



November 19<sup>th</sup> , 2012

**Re: Energy Waste, Nuclear Energy, Smart Meters & Severe Weather**

To whom it may concern:

The following file is to show you the reality of energy use and what we missed by being blind to the temperatures we design for. The UN is worried about a few degree temperatures rise, we are going to show you development close to boiling temperature.

Building Code regional climatic data is provided by Environment Canada so we can build sustainably in regions of the country. Unfortunately buildings across the country and world are signed off as compliant with building codes.

The world's energy grids are challenged so we use alternatives, build nuclear power plants, install smart meters to reduce stress on the electrical grid and save energy. This file will show you gigawatts of power waste per hour and the smart grid is not addressing it but they are billing you peak hours for the waste.

Solar exposed buildings are generating extreme heat that changes weather and nuclear energy isn't going to address it but will endanger areas with the severe weather coming.

The domino effect into health is demonstrated in the file as well. Countries are bankrupt, spending billions and not addressing the problems. The missed economy is fixing the problems by seeing them and employing millions.

Weather is the basic interaction of cold and warm air with water vapor. That is the reason we aren't supposed to heat the air but we missed a lot in our calculators and buildings across the world are grossly exceeding building code. The domino effect will be more severe weather, droughts, floods, fires and the economy of the world will change.

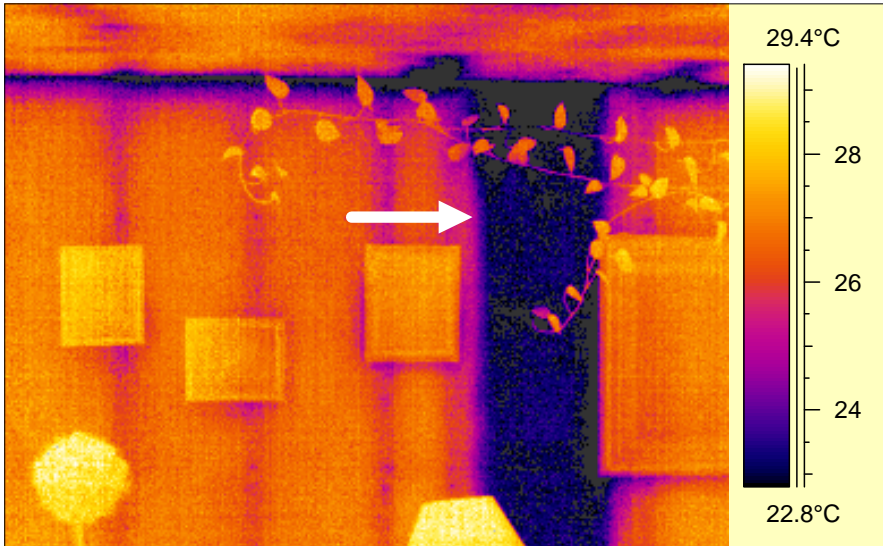
Sincerely,

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**Note: Double click on question marks in the file for more information**



## MISSING INSULATION BEHIND DRYWALL



IR information	Value
Date of creation	1/17/2000
Time of creation	8:58:05 PM
Object parameter	Value
Emissivity	0.90



Energy demand increases and electrical grids are strained so smart meters are being employed to monitor energy use. Energy companies can read the meters from remote locations and save energy to meet energy objectives.

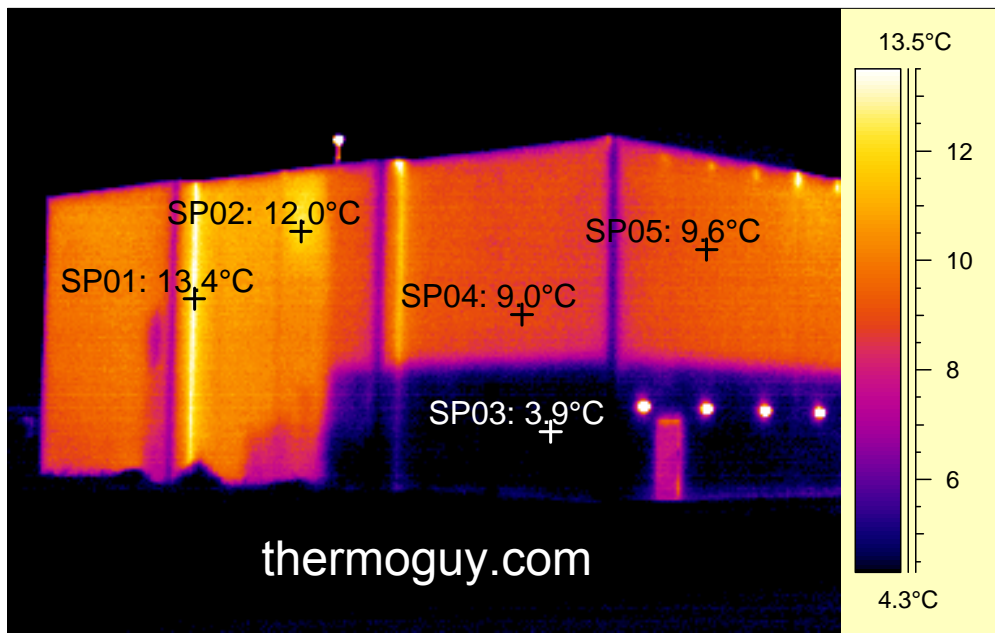
A proper infrared inspection requires imaging the building on the inside as well as the outside and for heat loss as well as heat gain.

The exterior wall image above shows missing insulation values in one stud space. The problem should have been addressed while under warranty but was missed in the inspection.

A blower door test testing for pressure differential wouldn't have caught the problem either.

This is energy loss, fossil fuel and electricity waste producing more GHG emissions. There is a potential for mold and premature failure of building components. That affects the home owner's heat and investment.

Smart meters won't catch or address the energy waste here, they will bill you peak hours for the usage.



IR information	Value
Date of creation	11/25/2004
Time of creation	9:57:02 AM
Object parameter	Value
Atmospheric temperature	4.0°C

### **New Building Illegal But Passed All Inspection**

**4 Deg. C Day, Dark Area is Insulated Showroom.**

**Tilt up Construction, No Insulation, Heaters on Roof and Heat Rises.**

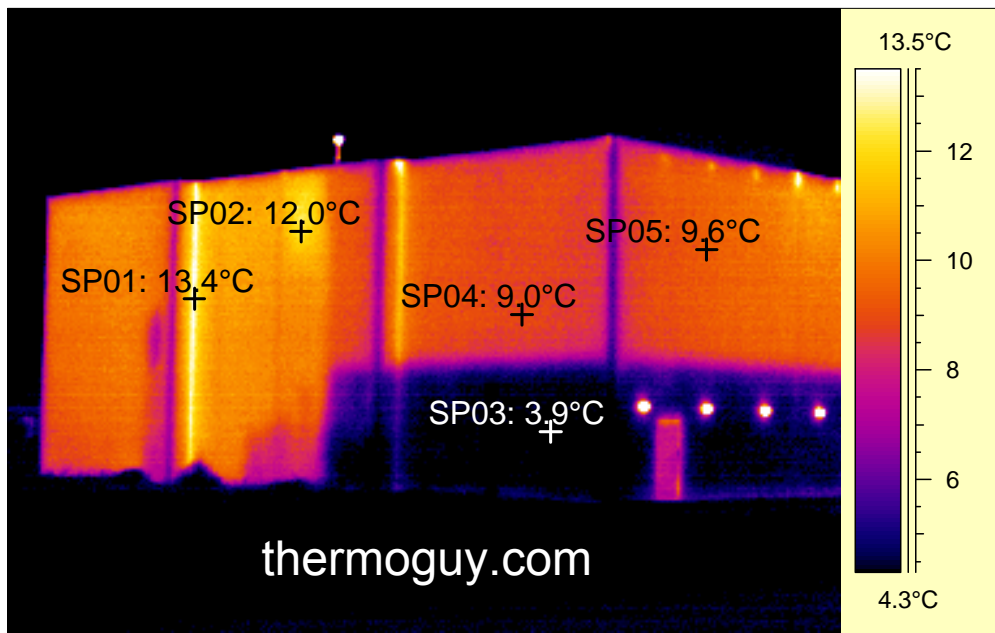
**Mass of Uninsulated Concrete Structure Heated.**

**Building Services Working Overtime, Energy Waste, More Emissions.**

**Beware of Solar Radiation EMFs & A/C Use Responding to Symptoms.**

**A/C is Refrigeration Wasting 1000s of Watts Per Hour Per Building.**

**Blower Door Test Not Addressing the Energy Loss or Saving Energy**



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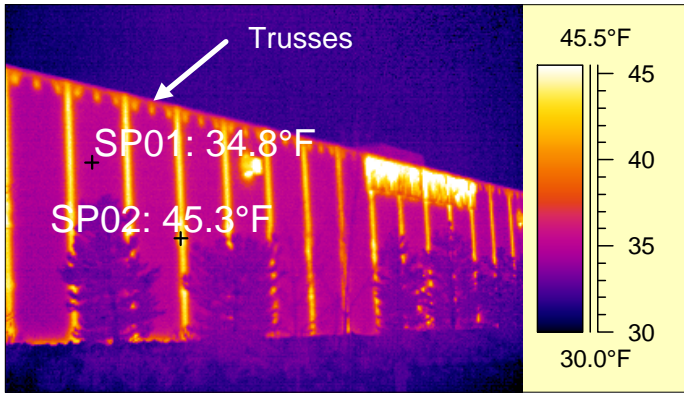
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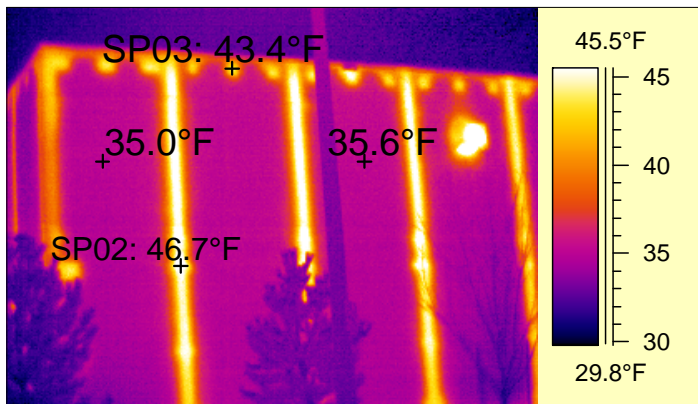
**Blower Door Test Not Addressing the Energy Loss or Saving Energy**



Object parameter	Value
Emissivity	0.90
Atmospheric temperature	20.8°F

IR information	Value
Date of creation	1/12/2003
Time of creation	11:22:53 PM

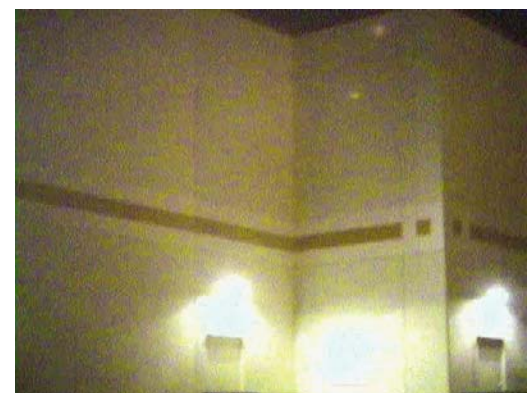
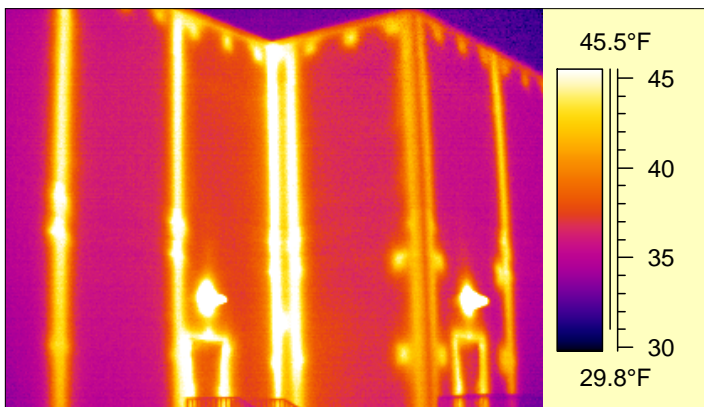
### Home Depot



Object parameter	Value
Emissivity	0.90
Atmospheric temperature	20.8°F

IR information	Value
Date of creation	1/12/2003
Time of creation	11:23:14 PM

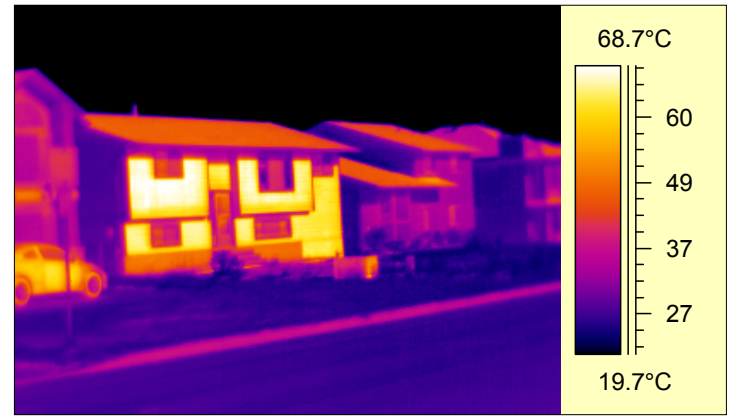
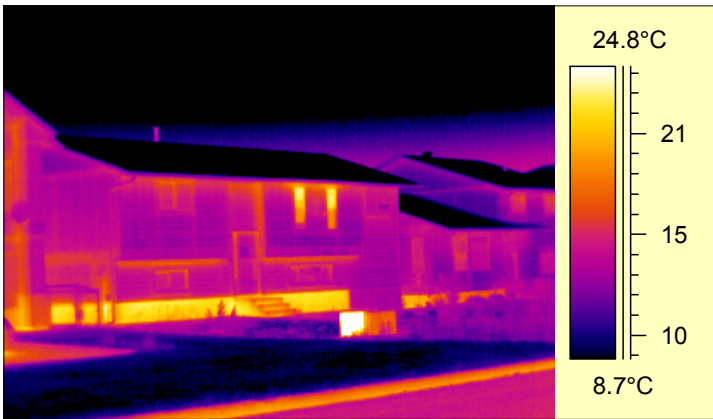
### Home Depot



Object parameter	Value
Emissivity	0.90
Atmospheric temperature	20.8°F

IR information	Value
Date of creation	1/12/2003
Time of creation	11:24:50 PM

### Home Depot



**Before Sunrise**

**After Sunrise**

IR information	Value
Date of creation	7/8/2012
Time of creation	5:02:10 AM
Object parameter	Value
Atmospheric temperature	16.4°C
Relative humidity	0.70

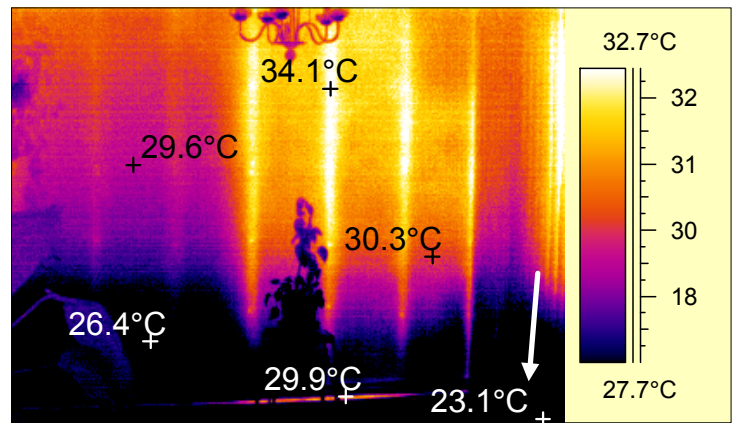
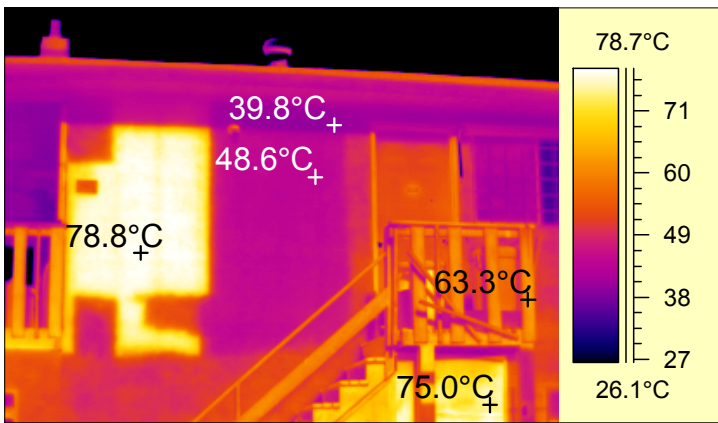
IR information	Value
Date of creation	7/8/2012
Time of creation	8:24:11 AM
Object parameter	Value
Atmospheric temperature	19.7°C
Relative humidity	0.42

Urban Heat Islands are thought to be warmer urban areas. We couldn't see that solar radiation was interacting with exterior materials and causing heat generation the building isn't designed or insulated for.

The images above show the same buildings before and after sunrise. Use the temperature scale to the right of the infrared image to see the exterior of the dark colored building is 69 deg. C at 8:24 A.M. According to building code, the building is designed and insulated for a maximum of 33 deg. C.

When heat is generated, the heat radiates atmospherically and transfers inside the building.

Use the scale to the right hand side of each infrared image to see the color/temperature reference to shaded areas and lawns.



**Exterior Wall**

**Inside Exterior Wall**

IR information	Value
Date of creation	7/11/2007
Time of creation	6:02:40 PM
Object parameter	Value
Atmospheric temperature	26.6°C
Relative humidity	0.33

IR information	Value
Date of creation	7/11/2007
Time of creation	7:52:02 PM
Object parameter	Value
Atmospheric temperature	27.8°C
Relative humidity	0.40

Energy grids are challenged and employing smart meters to monitor as well as conserve energy. They won't save the waste above, they will bill you for peak hour use reacting to symptoms.

We painted an exterior wall 2 different colors and imaged the wall on both sides to see solar impact in the early evening. Use the zoom features to magnify areas of interest. Use the scale to the right of the infrared image for color/temperature reference and the Result Tables below each image for additional infrared information.

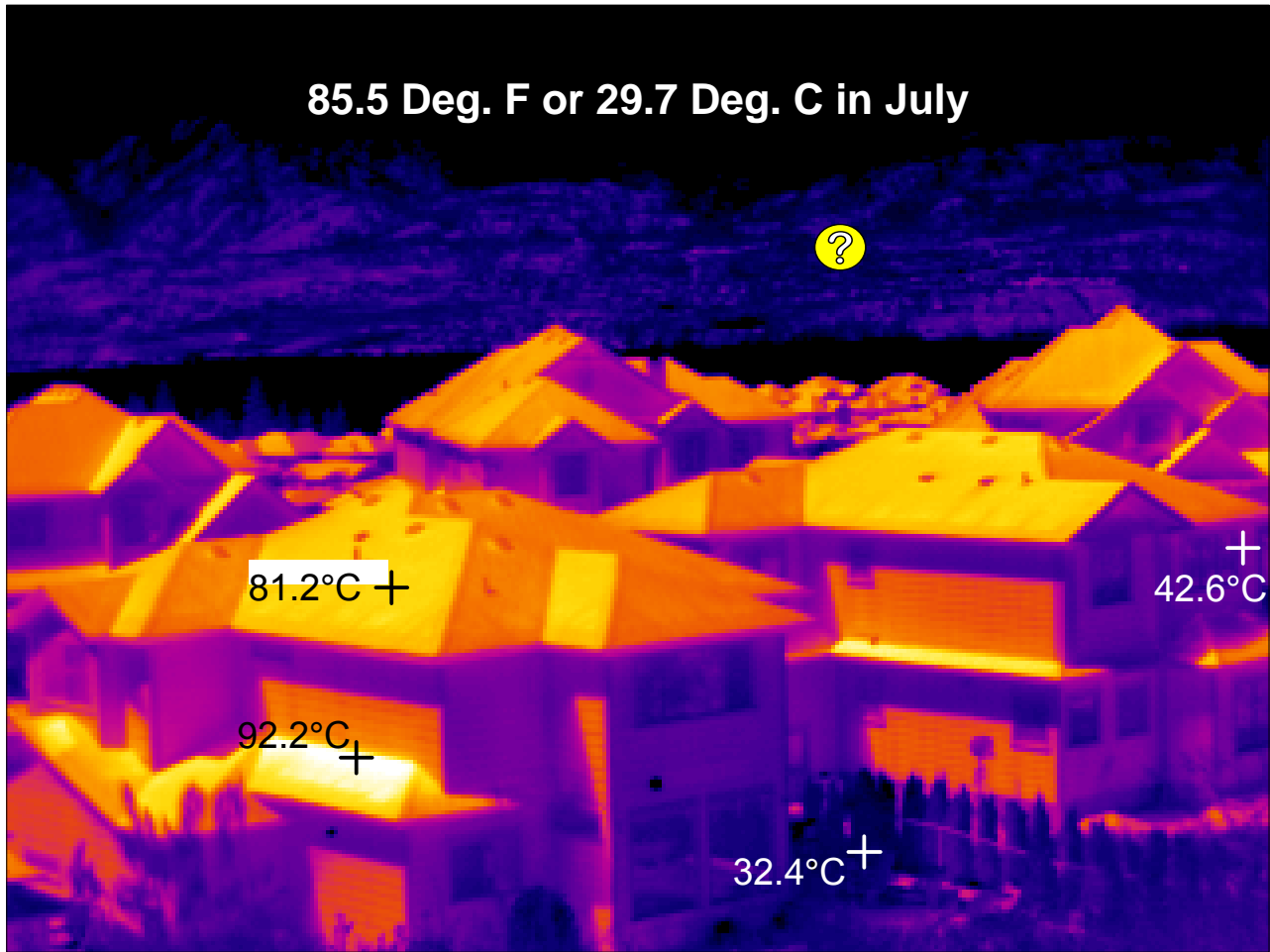
The exterior wall is designed and insulated for a maximum of 33 deg. C. At 6:02 PM the darker area is 46 deg. C above maximum design temperature.

The image top right shows the affect inside the building. The heat from the solar exposed exterior tranfers inside the building through the wood frame and insulated wall.

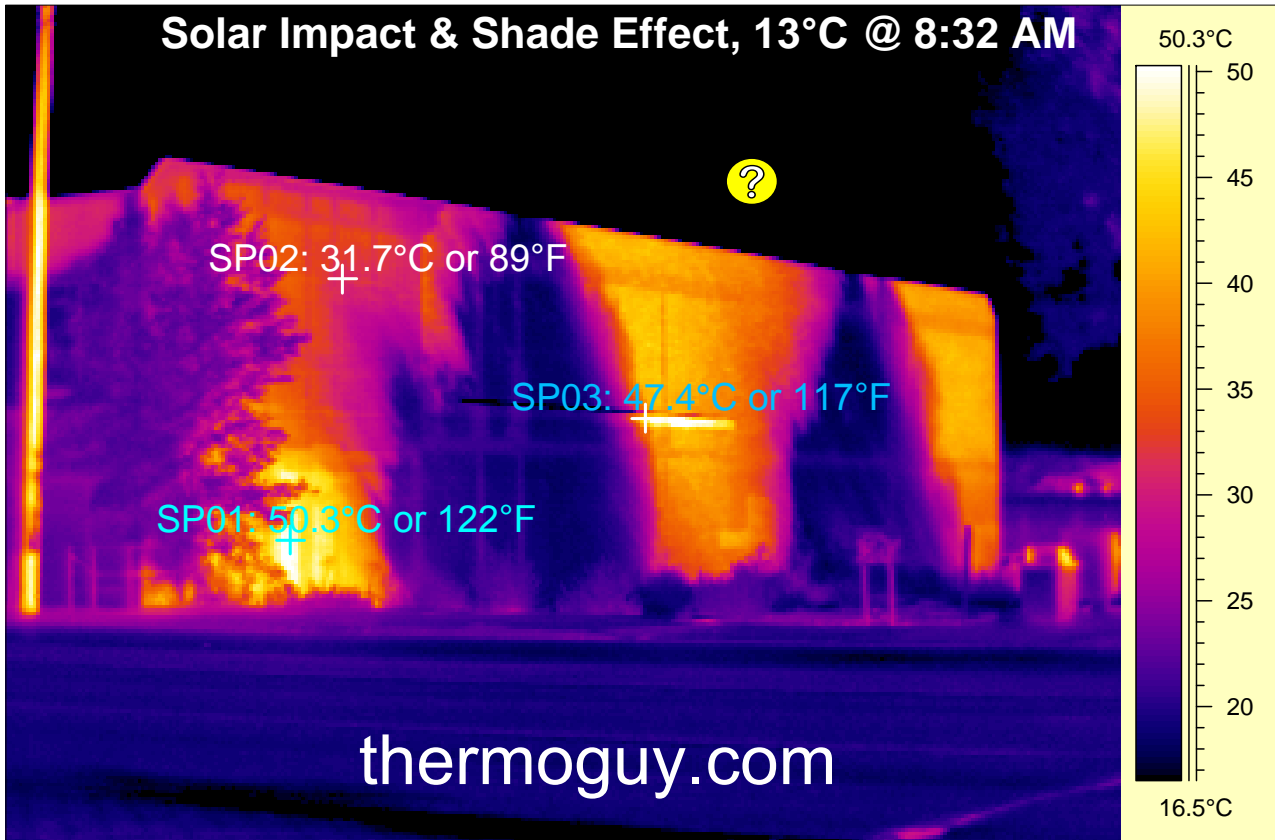
Observe the difference in heat transfer between sides with the dark and lighter exterior colors at 7:52 PM. Lumber is a poor conductor and holds the heat till early in the morning.

The white arrow is highlighting the vent where the air conditioning enters the room. Air conditioning(A/C) is in fact refrigeration and the cold heavy air is laying on the floor creating a mold environment. The A/C unit is using 3450 watts per hour reacting to symptoms. That is 34- 100 watt light bulbs on full time and all of it reacting to symptoms. Producing more emissions wasting fossil fuels and creating an unhealthy home.

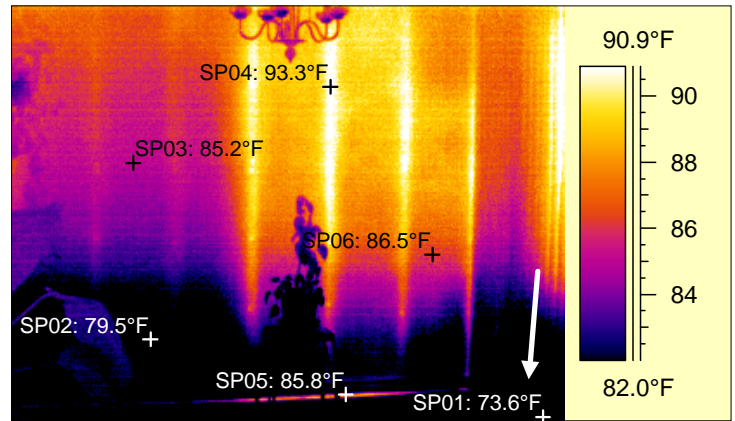
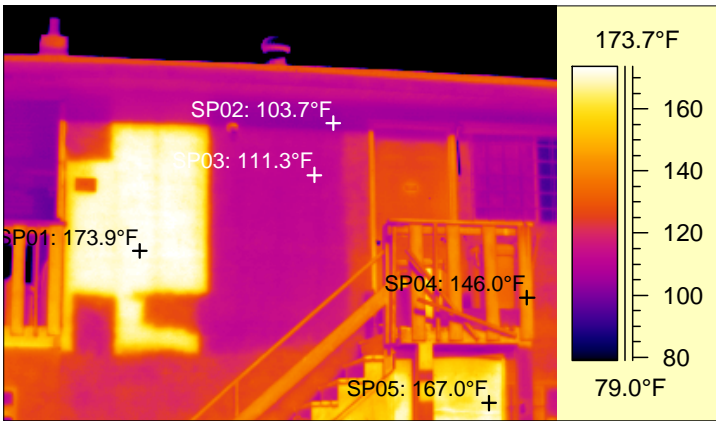
Dew point between the two indoor weather systems meeting creates mold.







**Shade Stops Energy Waste With No Emissions**



**Exterior Wall**

**Inside Exterior Wall**

IR information	Value
Date of creation	7/11/2007
Time of creation	6:02:40 PM
Object parameter	Value
Atmospheric temperature	79.0°F
Relative humidity	0.33

IR information	Value
Date of creation	7/11/2007
Time of creation	7:52:02 PM
Object parameter	Value
Atmospheric temperature	82.0°F
Relative humidity	0.40

Energy grids are challenged and employing smart meters to monitor as well as conserve energy. They won't save the waste above, they will bill you for peak hour use reacting to symptoms.

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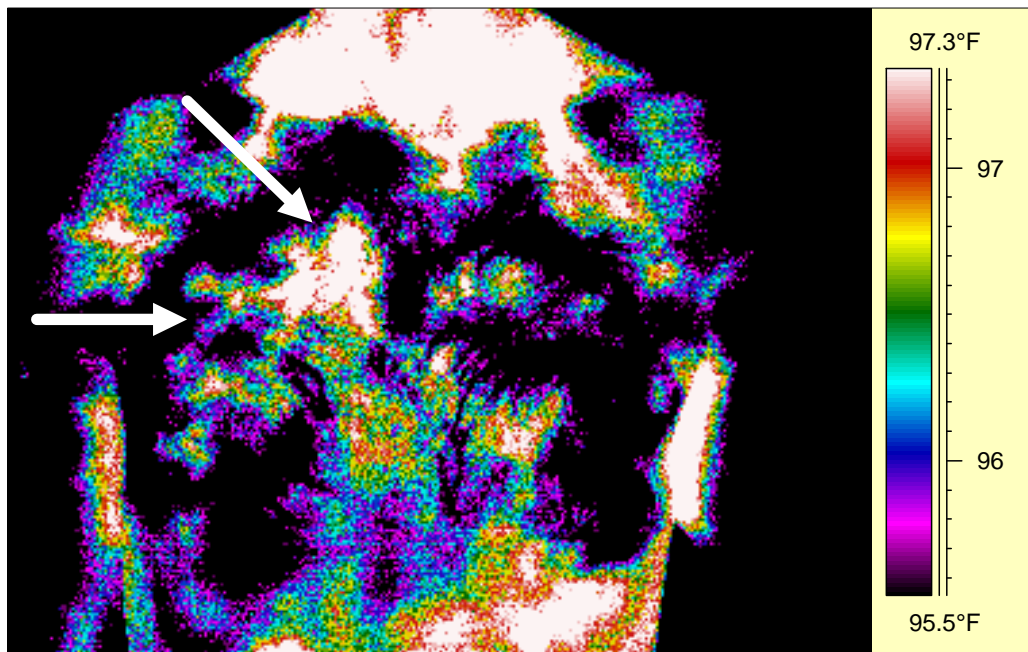
The exterior wall is designed and insulated for a maximum of 92 deg. F. At 6:02 PM the darker area is 94 deg. F above maximum design temperature.

The image top right shows the affect inside the building. The heat from the solar exposed exterior tranfers inside the building through the wood frame and insulated wall.

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Dew point between the two indoor weather systems meeting creates mold.



## Lung Inflammation

With injury or infection there is an inflammatory response but medicine is literally blind to temperature.

The gentleman in the images above has difficulty breathing and we were asked to image him to see if a lung problem could be seen or isolated.

Although there is a lot of temperature information in the image, the arrows are highlighting the source of inflammation. You can actually see the shape of the inflamed lung and there is more inflammation in one area.

The source of his health challenge was a mystery until it was attributed to a mold environment inside his residence. The exterior of his building was a dark color and the A/C ran all day addressing the indoor heat.