



## CONTENTS



Payback and savings at a glance



Fan Arrays - our scope



Motor Changes Only - our scope Thank you



**Next steps** 



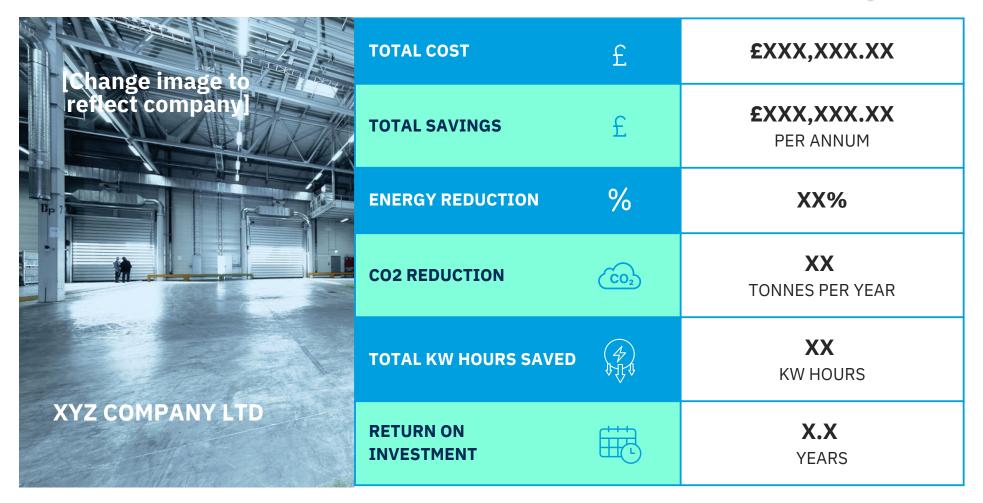
Appendix - The details



We also need you to know



#### PAYBACK & SAVINGS AT A GLANCE



<sup>\*</sup>Savings based on .XXX pence per KW

#### **FAN ARRAYS**

#### - OUR SCOPE OF WORKS

- Provide method and risk assessments.
- Carry out technical survey to include obtaining existing total pressures (recorded) to compare with the data from the client re the AHU design and to measure for new components.
- Provide fan selection including fan curves showing the actual air volume against the speed and pressure.
- Isolate the AHU and lock off the power supply.
- Disconnect the existing fan and retain the existing power supply to re-use.
- Remove the existing fan, motor assembly and fan frame.
- Supply and install new metal work to allow for the fan wall to be installed, along with suitable support framework for the top-level fans, the new additional framework would be manufactured from galvanised steel.

- Supply and install a suitable TP+E distribution board complete with suitably sized main switch and suitable outgoing TP MCB's.
- Extend from the distribution board with LSF SWA to the new fan assemblies interconnecting the locally mounted speed controllers and locally mounted isolators.
- Complete all terminations at the distribution board and ancillaries in accordance with the IEE wiring regulations.
- Change the existing lighting within the fan section to suit the new layout.
- Supply and install manual shut off damper per fan c/w lockable handle (should a fan fail).

- Modify the existing door arrangement to suit the new layout and fit door guard.
- Supply and install positive pressure warning label on the new access door.
- Run and test the new fans in conjunction BMS specialist and set fans to speed to suit the required air volume and pressure.
- Remove all redundant materials in conjunction with the Future Motors scope only. To be discussed
- Provide electrical certifications for all electrical alterations upon completion of works.
- Provide full handover details &
   O&M information for the new fans

## MOTOR CHANGES ONLY - OUR SCOPE OF WORKS

- Provide method and risk assessments.
- Carry out technical survey to include obtaining existing total pressures (recorded) to compare with the data from the client.
- Isolate the AHU and lock off the power supply.
- Electrically disconnect the existing power to the single motor.
- Remove the existing fan motor.
- Supply and install Motor and associated frame conversion kit where required.
- Replace existing Belts, Pulley's and Taper locks
- Run and test the fan with the new motor fitted and set fans to speed to suit the required air volume and pressure.

- Remove all redundant materials in conjunction with the Future Motors scope only. To be discussed
- Provide full handover details & O&M information for the new fans.

Exclusions (unless otherwise stated)

- BMS / Control's connection / disconnection / modification
- Project management
- Validation/revalidation and commissioning. (Setting fans back to original pressures only as per survey findings)
- Anything not specifically mentioned above.



## **NEXT STEPS**

On receipt of your order Future Motors, will carry out a more in-depth survey. The additional survey will include:

- Measure the airflow at 100%, 75%, 50% of the existing motor
- Measure the static pressure at each point
- Measure the internals of the existing AHUs to prepare drawings for the fan array assemblies and any AHU modifications required including moving access doors where required.
- Issue Fan Impellor selection data (Fan Arrays only)



# 1

# APPENDIX THE DETAILED COMMERCIALS

### **INDICATIVE PROPOSAL**

#### Customer

Site:

#### AHU Reference

AHU 1 Pool Unit Supply
AHU 1 Pool Unit Extract
AHU 2 Pool Unit Supply
AHU 2 Pool Unit Extract
AHU 3 Pool Unit Supply
AHU 3 Pool Unit Extract
AHU 4 Café Gym Supply
AHU 4 Café Gym Supply
AHU 5 Change areas Supply
AHU 5 Change areas Extract
AHU 6 Supply
AHU6 Extract
AHU 7 Kitchen Supply only
AB AHU Pool Supply
AB AHU Pool Extract
AB AHU Ground Flour Supply
AB AHU Ground Flour Extract
AB First Floor Supply
AB First Floor Extract
AB AHU Kichen Supply
AB AHU Kichen Extract
TDG AHU Sports Hall Supply

TDG AHU Sports Hall Extract

$\neg$		Existing	Motor
	Qty	Size (Kw)	Calculated D
	1	15.0	9.68

1	15.0	9.68
1	11.0	7.04
1	15.0	9.60
1	11.0	7.04
1	11.0	7.04
1	11.0	7.04
1	7.5	4.80
1	4.0	2.56
1	7.5	4.80
1	7.5	4.80
1	2.2	1.41
1	1.1	0.70
1	2.2	1.41
1	11.0	5.67
1	11.0	5.67
1	3.0	2.66
1	3.0	1.83
0	0.0	1.18
0	0.0	1.18
1	3.0	1.26
1	3.0	1.47
1	6.5	3.53
1	5.5	2.94
1		4.12

Proposed Solution	New Motor(s)	Qty	New Total Capacity (Kw)*	Total
Fan Array	VO3	2	15	£ 25,393.8
Fan Array	VO3	2	15	€ 25,393.8

Proposed Solution	New Motor(s)	Qty	Capacity (Kw)*		Total
Fan Array	VO3	2	15	E	25,393.86
Fan Array	VO3	2	15	i £	25,393.86
Belts & Pulleys	VO3H	1	10.5		5,209.00
Belts & Pulleys	VO3H	1	10.5	£	5,209.00
Belts & Pulleys	VO3H	1	10.5	I £	5,209.00
Belts & Pulleys	VO3H	1	10.5	£	5,209.00
Belts & Pulleys	VO3H	1	10.5		5,209.00
Belts & Pulleys	VO3H	1	10.5	E	5,209.00
Belts & Pulleys	VO3H	1	10.5	£	5,209.00
Belts & Pulleys	VO3H	1	10.5	£	5,209.00
Belts & Pulleys	VO1	1	2.2	£	2,521.00
Belts & Pulleys	VO1	1	2.2	E	2,521.00
Belts & Pulleys	VO1	1	2.2	£	2,521.00
Belts & Pulleys	VO3H	1	10.5	£	5,209.00
Belts & Pulleys	VO3H	1	10.5	E	5,209.00
Belts & Pulleys	VO2	1	4	£	3,960.00
Belts & Pulleys	VO2	1	4	£	3,960.00
Belts & Pulleys	VO2	1	4	£	3,960.00
Belts & Pulleys	VO2	1	4	£	3,960.00
Belts & Pulleys	VO2	1	4	£	3,960.00
Belts & Pulleys	VO2	1	4	£	3,960.00
Belts & Pulleys	VO3	1	7.5	E	4,858.00
Belts & Pulleys	VO3	1	7.5	£	4,858.00
Direct Drive	VO3H	1	10.5	£	12,730.43

#### Energy Price £0.432 / kWh

Daily Run Hours Days		Davs Usage I		kWh / Current Energy Cos		
24		8736	84528.58	T e	36,516,34	
+	<u>-</u>	<del></del>	+	t-		
24	<u>-</u>	8736	61516.59		26,575.17	
24		8736	83886.26	<u>. E .</u>	36,238,86	
24	7	8736	61516.59	£	26,575.17	
24	7	8736	61516.59	LE_	26,575.17	
24	7	8736	61516.59	£	26,575.17	
24	7	8736	41943.13		18,119,43	
24	7	8736	22369.67	£	9,663.70	
24	7	8736	41943.13	£	18,119.43	
24	7	8736	41943.13	£	18,119.43	
24	7	8736	12303.32	£	5,315.03	
24	7	8736	6151.66	E	2,657.52	
24	7	8736	12303.32	£	5,315.03	
24	7	8736	49561.98	E	21,410.77	
24	7	8736	49561.98	16	21,410.77	
24	7	8736	23271.04	E	10,053.09	
24	7	8736	15987.73	E	6,906,70	
24	7	8736	10283.08	T E	4,442.29	
24	7	8736	10283.08	6	4.442.29	
24	<del>-</del>	8736	10968.61	TE-	4,738.44	
24	<del>-</del>	8736		†ē−	5,552.86	
24		8736	30849.23	t	13,326.87	
		8736	25707.69	† <del>-</del> -		
24		8736	35990.76	+=-	15,548.01	

Proposed Energy Saving (%)	Proposed Energy Saving (kWh)	Proposed Energy Saving (£'s)		(tCo2e / Year)	
32%	27049.14	£	11,685.23	5.68	
32%	19685.31	E	8,504.05	4.13	
25%	20971.57	€	9,059.72	4.40	
25%	15379.15	E	6,643.79	3.23	
25%	15379.15	E	6,643.79	3.23	
25%	15379.15	£	6,643.79	3.23	
24%	10066.35	6	4,348.66	2.11	
24%	5368.72	E	2,319.29	1.13	
24%	10066.35	£	4,348.66	2.11	
24%	10066.35	£	4,348.66	2.11	
34%	4183.13	£	1,807.11	0.88	
42%	2583.70	E	1,116.16	0.54	
34%	4183.13	£	1,807.11	0.88	
24%	11894.87	£	5,138.59	2.50	
24%	11894.87	E	5,138.59	2.50	
24%	5585.05	E	2,412.74	1.17	
24%	3837.06	£	1,657.61	0.81	
24%	2467.94	£	1,066.15	0.52	
24%	2467.94	£	1,066.15	0.52	
24%	2632.47	E	1,137.23	0.55	
24%	3084.92	£	1,332.69	0.65	
24%	7403.81	E	3,198.45	1.55	
24%	6169.85	£	2,665.37	1.30	
35%	12596.77	E	5,441.80	2.65	

Proje	ct Manag	gement	£	7,832.36
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Total Price	£	164,479.50
Energy Saving (kWh)		230,397
Carbon Saving (Tonnes)		48.38
Energy Savings	£	99,531.39
ROI (Years)		1.65

	% Payment	% Payment Value of Invo	
Payment due upon PO Receipt (30 Days)	40	£	65,791.80
(Optional) Interim Payment (30 Days)	0	£	-
Balance due upon Completion (30 Days)	60	£	98,687.70

#### **Conditions and Assumptions:**

This ROI Calculation is Indicative and is valid for a period of 30 Days from

12 August 2023

Pressures and Flow Surveys will need to be completed in the case any Direct Drive Conversion or Fan Array installation

Quotation includes installation and works taking place within normal working hours (Mon - Fri)

### WE ALSO NEED YOU TO KNOW

- We have assumed safe working access will be provided at the site and that all works will be carried out during normal working hours unless stated.
- All design liabilities and specification requirements are excluded unless specifically referenced in the above scopes and quote.
- In the event of a unagreed cancellation by the customer we reserve the right to issue a charge to recover costs for materials and / or labour commitments.
- This quotation is only valid for a maximum of 30 days from the proposal date.
- We reserve the right at any time to amend or withdraw this quotation.
- In the event that post order surveys highlight additional costs we will inform the customer and gain agreement before proceeding with the work.

- It is the responsibility of the customer to ensure that the products offered meet the required duty and/or specification.
- Our current lead in time is approximately 6-8 weeks for fan arrays and 2-3 weeks for motor changes.
- VAT charged at the standard rate on all prices.
- Future Motors will invoice 40% of the charges on receipt of purchase order, 40% on delivery of the goods, 15% in accordance with the installation schedule, and 5% at project sign off.
- The Customer shall pay invoices in full and in cleared funds within 30 days of the date of invoice. Payment shall be made to the bank account nominated in writing by the Supplier.
- Future Motors Terms and Conditions would apply to all orders. These can be found at www.futuremotors.co.uk/contract



## THANK YOU



Material Impact on Energy & Carbon/Fast ROI



Fast and Straightforward Deployment



**Intelligence** and Control

We trust our proposal meets with your approval and look forward to receiving your instruction to complete the works. However, should you have any queries please do not hesitate to contact:

[NAME] [TITLE]

[EMAIL]
[TELEPHONE NUMBER]