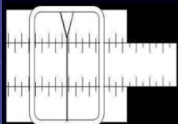


Saving Energy in Churches



WADE CROW ENGINEERING
Spartanburg, South Carolina

RULES OF ENGAGEMENT

1. IF IT USES ENERGY.....CUT IT "OFF" OR CUT IT DOWN.
(EXCEPT FOR SOME HEAT PUMPS)
2. EQUIPMENT NOT USED MUCH.....WON'T SAVE MUCH.
3. DON'T BELIEVE A MARKETING PITCH.....VERIFY.
4. A/C SEER/EER RATING IS DIRECTLY PROPORTIONAL TO ENERGY USE. USE THIS TO EVALUATE COST FOR HIGH EFFICIENT EQUIPMENT.
5. IF YOU HAVE TO REPLACE EQUIPMENT ANYWAY, DON'T LOOK AT FULL PAYBACK, JUST DIFFERENCE IN EQUIPMENT EFFICIENCY.
6. COMPLEX CONTROL SYSTEM WILL NOT BE EFFECTIVE, UNLESS YOU HAVE SOMEONE WHO IS WILLING TO LEARN TO UTILIZE THEM.
7. HIGH TECH A/C EQUIPMENT, GENERALLY HAS A HIGHER SERVICE COST.

WADE'S TOP 10 LIST

1. FLUORESCENT LIGHTING-vs-INCANDESCENT
2. OCCUPANCY SENSORS FOR LIGHTING
3. TIMER SWITCHES FOR FANS, LIGHTING,
OVERCALLS
4. VARIABLE SPEED MOTORS: ENERGY varies SPEED³
5. ATTIC/ROOF INSULATION: INSULATE AT ROOF-NOT
CEILING
6. WEATHER STRIPPING
7. PROGRAMMABLE THERMOSTATS
8. KEEP EXHAUSTED AIR TO A MINIMUM: IT'S NOT
ABOUT THE FAN ENERGY
9. RECYCLE
10. SLOW DOWN

FREQUENTLY ASKED QUESTION

WHAT IS THE PAY BACK?

$$\text{SIMPLE PAYBACK} = \frac{\text{PROJECT COST}}{\text{ANNUAL ENERGY SAVINGS}}$$

SOME HISTORY:

- 1) OCCUPANCY SENSORS WITH LIGHTS: 4 MONTHS
(CLASS ROOM)
- 2) FLUORESCENT-VS-METAL HALIDE LIGHTS: 1.6 YRS.
(SCHOOL-GYM)
- 3) VARIABLE SPEED MOTORS: 2.6 YRS. (15 HP)
- 4) REPLACE LARGE WATER CHILLER: 16 YRS.
- 5) REPLACE OLD BOILERS WITH HIGH EFFICIENCY: 24 YRS.
- 6) REPLACE ATTIC INSULATION WITH FOAM: ?
(TOO MANY VARIABLES)