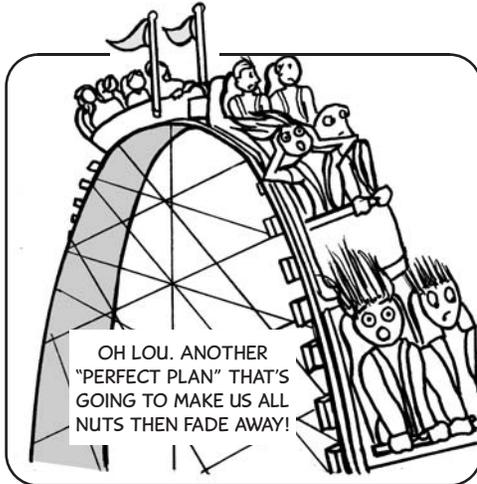
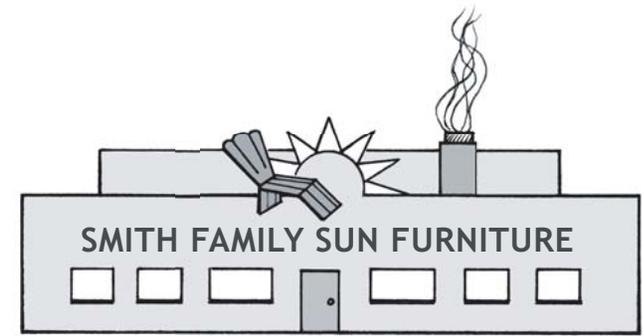


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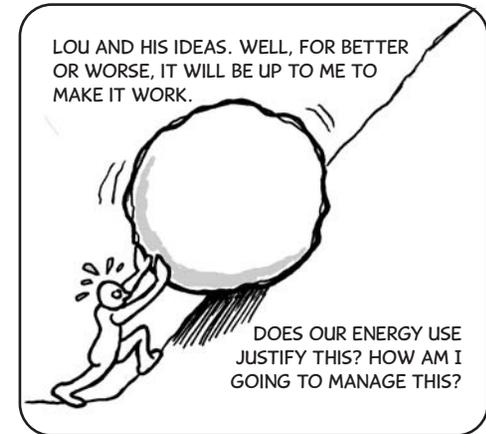
INTRODUCTION TO CONTINUOUS ENERGY IMPROVEMENT

Lou and Mary Smith built Smith Family Sun Furniture from a garage operation to a company employing over eighty people. They're proud of their contribution to their community. As they realize their dream of early retirement, their thoughts are about their legacy. "Who will take over?" "How can we preserve our life's work to thrive well into the future without us?" They want Smith Family Sun Furniture to be a community anchor for another 30 years.



I'M CUTTING MY COSTS AND AM GOING TO LOCK IN THOSE SAVINGS ONE STEP AT A TIME. SFSF WON'T BE CAUGHT OFF GUARD NOW OR IN THE FUTURE.

I'M GOIN' OUT WITH A **BANG**, BABY!



2

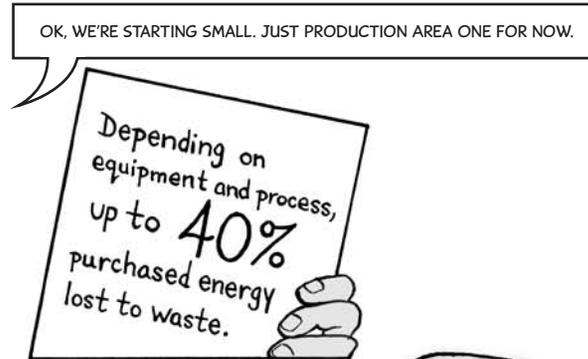
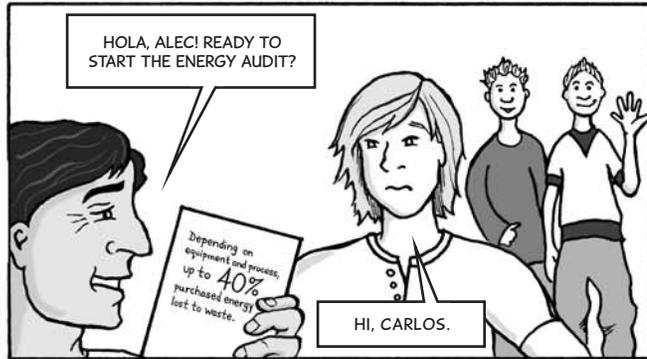
CONDUCTING AN ENERGY AUDIT

Knowledge is power.

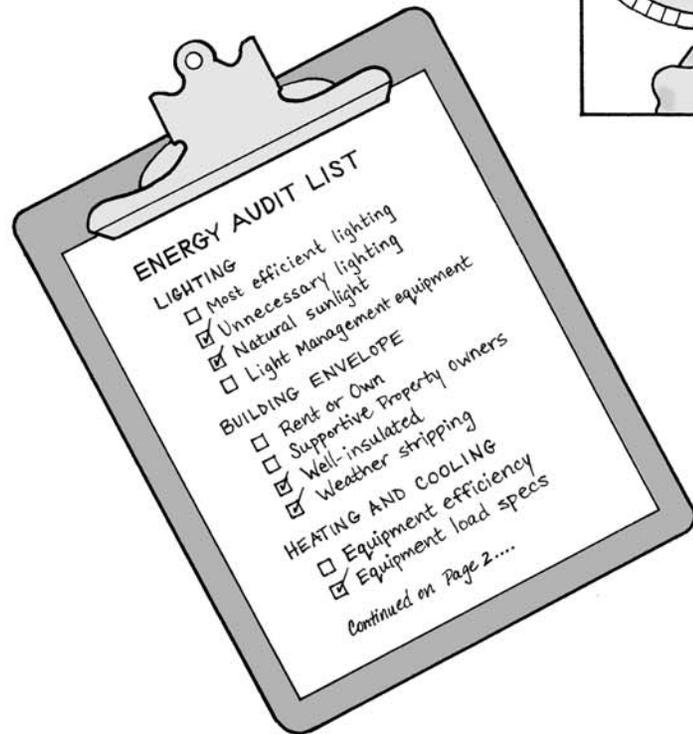
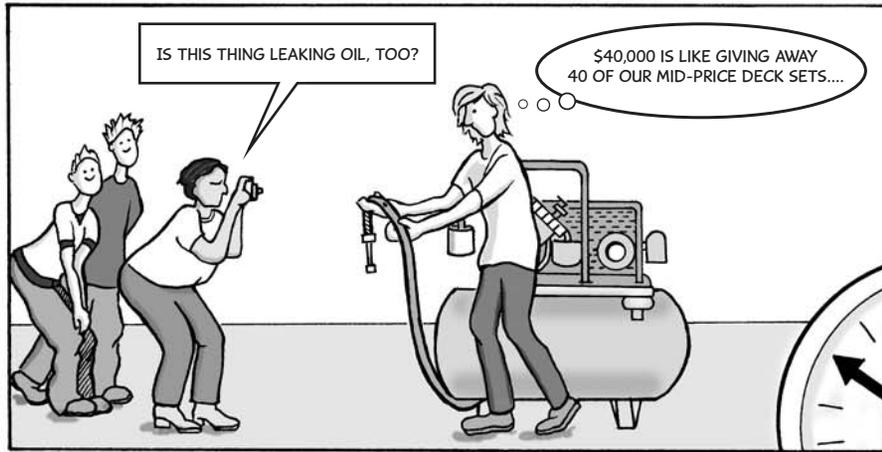


AUDIT DAY ARRIVES AT THE SHOP...

ALEC, THE OWNERS' NEPHEW, VENTS.



CONDUCTING AN ENERGY AUDIT *continued*



THE STORY CONTINUES....

* Based on 100 PSI, 0.18 kW/CFM and \$0.05/kWh



SIMPLE LIFE CYCLE COST ANALYSIS

“Total Cost” puts energy efficiency on equal footing. Mary’s made it clear that the company has limited capital for upfront investments and won’t give the go-ahead unless there’s a strong case for good, long-term benefits. Energy efficiency is going head-to-head with other key investments.



SIMPLE LIFE CYCLE COST
The sum of any new capital costs and equipment operating costs during the total lifespan it can be expected to operate.

CAPITAL COSTS (Initial Cost - Incentives/Rebates)	+	LIFESPAN OPERATIONAL COSTS (#Years in Lifespan x Energy Cost/Year)
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PROs CDNs

WE USE ROI FOR BIGGER INVESTMENTS, LOANS, ETC. SIMPLE PAYBACK IS USUALLY OK FOR SMALLER STUFF. . .

SIMPLE LIFE CYCLE COST ANALYSIS *continued*



THE STORY CONTINUES....

4

ENERGY USE BASELINE and KPIs

Even smaller companies gauge their performance against some kind of norm for production or financials. Energy is similar. By establishing an energy baseline, you put a stake in the ground at what you consider to be "normal" so you can gauge progress to energy reduction and savings goals.

AT THE ENERGY TEAM MEETING....

Panel 1: A man points to a whiteboard with a diagram. The diagram shows 'ENERGY' at the top, branching into 'Production' (represented by a chair, table, and desk) and 'Non-Production' (represented by a person sitting at a desk). Below the whiteboard, a woman asks: "DUDE, HOW CAN WE NOT SAVE ENERGY AND MONEY? THE AUDIT POINTED OUT TONS OF STUFF TO DO. WHAT ARE WE WAITING FOR?!" The man replies: "WE'RE TREATING ENERGY LIKE A PRODUCTION RAW MATERIAL. WE NEED TO SEPARATE PRODUCTION ENERGY FROM NON-PRODUCTION ENERGY."

Panel 2: A woman asks: "YOU MEAN LIKE ADMINISTRATIVE OVERHEAD, BUT FOR ENERGY? SEPARATE THAT OUT?" A man replies: "YEAH, SORT OF. AND WE'LL TRACK IT MONTHLY; KEEP A RECORD."

Panel 3: A woman asks: "IS THAT NECESSARY? AS LONG AS WE KEEP WORKING AT IT, WE'LL PROBABLY DO FINE." A man replies: "BUT HOW FINE?!" Another man replies: "IF WE PUT SAVINGS INTO OPERATIONS, LOU WON'T CARE." A woman replies: "I CARE. THE TIME AND MONEY PUT INTO TO THIS HAVE TO BE WORTH IT. AND WHAT ABOUT REGULATIONS? GREEN THIS, GREEN THAT...!"

Panel 4: A woman says: "WHOOAAA. SLOW DOWN. BEING AHEAD ON ENERGY-ENVIRONMENT- WHATEVER- DOESN'T HURT: ENJOYING NATURE IS OUR BUSINESS." Another woman replies: "AUNT MARY, CARLOS WANTS ACCURACY FROM THE START. THEN WE CAN SHOW REAL PROGRESS TO LOU, STAFF, OR ANY CUSTOMER WHO WANTS TO KNOW."

Panel 5: A man says: "WE'VE GATHERED THE DATA, SO LET'S USE IT. WE'LL ISOLATE ENERGY PER UNIT PRODUCED AND GRAPH IT EVERY MONTH..."

Panel 6: A woman looks at a document titled "ENERGY TRACKING" and says: "ENERGY PER WHATEVER. SOUNDS LIKE A PAPERWORK PAIN IN THE..."

Panel 7: A woman says: "NOT REALLY. IT'S LIKE MILES PER GALLON. LIKE WHEN GRANDMA VISITED FOR THE WINTER AND USED MOM'S CAR, REMEMBER?"

ENERGY USE BASELINE and KPIs *continued*



5

MONITORING PROGRESS

Regularly capturing the selected data at the chosen interval and comparing it to the baseline is key to success. Make it a habit and you'll always have what you need to improve.



LAST MONTH....

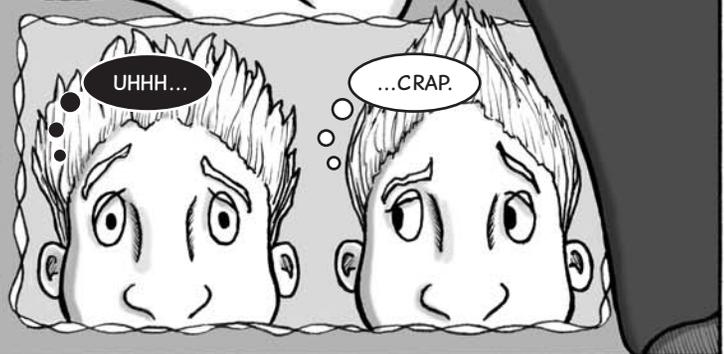
WHOA. WE WERE DOING GREAT. WHY THE SPIKE IN ENERGY?... PRODUCTION VOLUME SEEMS A LITTLE LOW....

KPI TRACKING-- Therms/Unit

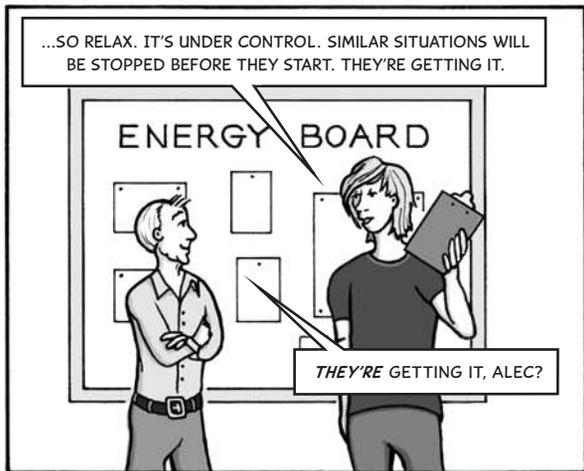
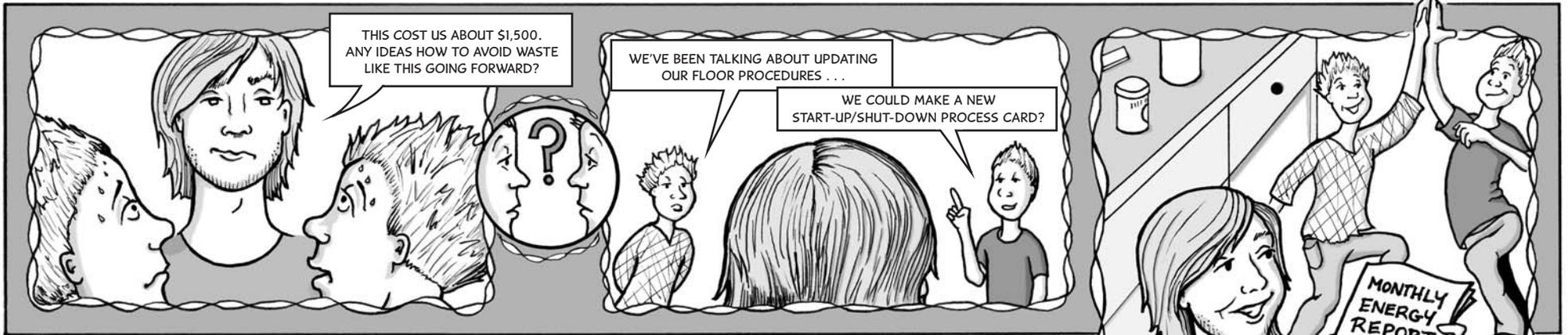
Month	Therms/Unit
JAN	4.5
FEB	4.5
MAR	4.5
APRIL	4.5
MAY	4.5
JUNE	7.5
JULY	4.5
AUG	4.5
SEPT	4.5
OCT	4.5
NOV	4.5
DEC	4.5
JAN	7.5

THERMS PER UNIT IS HIGH, BUT OUR ONLY SIGNIFICANT ENERGY USER IS THE DRYING OVEN.

TIME TO TRACK DOWN JOE AND SEE WHAT'S UP.



MONITORING PROGRESS *continued*

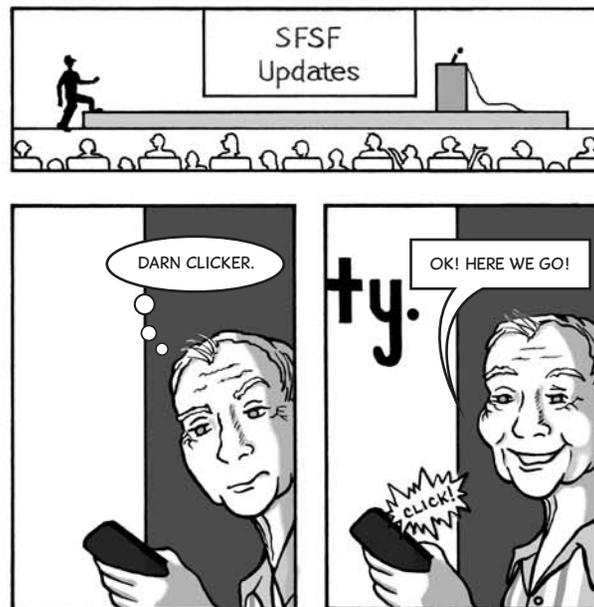


THE STORY CONTINUES....

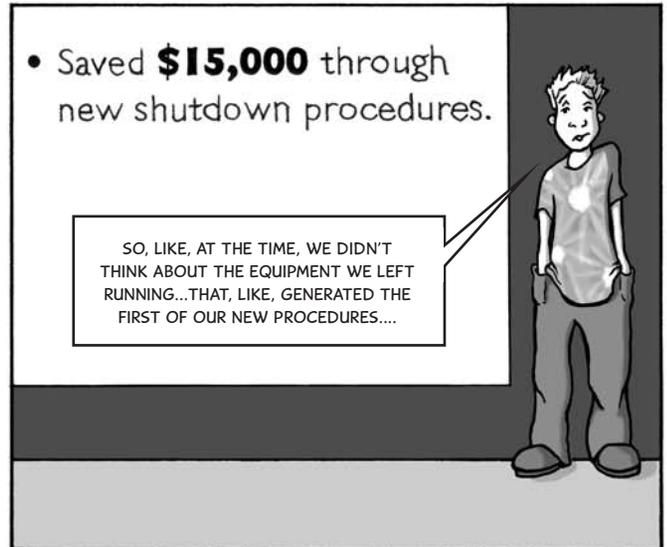


AWARENESS (TRAINING)

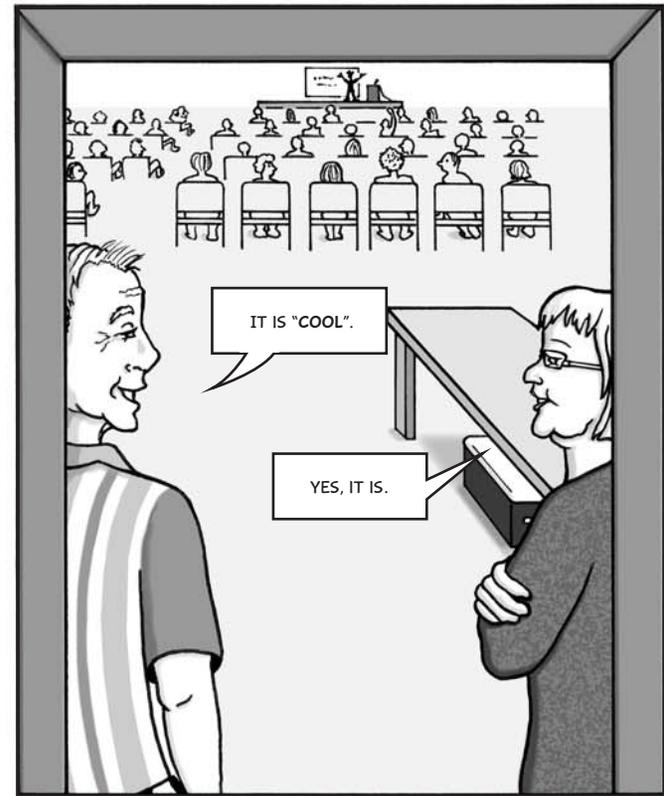
Management systems like Continuous Energy Improvement *stick*. They embed best practices *throughout* an organization.



JOE SHARES HIS ENERGY NEWS...



AWARENESS (TRAINING) continued

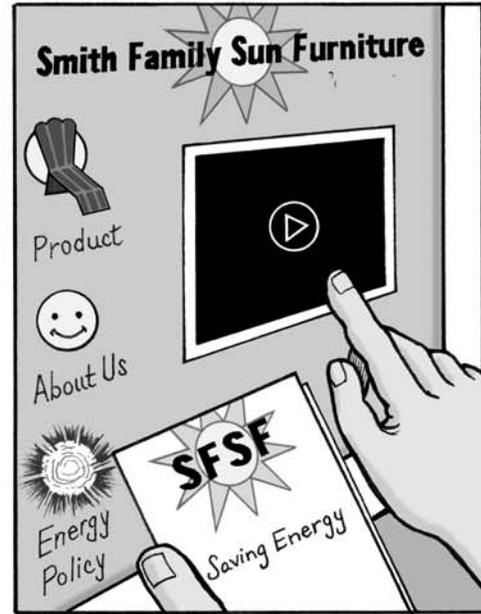


THE STORY CONTINUES....

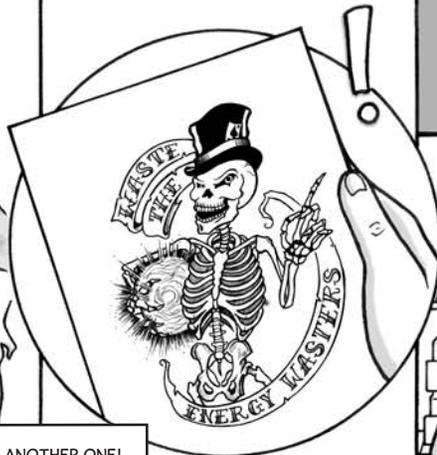


MISSION ACCOMPLISHED

Continuous Energy Improvement is a framework for ongoing progress.



MISSION ACCOMPLISHED *continued*



THE END