Efficiency Report

SUMMARY

Pumps----

--

5 pumps with a

-$120,859.22

Annual Savings Potential

ASSESSMENTS

Export to CSV | Print Report

Pumps

Examp PSAT

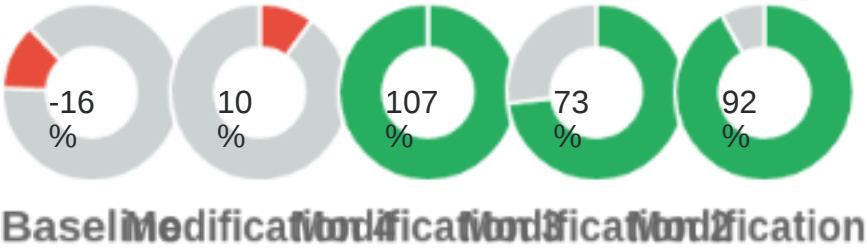
New Assess

Plant A Pump 1

Plant B

Example PSAT Report

Report Summary



Optimization Rating	Optimization Rating	Optimization Rating	Optimization Rating	Optimization Rating
-$227,93	$39,505	-$3,110	$1,611	$24
Annual Savings	Annual Savings	Annual Savings	Annual Savings	Annual Savings

51.14

Pump 1 Potential Potential Potential Potential Potential

Plant B Pump 2

Report Details

	Existing	Optimal	Modification 4	Modification 3	Modification 2
Pump efficiency (%)	00.03	86.75	06.25	94.32	63.88
Motor rated power (hp)	200.00	100.00	200.00	200.00	200.00
Motor shaft power (hp)	285,601.67	93.61	127.13	127.13	127.13
Pump shaft power (hp)	285,601.67	93.61	127.13	127.13	127.13
Motor efficiency (%)	-47,674.74	95.03	94.84	94.84	94.84
Motor power factor (%)	-∞	85.98	81.11	81.11	81.11
Motor current (amps)	00.00	102.81	148.29	148.29	148.29
Motor power (hp)	-446.90	73.49	100.00	100.00	100.00
Annual Energy (MWh)	**-3,914.85**	**643.78**	**876.00**	**876.00**	**876.00**
Annual Cost	**-195,742.59**	**32,188.86**	**43,800.00**	**43,800.00**	**43,800.00**

Input Data

	Baseline	Modification 4	Modification 3	Modification 2	Modificatio 1
PUMP / FLUID					
Pump Type	End Suction ANSI/API	End Suction ANSI/API	End Suction ANSI/API	End Suction ANSI/API	End Suction ANSI/API
Pump RPM	1,780.00	1,780.00	1,780.00	1,780.00	1,780.00
Drive	Direct Drive	Direct Drive	Direct Drive	Direct Drive	Direct Drive
Kinematic Viscosity (cST)	01.00	01.00	01.00	01.00	01.00
Specific Gravity	01.00	01.00	01.00	01.00	01.00
Stages	02.00	02.00	02.00	02.00	02.00
Fixed specifc speed?	No	No	No	No	No
MOTOR					
Line Frequency	60 Hz Hz	60 Hz	60 Hz	60 Hz	60 Hz
Horse Power	200.00 hp	200.00	200.00	200.00	200.00
Motor (RPM)	1,780.00	1,780.00	1,780.00	1,780.00	1,780.00
Efficiency Class	Specified	Specified	Specified	Specified	Specified
Voltage	460.00	460.00	460.00	460.00	460.00
Full-Load Amps	225.00	225.00	225.00	225.00	225.00
Size Margin	00.00	00.00	00.00	00.00	00.00
FIELD DATA					
Operating Fraction	01.00	01.00	01.00	01.00	01.00

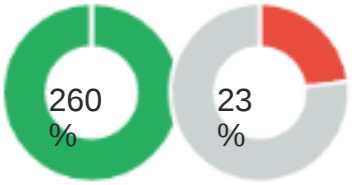
	Baseline	Modification 4	Modification 3	Modification 2	Modificatio 1
Cost (kW/hr)	00.05	00.05	00.05	00.05	00.05
Flow Rate (gpm)	1,840.00	180.00	2,500.00	1,840.00	1,840.00
Head (ft)	174.85	174.85	190.00	174.85	174.85
Load Estimated Method	Current	Power	Power	Power	Power
Motor Power (amps)					
Voltage	480.00	480.00	480.00	480.00	480.00

New Assessment Report

This assessment has not been completed, please complete this assessment to see the resulting data.

Plant A Pump 1 Report

Report Summary



Baseline Modification 1

Optimization Rating

Optimization Rating

-$32,626

$290,088.91

Annual Savings Potential

Annual Savings Potential

Report Details

	Existing	Optimal	Modification 1
Pump efficiency (%)	00.62	67.31	17.87
Motor rated power (hp)	200.00	300.00	200.00
Motor shaft power (hp)	13,997.65	128.20	482.88
Pump shaft power (hp)	13,997.65	128.20	482.88
Motor efficiency (%)	26,931.51	94.83	83.39
Motor power factor (%)	270.36	64.78	91.49
Motor current (amps)	18.00	195.39	592.66
Motor power (hp)	38.77	100.85	432.00
Annual Energy (MWh)	**339.65**	**883.43**	**3,784.32**
Annual Cost	**20,379.27**	**53,005.85**	**378,432.00**

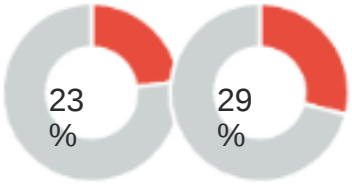
Input Data

	Baseline	Modification 1
PUMP / FLUID		
Pump Type	End Suction Slurry	End Suction Slurry
Pump RPM	1,780.00	1,780.00
Drive	Direct Drive	Direct Drive
Kinematic Viscosity (cST)	01.00	01.00
Specific Gravity	01.00	01.00

	Baseline	Modification 1
Stages	01.00	01.00
Fixed specifc speed?	Yes	Yes
MOTOR		
Line Frequency	50 Hz Hz	60 Hz
Horse Power	200.00 hp	200.00
Motor (RPM)	1,485.00	1,780.00
Efficiency Class	Energy Efficient	Energy Efficient
Voltage	208.00	460.00
Full-Load Amps	225.80	225.80
Size Margin	01.00	01.00
FIELD DATA		
Operating Fraction	01.00	01.00
Cost (kW/hr)	00.06	00.10
Flow Rate (gpm)	1,234.00	1,234.00
Head (ft)	277.00	277.00
Load Estimated Method	Current	Power
Motor Power (amps)	18.00	
Voltage	460.00	460.00

Plant B Pump 1 Report

Report Summary



Baseline Modification 1

Optimization Rating

Optimization Rating

$60,711.56

$56,053.22

Annual Savings Potential

Annual Savings Potential

Report Details

	Existing	Optimal	Modification 1
Pump efficiency (%)	03.63	30.21	05.45
Motor rated power (hp)	200.00	2,000.00	200.00
Motor shaft power (hp)	192.40	23.15	192.40
Pump shaft power (hp)	192.40	23.15	192.40
Motor efficiency (%)	95.69	49.10	95.69
Motor power factor (%)	82.48	07.39	82.48
Motor current (amps)	228.26	585.56	228.26
Motor power (hp)	150.00	34.49	150.00
Annual Energy (MWh)	**1,314.00**	**302.14**	**1,314.00**
Annual Cost	**78,840.00**	**18,128.62**	**78,840.00**

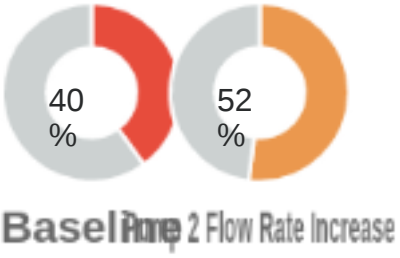
Input Data

	Baseline	Modification 1
PUMP / FLUID		
Pump Type	End Suction Slurry	End Suction Slurry
Pump RPM	1,780.00	1,780.00
Drive	Direct Drive	Direct Drive
Kinematic Viscosity (cST)	01.00	01.00
Specific Gravity	01.00	01.00

	Baseline	Modification 1
Stages	01.00	01.00
Fixed specifc speed?	Yes	Yes
MOTOR		
Line Frequency	60 Hz Hz	60 Hz
Horse Power	200.00 hp	200.00
Motor (RPM)	1,780.00	1,780.00
Efficiency Class	Energy Efficient	Energy Efficient
Voltage	460.00	460.00
Full-Load Amps	237.00	237.00
Size Margin	80.00	80.00
FIELD DATA		
Operating Fraction	01.00	01.00
Cost (kW/hr)	00.06	00.06
Flow Rate (gpm)	100.00	150.00
Head (ft)	277.00	277.00
Load Estimated Method	Power	Power
Motor Power (kW)	150.00	150.00
Voltage	460.00	460.00

Plant B Pump 2 Report

Report Summary



Optimization Rating

Optimization Rating

$78,987

$62,760.33

Annual Savings Potential

Annual Savings Potential

Report Details

	Existing	Optimal	Pump 2 Flow Rate Increase
Pump efficiency (%)	11.29	54.22	15.81
Motor rated power (hp)	200.00	6,000.00	200.00
Motor shaft power (hp)	309.59	64.48	309.59
Pump shaft power (hp)	309.59	64.48	309.59
Motor efficiency (%)	92.38	47.71	92.38
Motor power factor (%)	88.36	07.17	88.36
Motor current (amps)	355.11	1,744.44	355.11
Motor power (hp)	250.00	99.72	250.00
Annual Energy (MWh)	**2,190.00**	**873.54**	**2,190.00**
Annual Cost	**131,400.00**	**52,412.56**	**131,400.00**

Input Data

	Baseline	Pump 2 Flow Rate Increase
PUMP / FLUID		
Pump Type	End Suction Slurry	End Suction Slurry
Pump RPM	1,780.00	1,780.00
Drive	Direct Drive	Direct Drive
Kinematic Viscosity (cST)	01.00	01.00
Specific Gravity	01.00	01.00

	Baseline	Pump 2 Flow Rate Increase
Stages	01.00	01.00
Fixed specifc speed?	Yes	Yes
MOTOR		
Line Frequency	60 Hz Hz	60 Hz
Horse Power	200.00 hp	200.00
Motor (RPM)	1,780.00	1,780.00
Efficiency Class	Energy Efficient	Energy Efficient
Voltage	460.00	460.00
Full-Load Amps	225.80	225.80
Size Margin	90.00	90.00
FIELD DATA		
Operating Fraction	01.00	01.00
Cost (kW/hr)	00.06	00.06
Flow Rate (gpm)	500.00	700.00
Head (ft)	277.00	277.00
Load Estimated Method	Power	Power
Motor Power (kW)	250.00	250.00
Voltage	460.00	460.00