

# Energy Case Study Summary

## Efficiency Gain on Split Air System at City Library



The City of Mountain View is located in the San Francisco Bay Area and has a population of about 75,000 persons. The City has an aggressive goal to reduce its energy consumption.

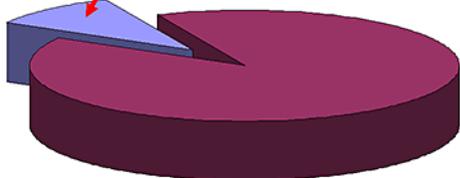
Realizing that the electricity used for air conditioning represents a large portion of its total electricity usage, the City engaged Power Knot to help reduce the consumption of energy.

The City asked Power Knot to monitor and treat an air conditioning system that performed badly in hot weather. This is a system that cools the power room at the City library.

Power Knot monitored the system for a month before and after treatment and showed that by treating the system with its Synthetic Refrigerant Additive that it had increased the energy efficiency of the system by over 20%.



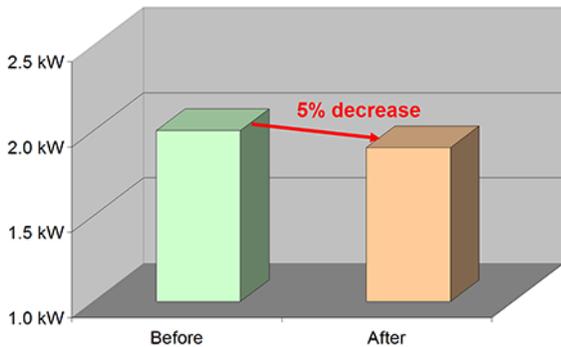
**We promise 10% increase in efficiency on chillers and air conditioners**



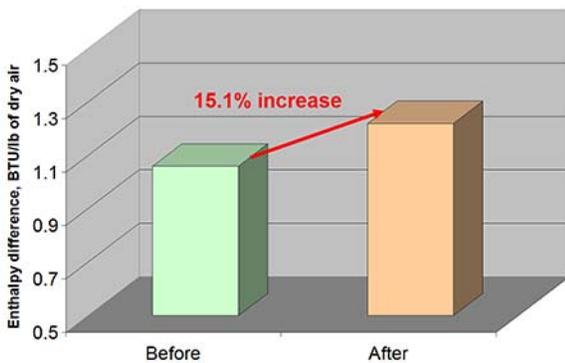
This a/c system was made by Compu-Aire:



After treatment, we measured an average reduction in power of 5%:



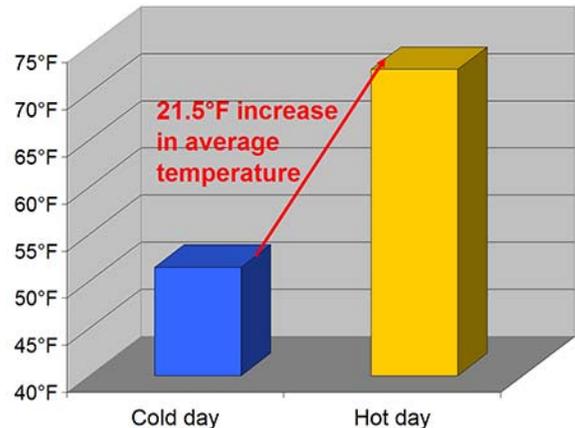
After treatment, the room was much cooler. The air conditioning system was doing more work than before treatment. The increase in work being done was over 15% as measured by the enthalpy:



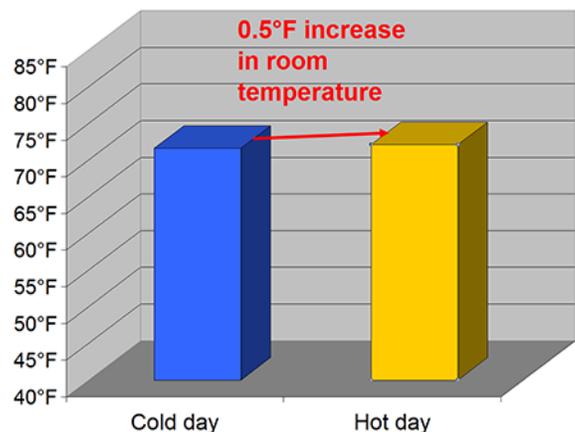
**The net effect is an improvement in energy efficiency of over 20% and the ability to keep the room cool even in hot weather.**

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Of interest to the City was what happens to the room temperature after we had treated it. We analyzed the room temperature on the coldest and hottest days after we treated the system:



The system held the temperature in the room, with just a very minor change in the room temperature:



This is an example of the benefits of the Synthetic Refrigerant Additive supplied and supported by Power Knot. For more information on the Synthetic Refrigerant Additive, please contact your local sales representative or send an e-mail to Power Knot at [powerknot@powerknot.com](mailto:powerknot@powerknot.com).

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