

# Arctic Wire Rope and Supply

The Good, the Bad and the Noisy



**21,000 sq ft with 25' ceilings**





**Sewing Loft**



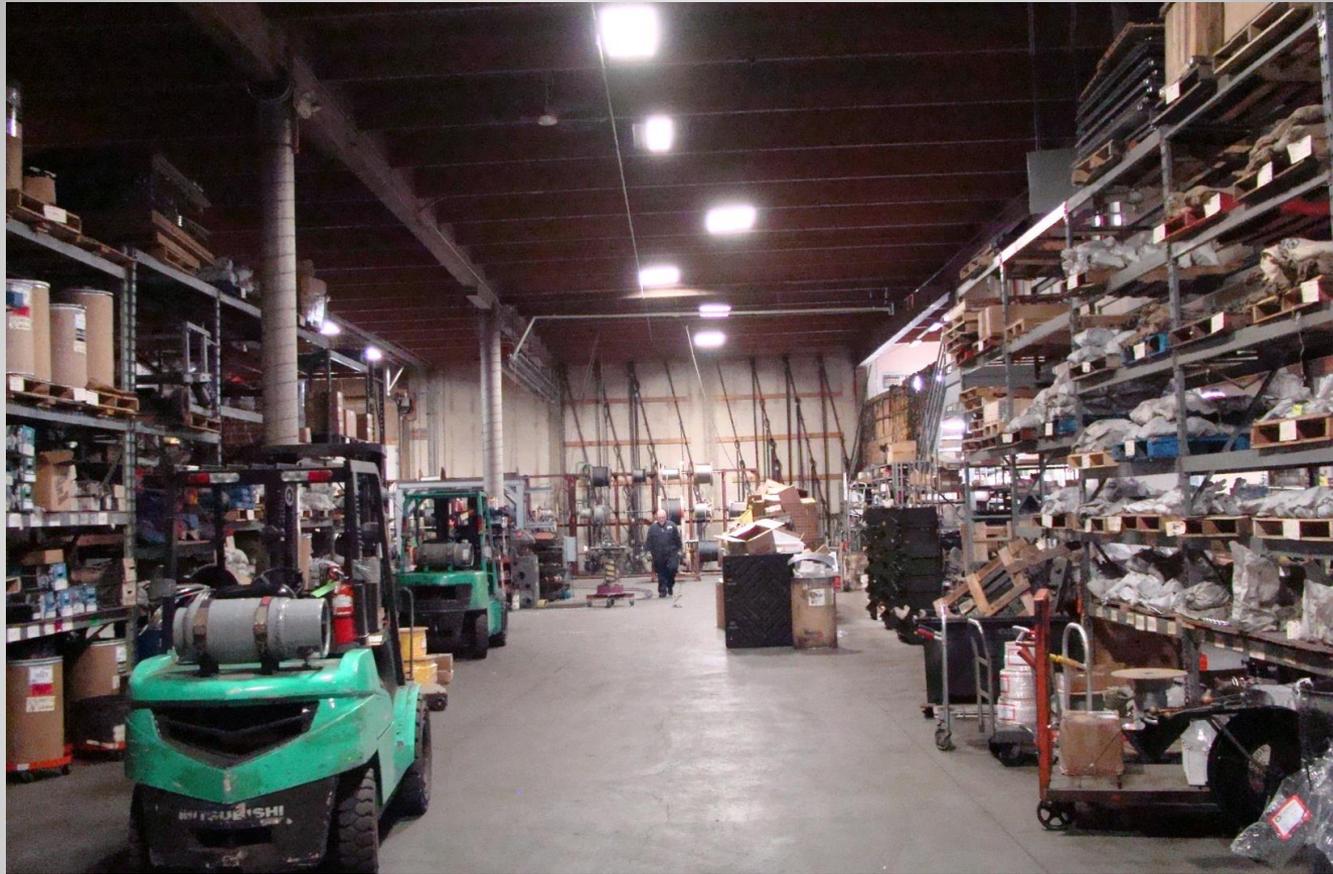
**Which lights use half the energy?**

**Arctic Wire Rope & Supply**











**16' x 16' door with air curtain**



**Infrared Radiant**



**93% efficient commercial gas heater, first one in Alaska**



**Complex exchange and  
condensing**

# Arctic Wire Rope and Supply energy efficiency actions and results

July 2007-Oct 2009

July 2007

**Warehouse** -changed 26 ea 400watt HID metal halide fixtures (480 watts ea)

to 22 ea 4bulb T5 HO fixtures (225 watts) & 4 ea 6 bulb fixture (330 watts)

**Office & sewing loft**- changed 250 T12 bulbs (40 watts) to 130 T8 bulbs (34 watts)

**Total lighting**- Kwh went from 23,000 to 9600 with better quality

Approx 3.5 yr payback or 22% ROI (1 year w/ 2% productivity increase)

Oct 2007

Installed 16' x 16' Berner air curtain with 2 x 7.5 HP motors

Approx 5 yr payback

15% ROI

Changed out 5 ea 4' x 2' warehouse windows from single pane to double pane and sealed. Considered on going maintenance

Sept 2009

Removed leaky, unused 12' x 12' sliding door and walled up with insulation

Considered on going maintenance

Oct 2009

**Warehouse** -Replace two antiquated 150,000 Btu gas heaters at 70% Eff. With one new Modine 93% Eff direct fire, condensing gas heater and one 170,000 Btu infrared radiant x 70' unit. \$3000 premium over replacing with same technology, one year payback (100% ROI)

Installed Intellidyne HW+ Hydronic boiler device to control cycling-not working boiler may need replaced

## CEA electric bill

10/06-09/07 84,667 Kwh used

10/07-09/08 60,419 kwh used

10/08-09/09 57,875 Kwh used

32% drop on Kwh usage

## Enstar gas bill-7 month heating period Nov 1 – April 31

11/06-4/07 8751ccf Avg temp 23F

11/07-4/08 7982ccf Avg temp 25.7F

11/08-4/09 7758ccf Avg temp 22.3F

11/09-4/10 4941ccf Avg temp 27F

43% drop since 06-07 39% drop since 07-08

## Dow Jones Industrial average

<b>1 Year</b>	<b>3Yr Avg</b>	<b>5Yr Avg</b>	<b>10Yr Avg</b>
29.4%	-3.90%	3.65%	2.74%

My average return for the \$30,000 invested above was 27% per year and over the same three year period will be 104% (this assumes that gas prices will not go down)

- Running out of natural gas in Cook Inlet
- Gas generates 90% of our Electricity
- Lose 70% of gas through production & transmission of electricity
- 2.5 cents/Kw to generate new power w/EE
- Commercial EE is decentralized
- It is self funding and market driven
- Only two ways to improve profit
- Education leads to a point of reference
- ROI vs LEED

**Self Interest is king**