Case Study - Audit

Energy Savings by installing a more efficient pump.

A power station required a replacement pump to pump process water form a lagoon.

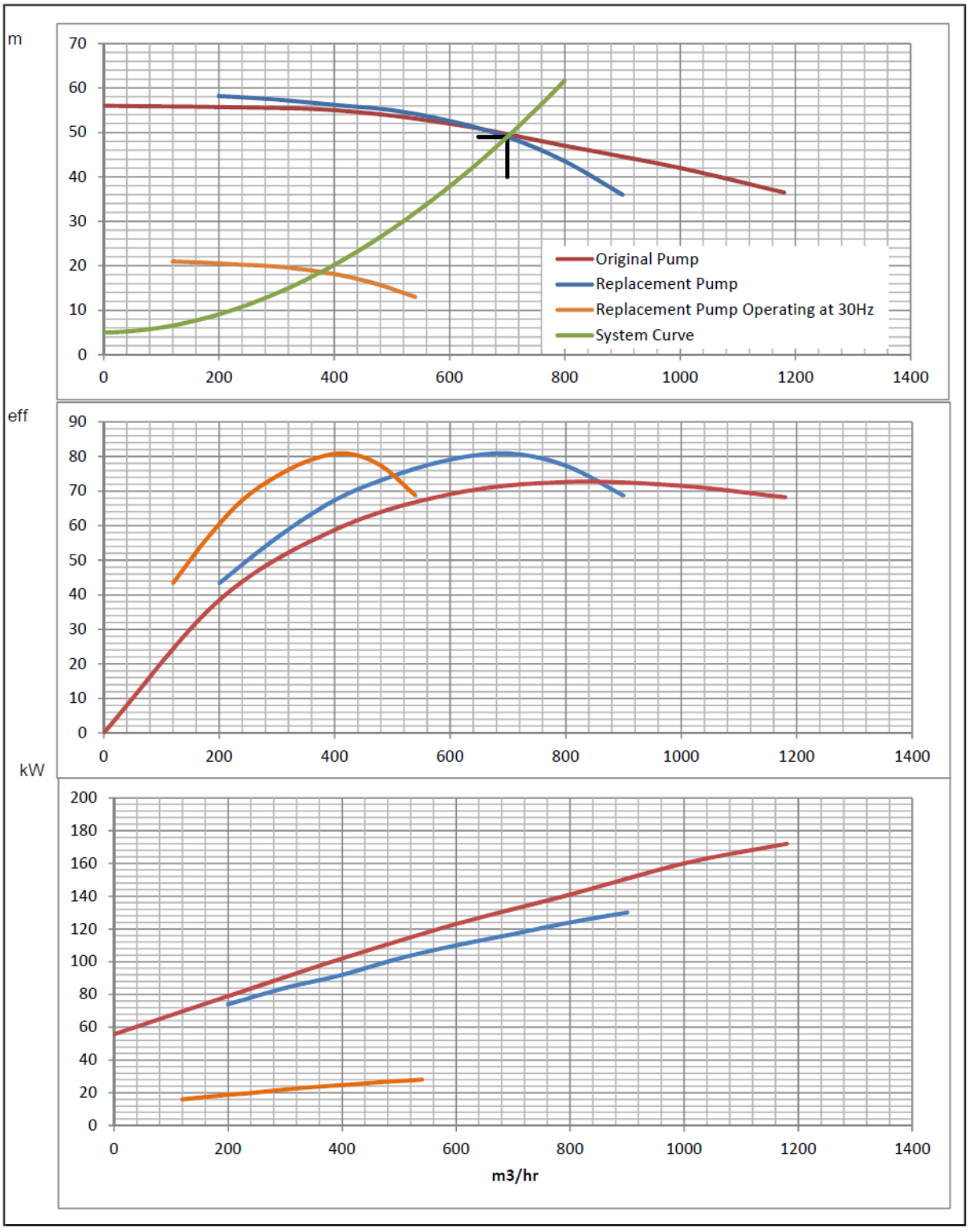
The pump needed to be replaced as it was un-economical to repair ERIKS were invited to quote for a replacement pump that met the design duty of 700 m3/hr @ 49m and constructed from plastic ERIKS approached their partner supplier for a suitable pump to meet the duty ERIKS pump supplier was able to offer a pump that was more efficient.

With the increase in efficiency the client was able to save £14,700.00 year on energy with a like for like replacement. ERIKS established from the client that the process demand was variable, and any unwanted flow was returned to the lagoon via bypass line.

ERIKS recommended that if the system was inverter controlled there could be a further potential energy saving of £52,300 per annum.

Manufacturer		Original	Replacement
Operation		Duty	Duty
Flow	m^3/hr	700	700
Total Head	m	49	49
Pump speed	rpm	1450	1450
Number hours operating	per annum	8750	8750
Pump efficiency	%	68.4	80
Motor rated power	kW	200	200
Pump shaft power	kW	136.5	116.3
Motor efficiency	%	94.1	93.8
Motor power factor	%	84.7	82.5
Motor current	amps	238.1	109
Motor power	kW	145	124
Annual energy	MWH	1270.2	1086.2
Cost per unit	£	£ 0.08	£ 0.08
Annual cost	£	£ 101,600.00	£ 86,900.00

Comparison Curve



CPSA
CERTIFIED PUMP SYSTEM AUDITOR