



2021 Half Year Results

Supplementary Data



LTSA balance: Drivers of Civil LTSA balance change

Deferred revenue
reflects difference
between invoiced EFH
receipts and P&L
revenues traded

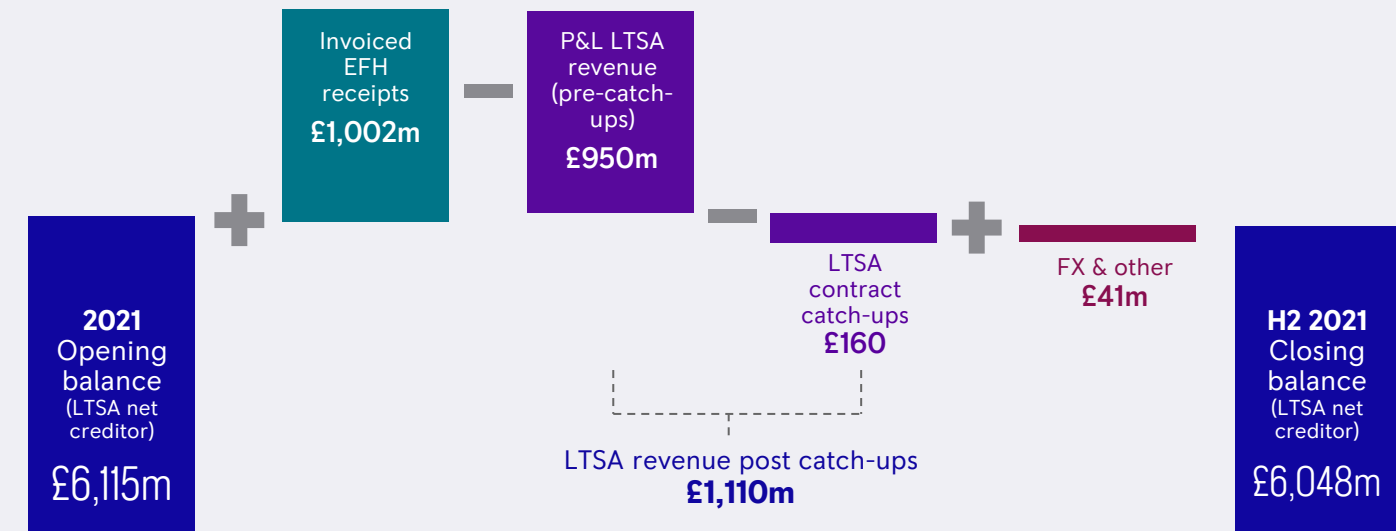
Invoiced EFH receipts

Reflects invoiced EFH receipts on long-term contracts across **entire** Civil LTSA-covered fleet

P&L revenue

Driven by cost (e.g. shop visits) across large engine, business aviation and regional fleets.

Recognised by contract, as costs incurred, at relevant contract margins





2021 guidance summary

Group guidance includes ITP Aero

(discontinued business as at 2021 H1)

	2020	2021
Civil Aerospace Drivers		
Large engine deliveries	264	200-250
Large engine LTSA EFH	6.6m	Gradual recovery
Large engine LTSA major refurb	272	~250
Defence		
Revenue	£3,366m	Stable
Operating margin	13.3%	Stable
Power Systems		
Revenue	£2,745m	Return to growth from H2
Operating margin	6.5%	High single-digit
Trent 1000 in-service cash costs	£(524)m	£(300)m-£(400)m
FX hedge close out cost	£(186)m	£(452)m
Research & Development cash spend	£(904)m	Broadly stable
PPE Capex	£(579)m	£(350)-£(450)m
Net interest received and paid (including fees on undrawn facilities)	£(172)m	~£(250)m
Cash tax	£(231)m	Modestly lower
Pensions (contributions in excess of PBT charge)	£160m	~£(100)m
Group free cash flow	£(4,185)m	~£(2)bn

Significant near term uncertainty over Civil Aerospace outlook

Order recovery in H1 drives acceleration in sales from H2

~£(170)m reported H1

£(303)m reported H1

£(396)m reported H1

£(124)m reported H1

£(116)m reported H1

£(102)m reported H1

£(94)m reported H1

Cash flow positive at some point in H2



Non-operational cash charges

Trent 1000 in-service cash cost schedule:

Costs are included in Group FCF definition

2017-19: £1,023m

2020 £524m

2021 £300m-£400m (H1: ~£170m)

2022 £100m-£200m

2023+ ~£200m

Total: ~£2.2bn

Provisions provided for over half of future costs, remainder will be traded through underlying P&L as previously disclosed

USD hedge book

Cash costs of closing out over-hedge position

Costs are included in Group FCF definition

£m	2020	2021 H1	2021 H2	2022	2023	2024	2025	2026	Total
Cash cost	186	303	149	326	£710m across 2023-26				1,674



Transition to net zero

We have pledged to achieve **net zero carbon** in our operations by 2030 and play a crucial role in enabling the sectors in which we operate reach **net zero by 2050**

Net zero targets

- By 2023, all in-production civil aero engines to be proven compatible with 100% SAFs, contributing to UN Race to Zero breakthrough goal for sustainable aviation
- Show compatibility with SAFs for our in-production Defence aero-engines, subject to customer agreement by 2023
- Science-based target to reduce lifetime emissions of new sold products from Power Systems by 35% by 2030; new generation Series 2000, 4000 engines to be certified for sustainable fuel by 2023
- Increasing proportion of gross R&D spent on lower carbon and net zero technologies to 75% by 2025 to decarbonise transport, energy and the built environment
- New products compatible with net zero by 2030, whole business compatible by 2050



Foreign exchange

Rolls-Royce hedges transactional FX

- Transactional exposure arises when revenue currencies differ from cost currencies
- Achieved rate is not typically affected by short-term spot rate movements unless new cover is taken; this impact is usually diluted
- \$24 billion GBP:USD hedge book
- Hedge book average rate is £/\$1.52
- \$4 billion EUR:USD hedge book
- Hedge book average rate is €/ \$1.25

Rolls-Royce does not hedge against the impact of translational FX

- Translational exposure varies by source of revenues and profits
- Translational FX impact is driven by period average spot rates
- Translational impact increases as rate reduces

Translational impact of 0.01 unit of currency change in period average rates

	Revenue	Profit
USD	~£8 million	~£1 million
EUR	~£16 million	~£1 million



Foreign exchange: Translational impact

The impact of translational foreign exchange is driven by period average spot rates

EXPOSURE			UNDERLYING REVENUE IMPACT		UNDERLYING OPERATING PROFIT IMPACT	
2020 vs. 2021 £m	Revenue	Profit	Inc FX	FX	Inc FX	FX
Group			5,227	(121)	307	(19)
Civil Aerospace	USD, EUR	USD, EUR	2,168	(12)	39	(5)
Defence	USD, EUR	USD, EUR	1,721	(98)	269	(13)
Power Systems	EUR, USD	EUR, USD	1,181	(8)	41	(1)
Other Businesses	EUR	EUR	152	(3)	5	0
Corporate / eliminations			5	0	(47)	0

Period average rates	2021	2020
USD	1.39	1.26
EUR	1.15	1.14



Pensions HY21

UK DB Plan continues to have a strong surplus
£888m

The UK DB Plan closed to future accrual on 31 December 2020

No further significant contributions expected to be paid to the UK DB Plan

UK Defined Benefit (DB) Plan

- UK DB Plan closed to future accrual on 31 December 2020 (it was closed to new hires in 2007). Just over 7,000 employed members onboarded to our UK Defined Contribution (DC) Plan on 1 January 2021 on 12% employer contributions (employees: 6%).
- UK DB plan represents 78% of gross liabilities and 91% of gross assets for group.
- £8.8bn of assets and surplus of £888m (IAS 19 basis*). A reduction in liabilities of £1bn was matched by reduction in the value of the assets.
- 90% of assets in low risk investments to match liabilities - key to protecting the funding position in low yield environment.
- Statutory funding valuation due as at 31 March 2020 now agreed with Trustee. The statutory funding surplus at 30 June 2021 is estimated at £916m.
- Cash contributions:
2019: £174m
2020: £24m
2021: £99m**

Overseas plans

- 22% of gross liabilities and 9% of gross assets.
- Deficit of £1.4bn (IAS 19 basis) largely made up of the following unfunded obligations:
 - US healthcare: £443m
 - German retirement benefits: £907m
- Cash contributions:
2019: £80m
2020: £56m
2021: £32m (year to date)

*IAS 19 reporting basis discounts liabilities using a AA bond rate - while this is the required reporting method it does not match the method used to manage and fund the UK plan - which discounts liabilities using a curve aligned to its Liability Driven Investments (gilt based). This significantly reduces the real funding volatility relevant for cash funding purposes rather than that shown for IAS 19.

**Contributions paid in 2021 relate to contributions from 2020 deferred by agreement with the Trustee. No further significant contributions are expected to be paid in 2021.



Civil revenues by engine type

COVID-19 impact seen
across OE and Services

£m	HY 2021	HY 2020	Organic change ¹
Original Equipment	722	1,187	(39%)
Large engine	607	854	(29%)
Business aviation	113	326	(66%)
V2500	2	7	(71%)
Service	1,446	1,329	10%
Large engine	1,036	649	60%
Business aviation	295	207	47%
Regional	63	126	(47%)
V2500	52	347	(85%)
TOTAL	2,168	2,516	(13%)



Trent engine products

Leading widebody
market share

£m	Airframe	Market share*	Engines in service	Engines on order
Trent 7000	Airbus A330neo	100%	94	516
Trent XWB	Airbus A350	100%	714	919
Trent 1000	Boeing 787	33%	566	127
Trent 900	Airbus A380	48%	92	2
Trent 800	Boeing 777	40%	160	0
Trent 700	Airbus A330	60%	1,050	2
Trent 500	Airbus A340	100%	88	0
			2,764	1,566



Civil engine deliveries

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	H1 2021
By engine																			
RB211 22B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RB211 524	2	5	7	0	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0
RB211 535	14	6	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
RB211 Total	16	11	7	2	5	5	1	0	0	0	0	0	0	0	0	0	0	0	0
Trent 500	88	115	88	97	45	45	57	16	1	8	0	0	0	0	0	0	0	0	0
Trent 700	35	30	54	59	75	88	125	139	135	157	181	184	140	88	110	63	10	2	0
Trent 800	30	15	21	25	10	7	9	0	0	0	0	0	0	0	0	0	0	0	0
Trent 900				20	10	48	33	30	70	64	42	35	6	30	67	44	34	15	0
Trent 1000									18	46	59	79	106	122	109	125	126	82	11
Trent XWB-84												13	56	117	196	184	178	109	60
Trent XWB-97															1	45	56	34	9
Trent 7000																8	106	22	20
Trent	153	160	163	201	140	188	224	185	224	275	282	311	308	357	483	469	510	264	100
Civil Large Engines	169	171	170	203	145	193	225	185	224	275	282	311	308	357	483	469	510	264	100
Tay	48	43	55	66	80	92	68	51	57	60	67	46	38	28	2	0	0	0	0
AE3007	217	242	168	113	135	135	32	55	31	43	78	48	34	20	8	10	4	0	0
BR700	96	131	161	155	183	216	172	184	232	290	326	334	332	244	190	205	191	112	28
Pearl																2	22	72	20
Civil Small Engines	361	416	384	334	398	443	272	290	320	393	471	428	404	292	200	217	219	184	48
V2500*	216	237	327	319	308	351	347	371	418	220	0	0	0	0	0	0	0	0	0
Civil Total	746	824	881	856	851	987	844	846	962	888	753	739	712	649	683	686	729	448	148

* V2500 deliveries are recorded until the sale of Rolls-Royce's stake in International Aero Engines on 29th June 2012



Civil engine in-service installed fleet**

Fleet data from Cirium
excludes aircraft
temporarily parked due
to COVID-19

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 H1
By engine																			
RB211 22B	48	36	36	12	15	9	12	9	6	6	3	3	3	3	3	3	3	3	3
RB211 524	829	815	796	791	769	706	643	638	617	530	455	352	302	278	266	242	210	82	80
RB211 535	1,154	1,192	1,168	1,174	1,158	1,102	1,078	1,056	1,052	1,028	1,026	1,012	908	868	826	850	824	576	634
RB211 Total	2,031	2,043	2,000	1,977	1,942	1,817	1,733	1,703	1,675	1,564	1,484	1,367	1,213	1,149	1,095	1,095	1,037	661	717
Trent 500	120	212	292	380	412	432	464	492	480	452	440	388	352	336	280	284	240	68	88
Trent 700	234	264	306	364	422	492	590	696	816	948	1,114	1,288	1,388	1,460	1,590	1,636	1,606	1,054	1,050
Trent 800	376	392	406	430	444	442	448	450	444	446	436	422	362	352	330	334	320	134	160
Trent 900	0	0	0	0	4	36	60	80	140	208	244	280	304	332	360	400	428	68	92
Trent 1000	0	0	0	0	0	0	0	0	6	44	84	164	260	384	476	546	658	538	566
Trent XWB-84	0	0	0	0	0	0	0	0	0	0	0	2	30	124	278	432	590	562	616
Trent XWB-97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	70	96	98
Trent 7000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	80	90	94
Trent	730	868	1,004	1,174	1,282	1,402	1,562	1,718	1,886	2,098	2,318	2,544	2,696	2,988	3,314	3,662	3,992	2,610	2,764
Civil Large Engines	2,761	2,911	3,004	3,151	3,224	3,219	3,295	3,421	3,561	3,662	3,802	3,911	3,909	4,137	4,409	4,757	5,029	3,271	3,481
Spey	1,090	1,024	992	946	914	864	802	760	702	632	580	506	460	430	404	360	284	252	232
Tay	1,599	1,572	1,623	1,755	1,769	1,825	1,861	1,869	1,917	1,969	2,019	2,011	2,035	2,027	1,993	2,009	1,946	1,892	1,884
AE3007	1,934	2,164	2,328	2,458	2,564	2,520	2,528	2,562	2,550	2,544	2,598	2,534	2,468	2,326	2,302	2,448	2,472	2,028	2,096
BR700	864	990	1,144	1,272	1,446	1,560	1,752	1,910	2,128	2,362	2,696	2,964	3,388	3,642	3,858	4,098	4,322	4,314	4,332
Pearl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	58
Civil Small Engines	5,487	5,750	6,087	6,431	6,693	6,769	6,943	7,101	7,297	7,507	7,893	8,015	8,351	8,425	8,557	8,915	9,024	8,522	8,602
V2500*	930	1,054	1,196	1,348	1,492	1,613	1,722	1,852	2,002	0	0	0	0	0	0	0	0	0	0
Civil Total	9,178	9,715	10,287	10,930	11,409	11,601	11,960	12,374	12,860	11,169	11,695	11,926	12,260	12,562	12,966	13,672	14,053	11,793	12,083
Fleet growth	8%	6%	6%	6%	4%	2%	3%	3%	4%	-13%	5%	2%	3%	2%	3%	5%	3%	-16%	2%

* 50% of the total V2500 fleet included

** Installed engine base is net of retirements and excludes aircraft which are parked or in storage



Civil in-service thrust base (millions lbs)**

Fleet data from Cirium excludes aircraft temporarily parked due to COVID-19

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 H1
By engine	Thrust per engine (lbs)																			
RB211 22B	60,000	3	2	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
RB211 524	60,000	50	49	48	47	46	42	39	38	37	32	27	21	18	17	16	15	13	5	5
RB211 535	40,000	46	48	47	47	46	44	43	42	42	41	41	40	36	35	33	34	33	23	25
RB211 Total		99	99	97	95	93	87	82	81	79	73	69	62	55	52	49	49	46	28	30
Trent 500	56,000	7	12	16	21	23	24	26	28	27	25	25	22	20	19	16	16	13	4	5
Trent 700	72,000	17	19	22	26	30	35	42	50	59	68	80	93	100	105	114	118	116	76	76
Trent 800	92,000	35	36	37	40	41	41	41	41	41	41	40	39	33	32	30	31	29	12	15
Trent 900	70,000	0	0	0	0	0	3	4	6	10	15	17	20	21	23	25	28	30	5	6
Trent 1000	71,000	0	0	0	0	0	0	0	0	0	3	6	12	18	27	34	39	47	38	40
Trent XWB-84	84,000	0	0	0	0	0	0	0	0	0	0	0	0	3	10	23	36	50	47	52
Trent XWB-97	97,000														0	0	3	7	9	10
Trent 7000	72,000														0	0	0	6	7	7
Trent		58	67	76	87	95	103	114	125	137	152	168	185	196	217	243	270	297	198	210
Civil Large Engines		157	166	172	182	188	190	196	206	216	226	237	247	251	269	292	319	343	226	240
Spey	11,000	12	11	11	10	10	10	9	8	8	7	6	6	5	5	4	4	3	3	3
Tay	15,000	24	24	24	26	27	27	28	28	29	30	30	30	31	30	30	30	29	28	28
AE3007	7,500	15	16	17	18	19	19	19	19	19	19	19	19	19	17	17	18	18	15	16
BR700	15,000	13	15	17	19	22	23	26	29	32	35	40	44	51	55	58	61	65	65	65
Pearl	15,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Civil Small Engines		63	66	70	74	78	79	82	84	88	91	97	99	105	107	109	114	116	112	112
V2500*	27,500	26	29	33	37	41	44	47	51	55	0	0	0	0	0	0	0	0	0	0
Civil Total		246	261	275	294	306	313	326	341	359	317	333	346	356	376	402	433	459	338	353
Thrust Growth		9%	6%	6%	7%	4%	2%	4%	5%	5%	-12%	5%	4%	3%	6%	7%	8%	6%	-26%	4%



Safe harbour statement

This announcement contains certain forward-looking statements. These forward-looking statements can be identified by the fact that they do not relate only to historical or current facts. In particular, all statements that express forecasts, expectations and projections with respect to future matters, including trends in results of operations, margins, growth rates, overall market trends, the impact of interest or exchange rates, the availability of financing to the Company, anticipated cost savings or synergies and the completion of the Company's strategic transactions, are forward-looking statements. By their nature, these statements and forecasts involve risk and uncertainty because they relate to events and depend on circumstances that may or may not occur in the future. There are a number of factors that could cause actual results or developments to differ materially from those expressed or implied by these forward-looking statements and forecasts. The forward-looking statements reflect the knowledge and information available at the date of preparation of this announcement, and will not be updated during the year. Nothing in this announcement should be construed as a profit forecast. All figures are on an underlying basis unless otherwise stated - see note 2 of the Financial Review section of the 2021 Half Year Results Statement for the definition.