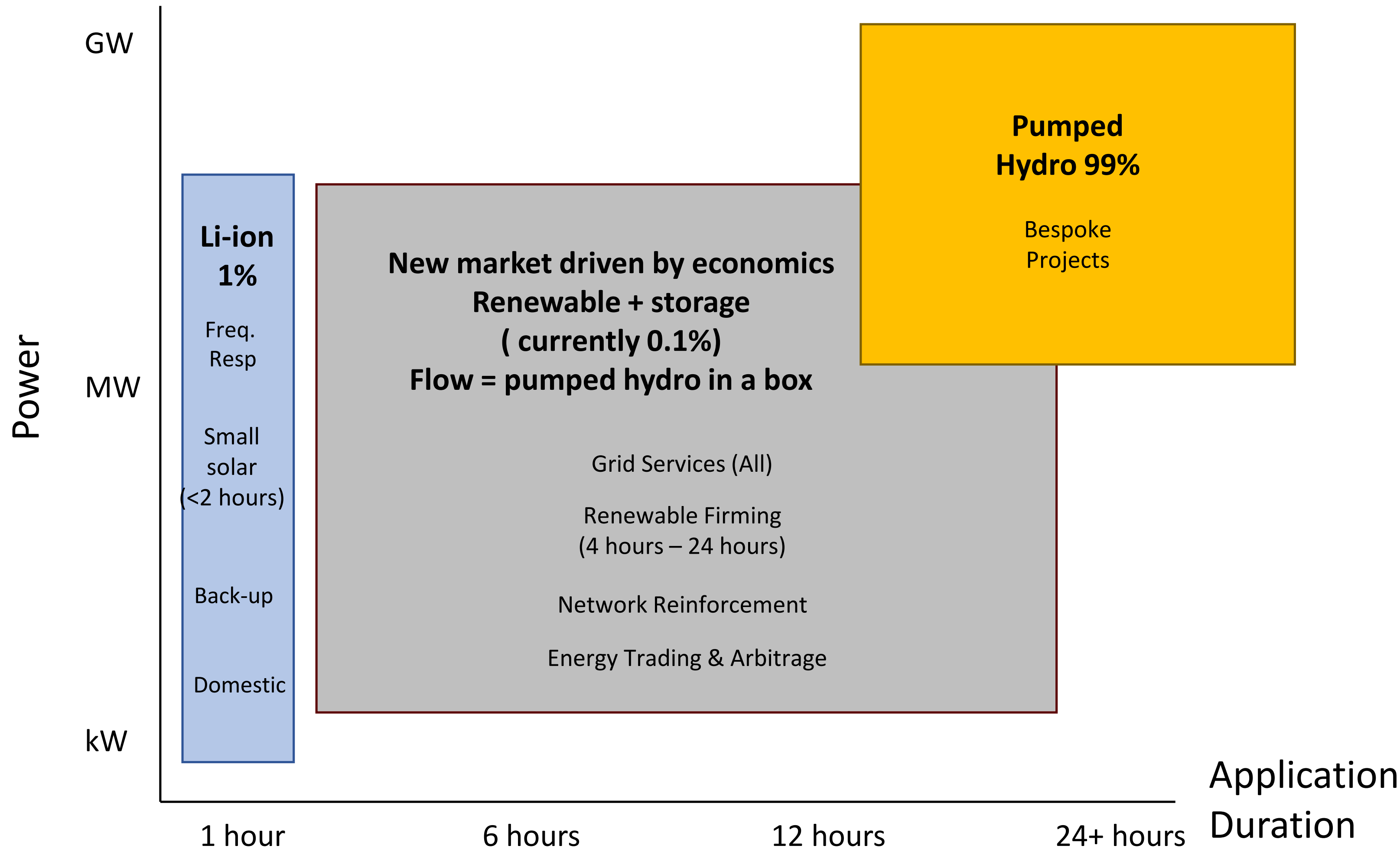
Energy storage is enabling more renewables to come online
Cheaper, cleaner energy, globally

Maximise Use of Cheap Renewables

1. Double cheap renewable generation
2. Average peak cost 12-14p



Stationary Energy Storage Market



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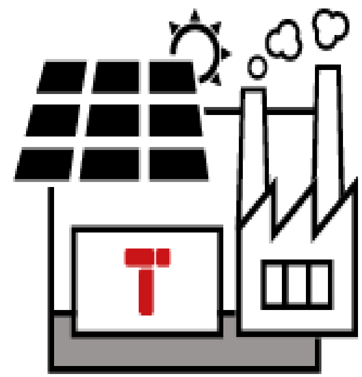
Company Update

redT energy – Key differentiators, technology and position within the sector



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redT – Industrial Energy Storage

<u>Trusted</u> - Energy storage solutions expert

- **20 years** in energy storage. 100's of client models
- **Key clients;**

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<u>Technology</u> - IP proven, patents, know how

- **Energy storage machines** and **Lithium batteries**
- **2 million+ machine operating hours**
- **Gen 3** embedded functionality
- Commodity manufactured product

redT - product margin

<u>Solutions & Finance</u> – infrastructure business models

- **Low risk infrastructure**, 20+ year assets, 3rd party validated

Channel finance into key applications:

1. **C&I Sector**
2. **Grid (storage)**
3. **Grid (PV + storage) Baseload**

redT - 20+ year asset management agreements

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2018 H1 Highlights & YTD

H1 2018

- Delivery focus for existing Gen 2 orders
- Final stage of team build out – experienced, fully functioning teams
  - H1 2018 average headcount: 70 (H1 2017: 24)
- Gen 3 product launched in June 2018
  - Best in class IP
  - Embedded functionality to maximise customer returns
- Final stage negotiations on strategic Gen 3 deals, ensuring the scale up of the business (see Post Period Activity)

Post Period Activity

- Exclusive deal signed to deliver more than 700MWh of projects to German grid (80MWh 1st phase deployment)
- Collaborative partnership signed with Anglian Water to roll out energy storage across their sites. Initial 300kWh machine sale.
- Awarded framework contract for UK Public Sector

redT – Flow Machine Technology

Differentiation within the energy storage sector

Machine

60-100% Utilisation

- Multiple, Stacked Services
- Daily, Heavy Usage
- Energy-Focussed

Pumped Hydro in a box - Doesn't degrade

Lowest Levelised cost, financeable, infrastructure asset

- Cheap Energy
- No Degradation
  Low Maintenance
- 25 year
  infrastructure
- Fully reusable
- 100% depth
  of discharge
- Low LCOS
- Safe
  No fire risk

Battery

10-20% Utilisation

- Single service
- Occasional Managed Usage
- Power Focussed

High cost of degradation – Single application use

High Levelised cost, requires regular replacement

- Cheap Power
- Regular maintenance
  & management
- Short life
  Disposable
- Disposal
  issues
- High LCOS
- 0–50%
  depth of discharge
- Fire risk
  Must be managed

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redT – Flow Machine Technology

<u>Differentiation vs other flow machine technologies</u>

Gen 3 Technology with **embedded functionality** to **enhance customer returns**

Pure Vanadium Redox Flow Machines

Simple	**Durable**	**Low-Risk**

Flexible Energy Infrastructure

Development Map

Development
1999 - 2014

- Stack technology proven
- System prototyping & testing
- Product IP Development

- Gen 1 design finalised

Commoditise
2014-2017

- Manufacturing commoditisation

JABIL

- Gen 1 market seeding, Case studies & ambassadors

e·on

centrica

- Gen 2 launch – Commercially viable, economic business models
- Gen 2 commercial sales

Scale
2017-Present

- Functional, performing team
- Gen 3 launch (Margin product) – embedded functionality, improved power output, efficiency and capacity.
- Gen 3 orderbook & delivery

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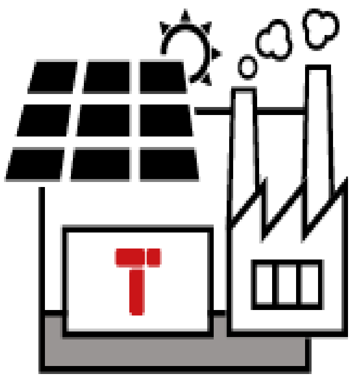
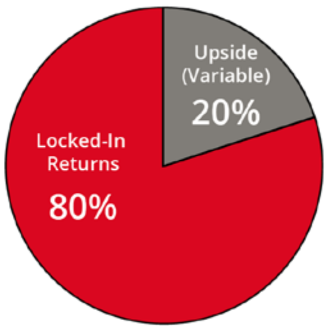
- Solutions and Finance

Customer Segment Update



Segment 1: Commercial BTM C&I

redT PV + Energy Storage Infrastructure



Upside **more** revenues

Perform all services, remain flexible
Flow Machines: All Services

Save **more** on energy bills

Use **more** solar
Firming solar: 24/7 solar power
Requires **4-8 hours** of storage

5-10 year
Project Payback

~15%
IRR (Unlevered)

Market : 5,000+ sites & $500m capex in the UK

Sector facts:

- ✓ Energy costs core to business (water sector 50% of site costs)
- ✓ Low risk infrastructure investment
- ✓ Pressure due to rising energy costs
- ✓ Desire to reduce carbon impact – harness 2x PV

Sector Opportunity

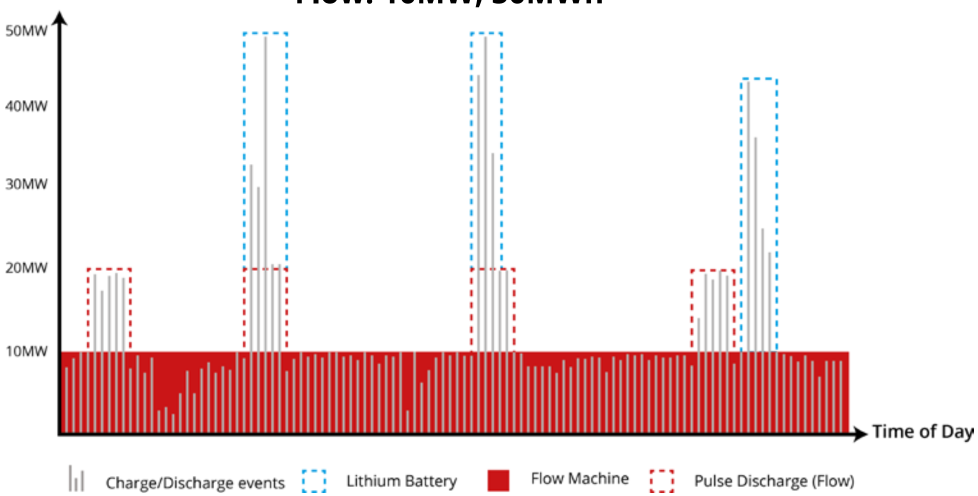
- ✓ Simple energy solution: PV + Storage + Energy supply billing

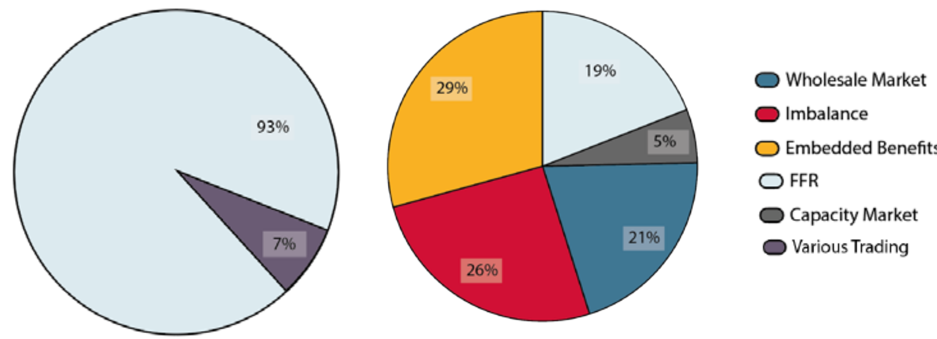
Recent Contract Wins

- Anglian Water: Collaboration agreement & Initial 4 unit order for pathfinder site. **(August 2018)**
- Awarded framework contract to supply the NHS and UK Public Sector **(September 2018)**

Segment 2: Grid Storage

Hybrid
Lithium: 40MW, 40MWh
Flow: 10MW, 50MWh





Market Value: $bn's – initial markets UK, Australia & Germany

Sector Facts

- Grid assets subject to policy and market risk
- Current market: bespoke, inflexible assets
- redT hybrid provides flexible diversified asset for 20+ years

Sector Opportunity

- Flexible Diversified Asset for trading advantage
- Asset can be worked hard for returns due to no degradation
- Bankable debt financeable asset

Recent Wins

- 700MWh exclusive portfolio of German grid project **(July 2018)**

Case Study: German Grid Storage

Initial project

- 11MW, 44MWh – 800 redT units

Further Phase

- 2nd project identical to initial project 44MWh
- Both Projects - Extensions additional 22.5MW, 90MWh
- Third project - 150MW 600MWh
- Total investment ~€400m

German SCR Market – Energy storage 2.0

- 4 hour service to balance grid – true balancing of grid
- redT first project 1% of current SCR market
- Current services by Coal – 5 minute ramp time
- Coal will phase out – renewables will create more SCR market
- Deep market 2GW – 8GWh Secondary Control Reserve,

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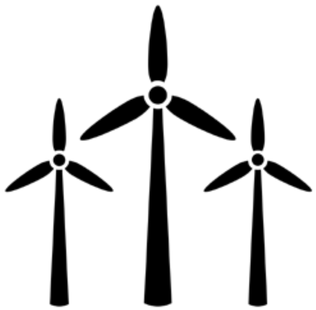
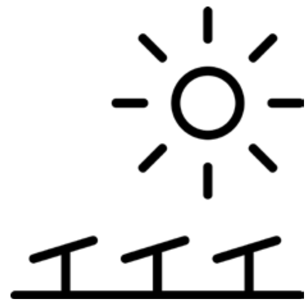
Segment Three: Solar/Wind + Storage



Wind



Solar

Long duration
energy storage
(~6-10 hours)

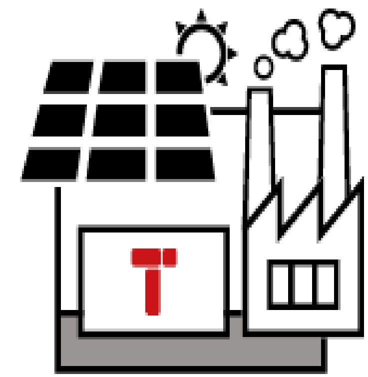
Baseload Energy

(Now) < $90/MWh

(Future) < $50/MWh

Market Value: $bn's – the future of distributed energy
2018 – marginally economic
By 2021 – Solar cost reduction will drive this as major segment

Commercial Update



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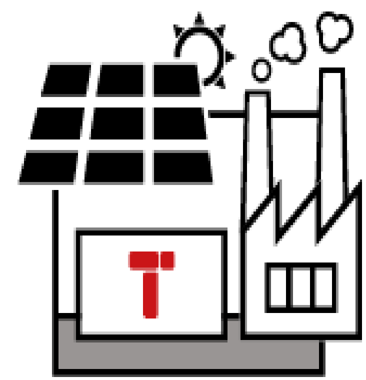
Commercial Pipeline

Deal Stage	Gross	Conversion	Weighted
Project Development	£60m (1,776 units)	95%	£57m (1,687 units)
Quoted	£198m (4,787 units)	25%	£50m (1,197 units)
Early stage	£815m	10%	£81m
	£1,073m		£188m

Core Segments

1	C&I BTM: £115m
2	Grid-Scale: £702m
3	Large Solar & Storage: £256m

HY 2018 Financials



Highlights

- Revenue from continuing operations up 33% to £1.2m (H1 2017 £0.9m)
- Trading loss £5.4m (H1 2017: £2.8m loss)
- Operating loss from continuing operations £5.7m (H1 2017: loss £3.1m)
- Half year end free cash £3.9m (31 December 2017: £6.6m)
- Loans and borrowings £Nil (H1 2017: £Nil)
- Profit from discontinued operations £Nil (H1 2017 £Nil)

Income Statement

	H1 18 £m	H1 17 £m	Movement £m	%	FY 2017 £m
Continuing operations:					
Revenue	**1.2**	**0.9**	**0.3**	***33***	**2.2**
Cost of sales	(0.4)	-	(0.4)	*n/a*	(0.3)
Gross profit	**0.8**	**0.9**	**(0.1)**	***(15)***	**1.9**
Administrative expenses (excl. SBP)	(6.2)	(3.7)	(2.5)	*(66)*	(9.0)
Trading loss	**(5.4)**	**(2.8)**	**(2.6)**	***(92)***	**(7.1)**
Share-based payments (SBP)	(0.3)	(0.3)	-	*17*	(0.1)
Operating loss	**(5.7)**	**(3.1)**	**(2.6)**	***(82)***	**(7.2)**
Net financing expense (mainly FX)	(0.1)	(0.1)	-	*(60)*	(0.1)
Loss before tax	**(5.8)**	**(3.2)**	**(2.6)**	***(81)***	**(7.3)**
Income tax	-	-	-	*n/a*	0.1
Loss from continuing operations	**(5.8)**	**(3.2)**	**(2.6)**	***(82)***	**(7.2)**
Loss from discontinued operations	-	-	-	*n/a*	(0.1)
Loss for the period	**(5.8)**	**(3.2)**	**(2.6)**	***(84)***	**(7.3)**
Trading loss	(5.4)	(2.8)	(2.6)	*(92)*	(7.1)
Add back depreciation	0.1	-	0.1	*n/a*	0.1
Adjusted EBITDA	**(5.3)**	**(2.8)**	**(2.5)**	***(89)***	**(7.0)**

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Segmental Analysis

	redT				Camco				Group			
	H1 18	H1 17	Movement		H1 18	H1 17	Movement		H1 18	H1 17	Movement	
	£m	£m	£m	%	£m	£m	£m	%	£m	£m	£m	%
Continuing operations:												
Revenue	**0.2**	**0.2**	**-**	***10***	**1.0**	**0.7**	**0.3**	***38***	**1.2**	**0.9**	**0.3**	***33***
Cost of sales	(0.2)	-	(0.2)	*n/a*	(0.2)	-	(0.2)	*n/a*	(0.4)	-	(0.4)	*n/a*
Gross profit	**-**	**0.2**	**(0.2)**	***(91)***	**0.8**	**0.7**	**0.1**	***3***	**0.8**	**0.9**	**(0.1)**	***(15)***
Admin	(5.5)	(3.1)	(2.4)	*(76)*	(0.7)	(0.6)	(0.1)	*(13)*	(6.2)	(3.7)	(2.5)	*(66)*
Trading loss	**(5.5)**	**(2.9)**	**(2.6)**	***(86)***	**0.1**	**0.1**	**-**	***(46)***	**(5.4)**	**(2.8)**	**(2.6)**	***(92)***
Share-based payments	(0.3)	(0.3)	-	*17*	-	-	-	-	(0.3)	(0.3)	-	*17*
Operating loss cont.	**(5.8)**	**(3.2)**	**(2.6)**	***(77)***	**0.1**	**0.1**	**-**	***(28)***	**(5.7)**	**(3.1)**	**(2.6)**	***(82)***
Operating loss discont.	-	-	-	-	-	-	-	-	-	-	-	*n/a*
Operating loss total	**(5.8)**	**(3.2)**	**(2.6)**	***(77)***	**0.1**	**0.1**	**-**	***(33)***	**(5.7)**	**(3.1)**	**(2.6)**	***(85)***
Trading loss	**(5.5)**	**(2.9)**	**(2.6)**	***(86)***	**0.1**	**0.1**	**0.0**	***(46)***	**(5.4)**	**(2.8)**	**(2.6)**	***(92)***
Add back depreciation	0.2	-	0.2	*n/a*	-	-	-	*n/a*	0.2	-	0.2	*n/a*
Adjusted EBITDA	**(5.3)**	**(2.9)**	**(2.4)**	***(84)***	**0.1**	**0.1**	**0.0**	***(46)***	**(5.2)**	**(2.8)**	**(2.4)**	***(89)***

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Cash flow

		H1 18 £m	H1 17 £m	Movem't £m	FY 17 £m
Loss for the year		**(5.8)**	**(3.2)**	**(2.6)**	**(7.3)**
Add back:	SBP	0.2	0.4	(0.2)	0.9
	depreciation	0.2	-	0.2	0.2
	FX movements	0.2	-	0.2	0.1
	taxation	-	-	-	(0.1)
Adjusted EBITDA		**(5.2)**	**(2.8)**	**(2.4)**	**(6.2)**
Movement in:	receivables	1.2	(0.3)	1.5	(1.8)
	inventory	(1.2)	-	(1.2)	(0.6)
	payables	(0.2)	(1.6)	1.4	(2.0)
	deferred income	(0.2)	0.3	(0.5)	1.2
Increase in working capital		**(0.4)**	**(1.6)**	**1.2**	**(3.2)**
Operating cash outflow		**(5.6)**	**(4.4)**	**(1.2)**	**(9.4)**
CAPEX		**(0.3)**	**(0.1)**	**(0.2)**	**(0.5)**
Proceeds from share issues		**3.7**	**14.6**	**(10.9)**	**14.6**
Increase in cash		**(2.2)**	**10.1**	**(12.3)**	**4.7**
Opening cash		6.6	2.4		2.3
FX on cash balances		(0.1)	(0.8)		(0.8)
Closing cash		**4.3**	**11.7**		**6.2**

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Balance sheet

	30 June 18 £m	31 Dec 17 £m	Movement £m
Property, plant and equipment	0.6	0.4	0.2
Intangible assets and goodwill	13.3	13.3	-
Deferred tax assets	0.1	0.1	-
Non-current assets	**14.0**	**13.8**	**0.2**
Inventory	1.8	0.6	1.2
Receivables	1.7	2.9	(1.2)
Payables	(1.4)	(1.5)	0.1
Deferred income	(1.6)	(1.8)	0.2
Working capital	**0.5**	**0.2**	**0.3**
Cash	**4.3**	**6.6**	**(2.3)**
Net assets	**18.8**	**20.6**	**(1.8)**
Equity			
Share capital & premium	101.5	97.8	3.7
Share-based payment reserve	1.9	1.7	0.2
Retained earnings	(84.2)	(78.2)	(6.0)
Translation reserve	1.0	0.9	0.1
Other reserve	(1.4)	(1.4)	-
Non-controlling interest	-	(0.2)	0.2
Total equity	**18.8**	**20.6**	**(1.8)**

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Appendix

Leadership

** Also a member of the Board*

Management Team

Scott McGregor*
Chief Executive Officer

CEO since 2009, extensive experience within mining, finance and technology industries

Fraser Welham*
Chief Finance Officer

Joined 2018 from Green Investment Bank. Previous C-level experience with Element power, Shanks Group plc.

Dave Stewart*
Chief Operating Officer

Joined 2017 from Jabil inc. extensive experience within high growth tech companies (HP, Keysight)

Jean-Louis Cols
Technology Director

Joined 2017 from Logan Energy, previously Group Engineering Director at Intelligent Energy

Adam Whitehead
Head of Research

Joined 2017 from competitor Gildemeister energy storage, where he held Head of Research position

Paul Docherty
Operations Director

Joined 2018 from Jabil Circuit Inc. where he was Business Manager for the redT account

Board of Directors

Dr. Jeff Kenna
Chairman of the Board of Directors

Joined 2006. 30 years managing business in energy sector, policy advisor to EC, World Bank, UN and UK Government

Neil O'Brien
Non-Exec Director

Joined 2016, previously CEO of Alkane Energy from 2008.

Jonathan Marren
Non-Exec Director

Joined 2016, Advisor to company since 2006 with 16 years industry experience. redT CFO 2012-16.

Michael Farrow
Non-Exec Director

Joined 2006. Founder and director of Consortia Partnership Limited, Jersey.