

Recommendation for Building Performance Management Services (BPM)

What is BPM? A facility oversight service that monitors utility spend in real time with a specialized analytical tool called “Utilivisor.” A dedicated team reviews information daily and makes recommendations to reduce utility costs.

How does it work? Utility meter data is connected through the on-site automation system and pushed to an off-site server where the Utilivisor system reads it. The information is then produced on a custom web site where the analytics are used to spot opportunities for efficiency improvements.

What local customers use this service? UT Arlington, Texas Women’s University, Texas State University, Texas Tech University, Tri-Quint Semiconductor, Army Air Force Exchange and the City Place, Crescent and Fountain Place Office Buildings.

What would this service do for Denton ISD? Reduce electric, gas and water utility waste which is currently very hard to see, or being caught in the arrears. We believe this is significant and one of the few remaining conservation measures untapped by the district.

Why should Denton ISD consider this? With 44 campuses, approximately 215 utility meters and over 6,000 individual HVAC systems we know that equipment is running extra hours, lights are left on and leaks occur increasing causing unproductive utility costs. As the district continues to grow, policing the control system software programs and auditing the utility bills has become impractical because of the magnitude of the task and the 30-45 day lag in time.

What do we think this will save? Based on what we have seen in other facilities, we are estimating \$200,000 per year. Our recommendation is to proceed with a pilot project to confirm our estimate.

What is the cost and benefit of this service to Denton ISD? Our recommendation is to proceed with a pilot project encompassing the following 10 campuses: Guyer HS, Ryan HS, Meyers MS, Navo MS, Strckland MS, Borman ES, Cross Oaks ES, Gonzalez ES, Hodge ES & Rivera ES. TDIndustries is offering to spread out the initial cost of the pilot and offer Denton ISD a no-risk guaranteed-savings agreement on the annual fee. Please see the attached pro-formas for both a standard capital-based approach and a guaranteed-savings based approach.

Project Pro-Forma

Building Performance Management (Pilot)

Initial Project Costs:		Financial Assumptions	
Meters (4ea)	\$52,000		
Data Push	\$10,000	Energy escalation rate {annual}	2.00%
Develop Analytics & Web Site	\$18,000	O&M Cost escalation rate {annual}	3.00%
		SPB	2.32
Total Project	\$80,000		
Incentive	\$0		
Total Capital Required	\$80,000	Capital paid upfront	

Pro-forma	Initial Values	Year									
		1	2	3	4	5	6	7	8	9	10
Annual energy cost savings	\$46,800	\$47,736	\$48,691	\$49,665	\$50,658	\$51,671	\$52,704	\$53,758	\$54,834	\$55,930	\$57,049
Added O&M Cost		(\$13,320)	(\$13,720)	(\$14,131)	(\$14,555)	(\$14,992)	(\$15,442)	(\$15,905)	(\$16,382)	(\$16,873)	(\$17,380)
Total Project Savings		\$34,416	\$34,971	\$35,533	\$36,103	\$36,679	\$37,263	\$37,854	\$38,452	\$39,057	\$39,669
Annual Cash Flow	(\$80,000)	\$34,416	\$34,971	\$35,533	\$36,103	\$36,679	\$37,263	\$37,854	\$38,452	\$39,057	\$39,669
Cumulative Cash Flow	(\$80,000)	(\$45,584)	(\$10,613)	\$24,920	\$61,023	\$97,702	\$134,965	\$172,819	\$211,271	\$250,328	\$289,997

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3 Year Payout of Installation		(\$26,667)	(\$26,667)	(\$26,667)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Annual Cash Flow		\$7,749	\$8,304	\$8,867	\$36,103	\$36,679	\$37,263	\$37,854	\$38,452	\$39,057	\$39,669
Cumulative Cash Flow		\$7,749	\$16,054	\$24,920	\$61,023	\$97,702	\$134,965	\$172,819	\$211,271	\$250,328	\$289,997