

Heat Pump Case Study

"Too good to be true"

That was the reaction of a leading global Trucks Manufacturer, when Aspiration Energy told that replacement of Electric Heaters with Heat Pump will reduce more than 50% of energy consumption for one of its Industrial processes.

The Truck Manufacturer was skeptical about Heat Pumps and challenged Aspiration Energy to prove its claims about the energy savings. Aspiration Energy accepted the challenge, installed a Heat Pump at its own cost, and proved how Heat Pumps not only reduce energy consumption for the process by 80,000 kWh/year(53%), but also reduce the carbon foot print by 70,000 kg CO₂/year.

And the story has a happy ending.

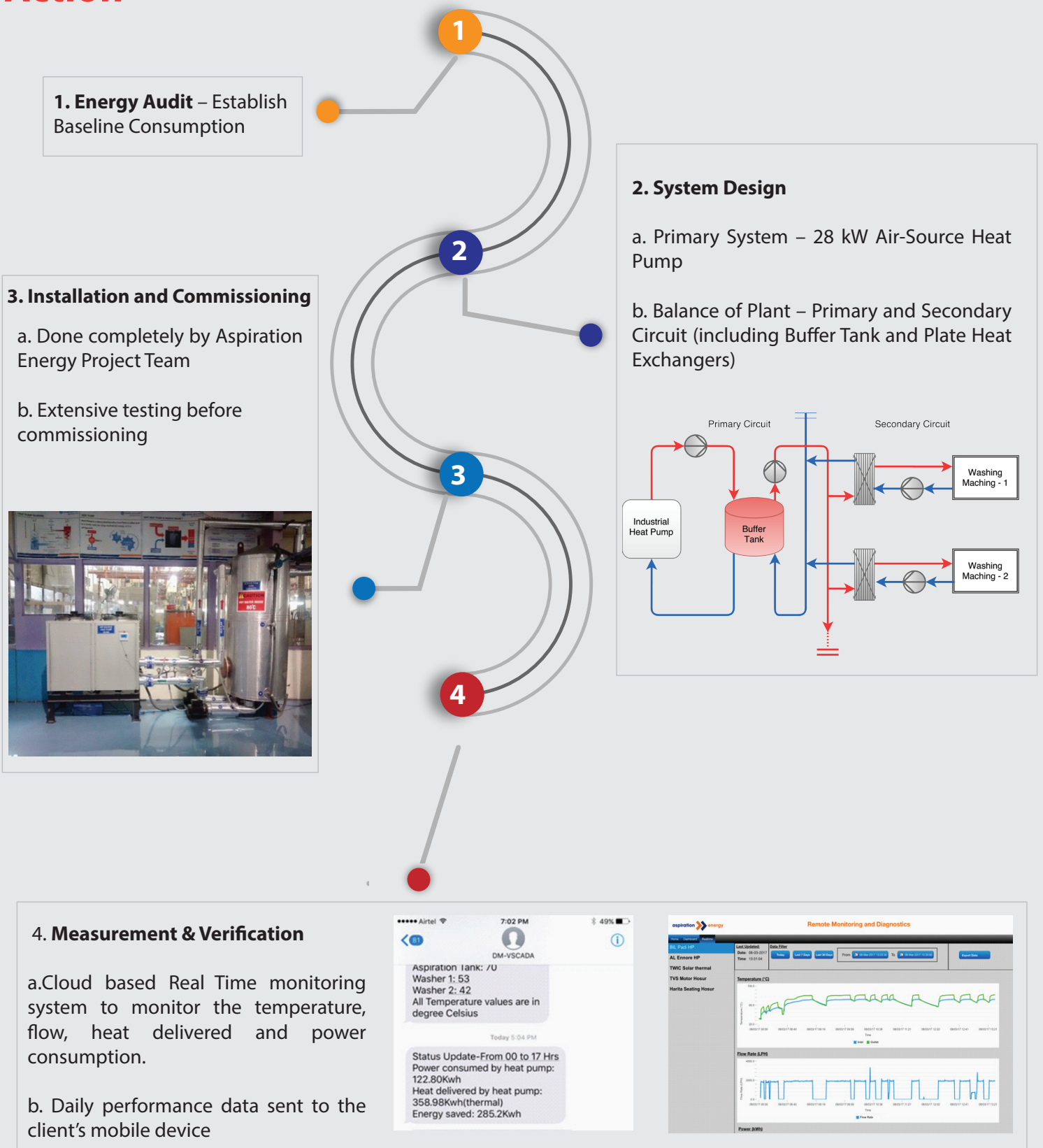
The Trucks Manufacturer has ordered more Heat Pumps for installation in some of its other sites.

How did Aspiration Energy reduce electricity consumption and Carbon footprint? Read On...

Pre - Heat Pump Situation

Industrial process	Automotive Components Washing machine
Use of process Heat	Cleaning of gear casings and its components before assembling
End use	Cleaning of oil, dust and the burs from the components
Process Temperature	50 – 55 °C
Mass flow of the components	80 components/sets per shift(8 hrs)

Action



The entire process took less than 4 months from Start to Finish.

Results

Description	Before	After
Source of Energy	Electric Heater	Air-Source Heat Pump
Number of Heating Elements	12	1
Capacity of Each Heating Element (kW)	6	28
Total Rated Capacity (kW)	72	28
Electricity Consumption (kWh/year)	1,52,000	72,000
CO ₂ Emission (kg/year)	1,72,000	82,000

Total Savings per Year- Rs. 5,60,000

Payback period - 23 Months

*Heat pumps have the potential to significantly reduce heating energy costs for most industries, and with very attractive pay back periods.
Contact us for more - info@aspirationenergy.com*