

Robert Bensin Bering Straits Development Company

ENERGY EFFICIENCY BARRIERS

BREVIK MISSION HOUSING PROJECT

- DESIGN BUILD FIVE NEW ENERGY EFFICIENT HOUSES



ACQUISITION AND TRANSPORTATION

- ❖ Notice of Intent to award on April 15th 2015
- ❖ Seattle Barge Deadline June 8th
- ❖ Anchorage Barge Deadline June 18th
- ❖ Landing Craft to Brevig Deadline July 3rd
- ❖ Brevig Mission Backhaul Deadline September 18th
- ❖ This is how short construction season windows are.

AND SO IT BEGINS



LOADING THE LANDING CRAFT 7/3



OFF LOADING IN BREVIG MISSION 7/5



IN WALKS MURPHY'S LAW



YES THIS IS THE ONLY EXCAVATOR IN BREVIG



THE NEW HOUSE PADS ON A GOOD DAY



THE MORE TYPICAL WEATHER



YUP AND THAT'S THE HAUL ROAD



A WEEKS WORK AND EXPENSE FOR A NEW ROAD



WINTER SET IN JUST AS CIVIL ENDED



REGIONAL ENERGY PLANNING

- ❖ Funded by the State of Alaska through AEA
- ❖ BSDC took over during phase II
- ❖ Completed phase III in November 2015
- ❖ Currently developing a Regional Energy Committee
- ❖ Many plans have developed into projects

OUTREACH IN WHITE MOUNTAIN



KIDS AND ENERGY



THE ENERGY AVENGERS



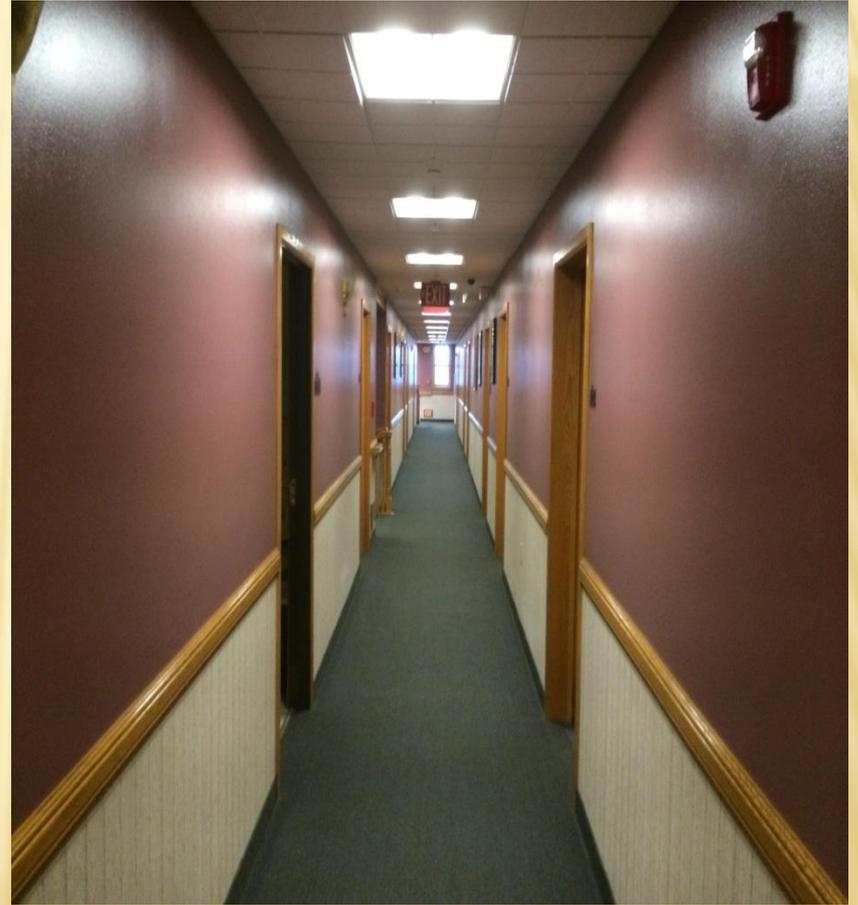
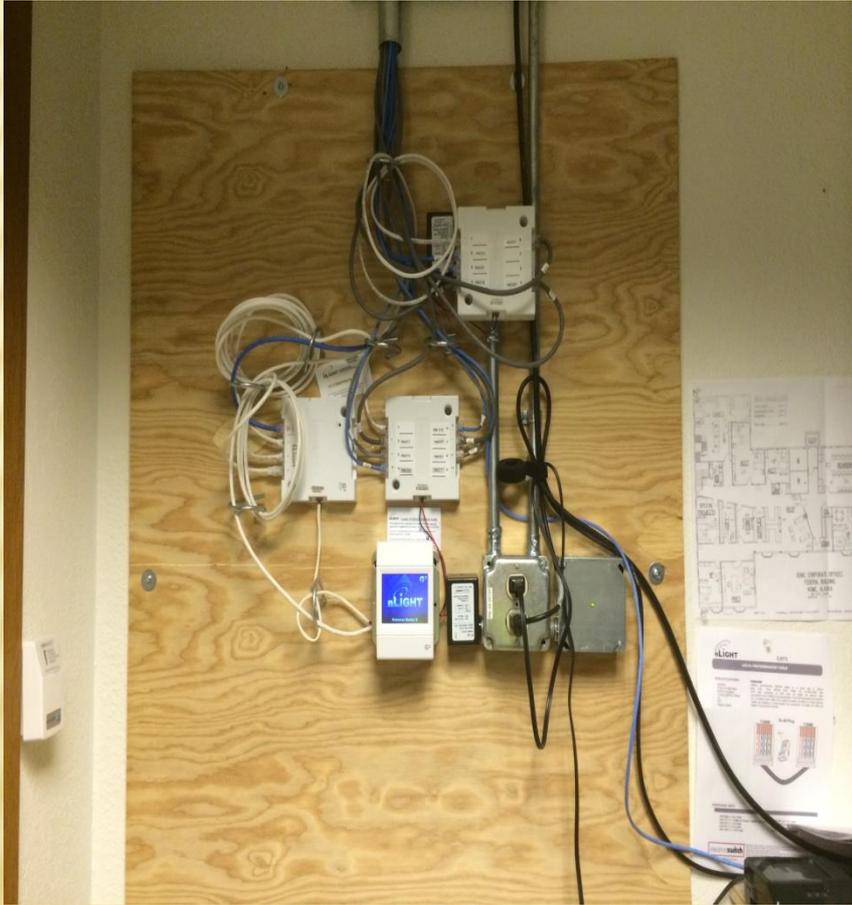
AURORA INN LIGHTING PROJECT

- ❖ One for one replacement from 97 watt FLO to 45 watt LED
- ❖ \$1,500.00 monthly savings
- ❖ \$18,000.00 Annual savings
- ❖ 2 year Return on Investment (ROI)

We Didn't Stop There!

-
- ❖ Installed Occupancy Sensors
 - ❖ Daylight Harvesting
 - ❖ Web Based Software for Scheduling

Overall system savings unknown at this time



BSNC LIGHTING PROJECT

- ❖ Direct replacement one for one in 2008
- ❖ 145 watt T-12 Fluorescent Fixtures
- ❖ Replaced with 54 watt T-5 FLO
- ❖ Ballast is 50% Stepping
- ❖ Never used at 100%
- ❖ \$8,500.00 - \$9,000.00 Annual Savings
- ❖ Five year ROI

AURORA INN WATER CONSERVATION



-
- ❖ Old Showerheads Used 2.5/4 GPM
 - ❖ New Showerheads Use 1.5 GPM
 - ❖ Total Savings of Water Used – BTU's Used to Temper Water – Down the Drain Charges
\$5,000.00 Average Annually
.27944 Years ROI
Very Environmentally Friendly

NSEDC COMMUNITY ENERGY FUND

- ❖ Grant Funding To Replace Meter Base's with Stainless Steel
- ❖ Started Three Years Ago
- ❖ Gambell, Savoonga, Wales and Elim
- ❖ Wales and Elim added TED Meters to Their Grant Request

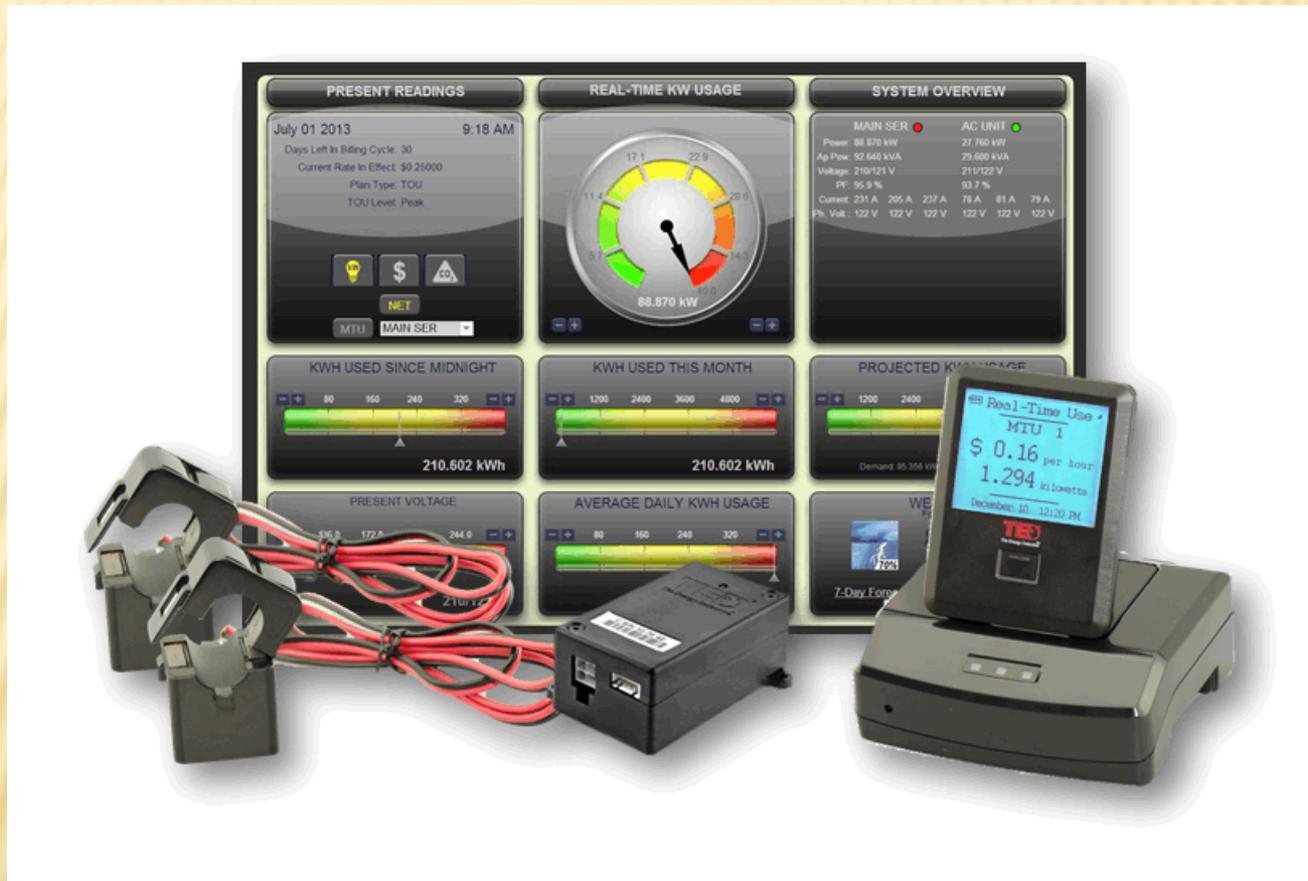
GAMBELL METER BASE REPLACEMENT



WALES METER BASE REPLACEMENT



THE ENERGY DETECTIVE



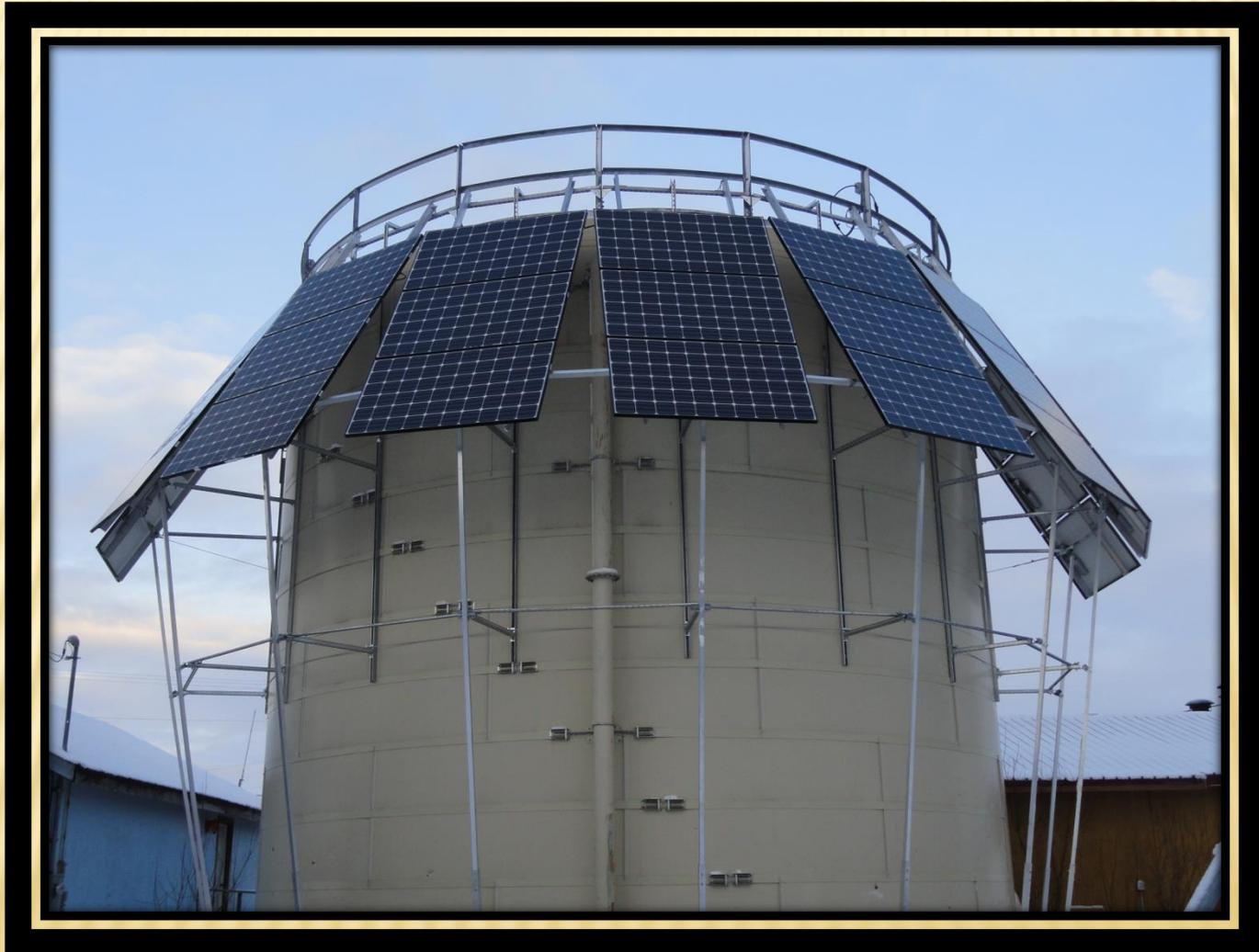
SOLAR PV PROJECTS

- ❖ Design build to offset the operating cost for WTP's
- ❖ Behind the meter and oriented to maximize production without returning energy to the grid
- ❖ Additional benefits of offsetting PCE for use at other public facilities
- ❖ Cost per KW is already high so how to reduce cost?

DEERING



KOBUK



SHUNGNAK



NOORVIK



NOATAK



KOTZEBUE



BUCKLAND



SELAWIK





KIANA





Deering WP



Status



NORM

Power Right Now

--

kW

Energy Generation

TODAY

0.0
kWh

LIFETIME

15.8
MWh

53
°F

Rain

Yahoo! Weather
near Deering, AK United States

Atmosphere

Humidity: 86%

Pressure: 2.47'

Visibility: 8.00 mi

Wind

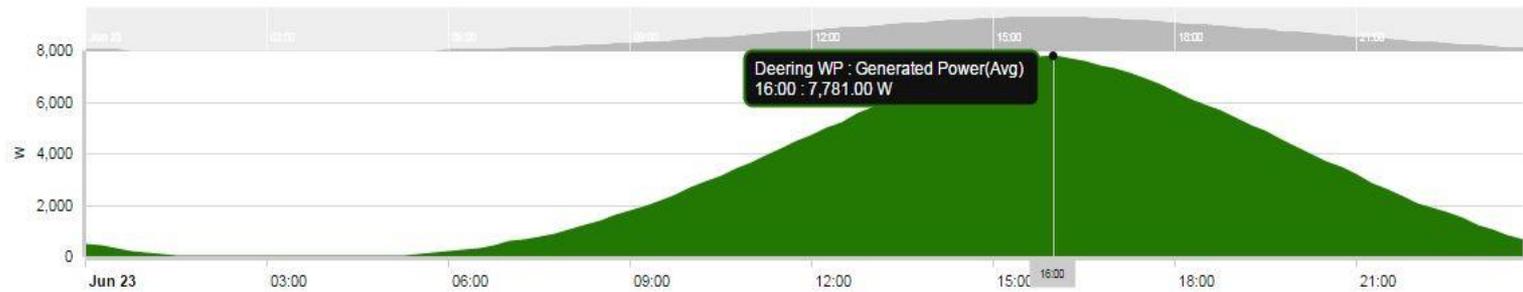
Speed: 21.00 MPH

Direction: 160

Power

1D 7D 30D 12M WTD MTD YTD

Jun 23, 2015 - Jun 23, 2015





Selawik WTP

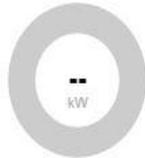


Status



NORM

Power Right Now



Energy Generation

TODAY
0.0
kWh

LIFETIME
7.4
MWh

Yahoo! Weather
near Selawik Airport, AK United States

52 °F

Cloudy

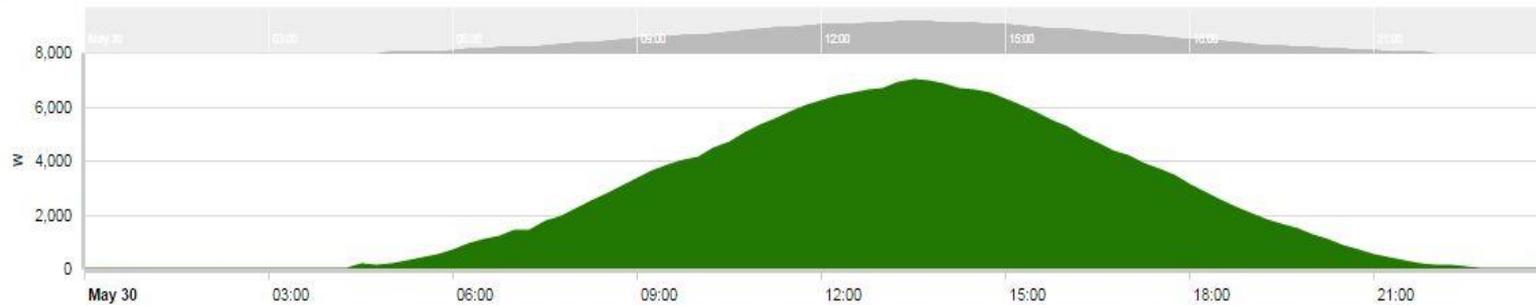
Atmosphere
Humidity: 100%
Pressure: 2.48 "
Visibility: 10.00 mi

Wind
Speed: 7.00 MPH
Direction: 140

Power

1D 7D 30D 12M WTD MTD YTD

May 30, 2015 - May 30, 2015



THANK YOU



