

# Revitalizing Product Lines with Alternative Energy Products

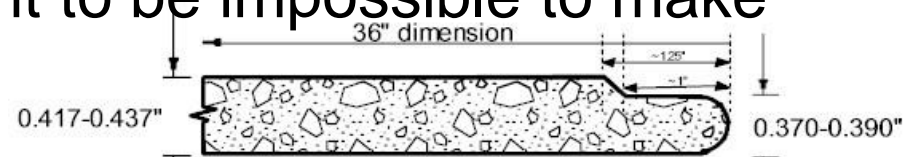
Lisa Schaffer, V.P.

# Company Overview

Fin Pan, Inc. founded 1975 by Ted & Mary “Lou” Clear

Ted Clear invented the continuous manufacturing process for making concrete backer board

Until this time, it was thought to be impossible to make thin concrete in sheet form.

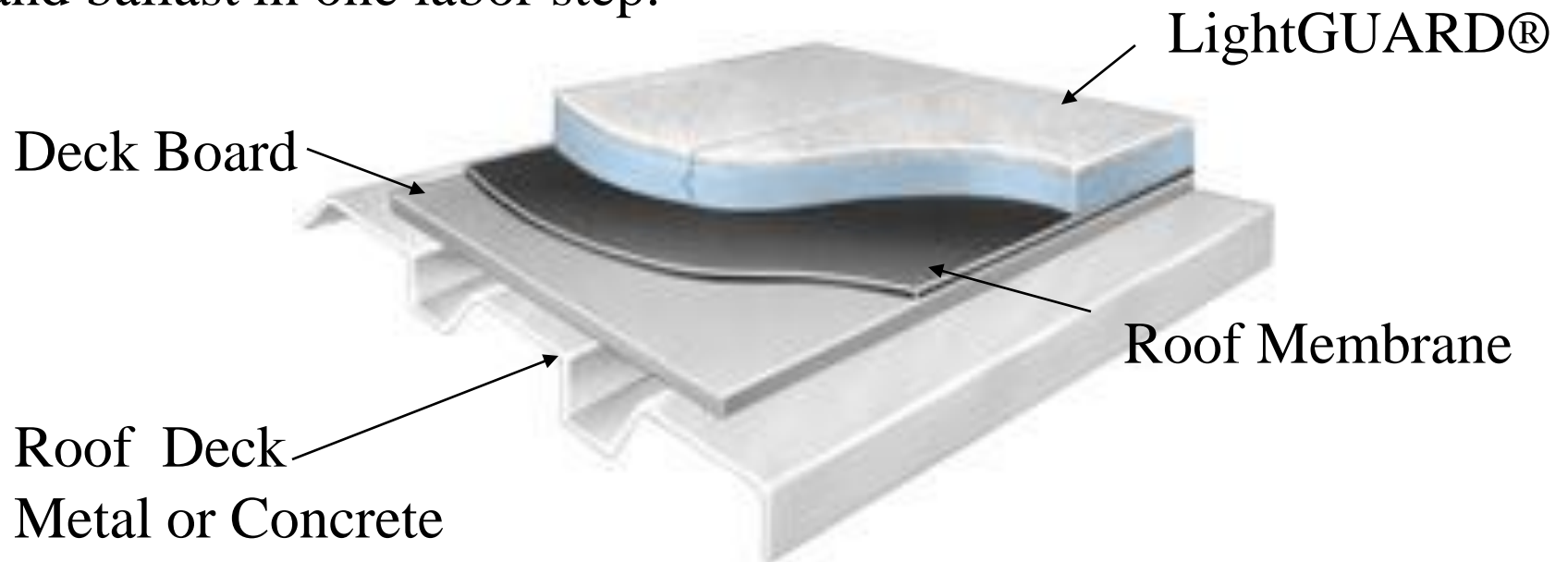


Wonderboard<sup>®</sup> was produced by Fin Pan, Inc. until 1987

The innovation of thin process manufactured concrete caught the attention of another inventor and a large company, Dow Chemical.

In 1976, one of Dow's employees came to Fin Pan, Inc to discuss with us a product that required a thin concrete extrusion.

This product was a revolutionary product that was roof insulation and ballast in one labor step.



## Why was this a timely product?

1973 Oil Embargo -Oil Price Quadruples to \$12

1973-74 Stock market Crash

1974 Emergency Highway Energy Conservation Act  
establishes National Speed Limit 55mph

1974 Year-Round Daylight Savings Time

1975 "Last Out, Lights Out: Don't Be Fuelish."

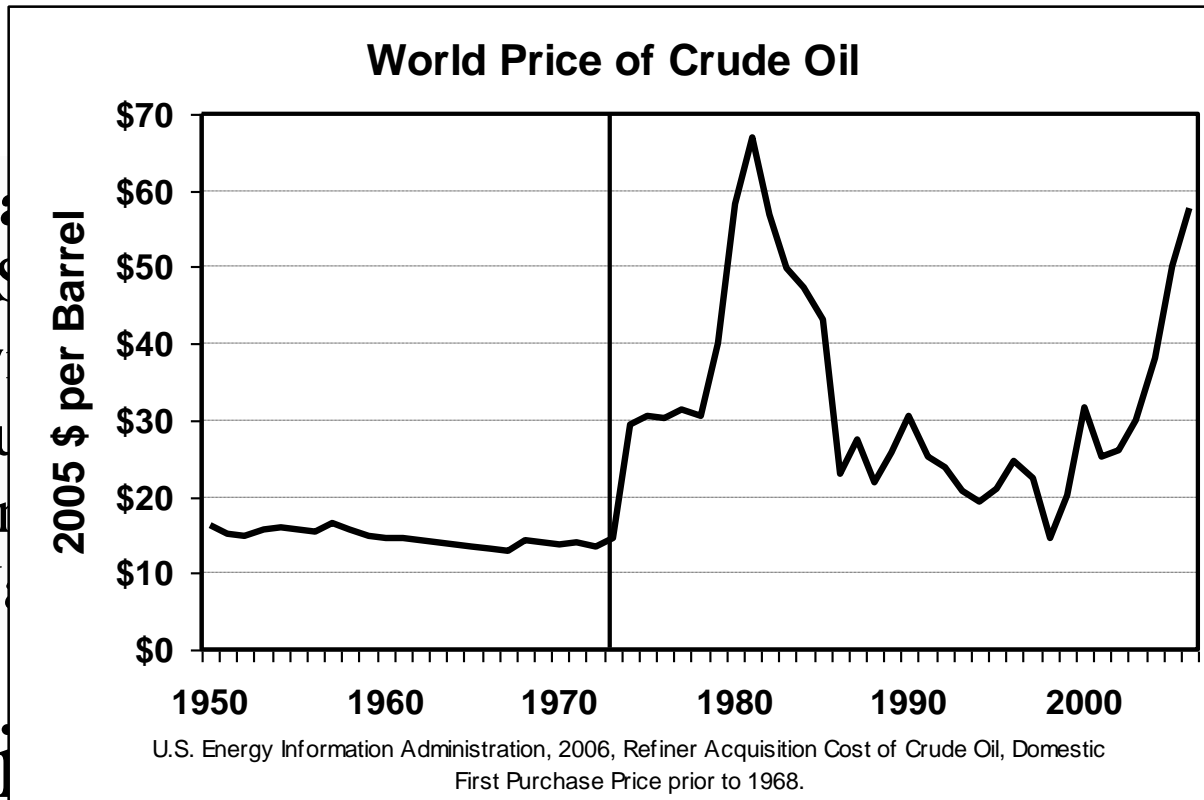
1976 Federal Weatherization Assistance Program

1977 -78 Oil Price Rises to \$38

1977 -79 Federal Campaign to Set Thermostats at 68 for all  
Commercial and Residences

1977 -79 Fuel Rationing & Rolling Blackouts & Fuel Rationing

# It Was the Middle of the 1<sup>st</sup> Energy



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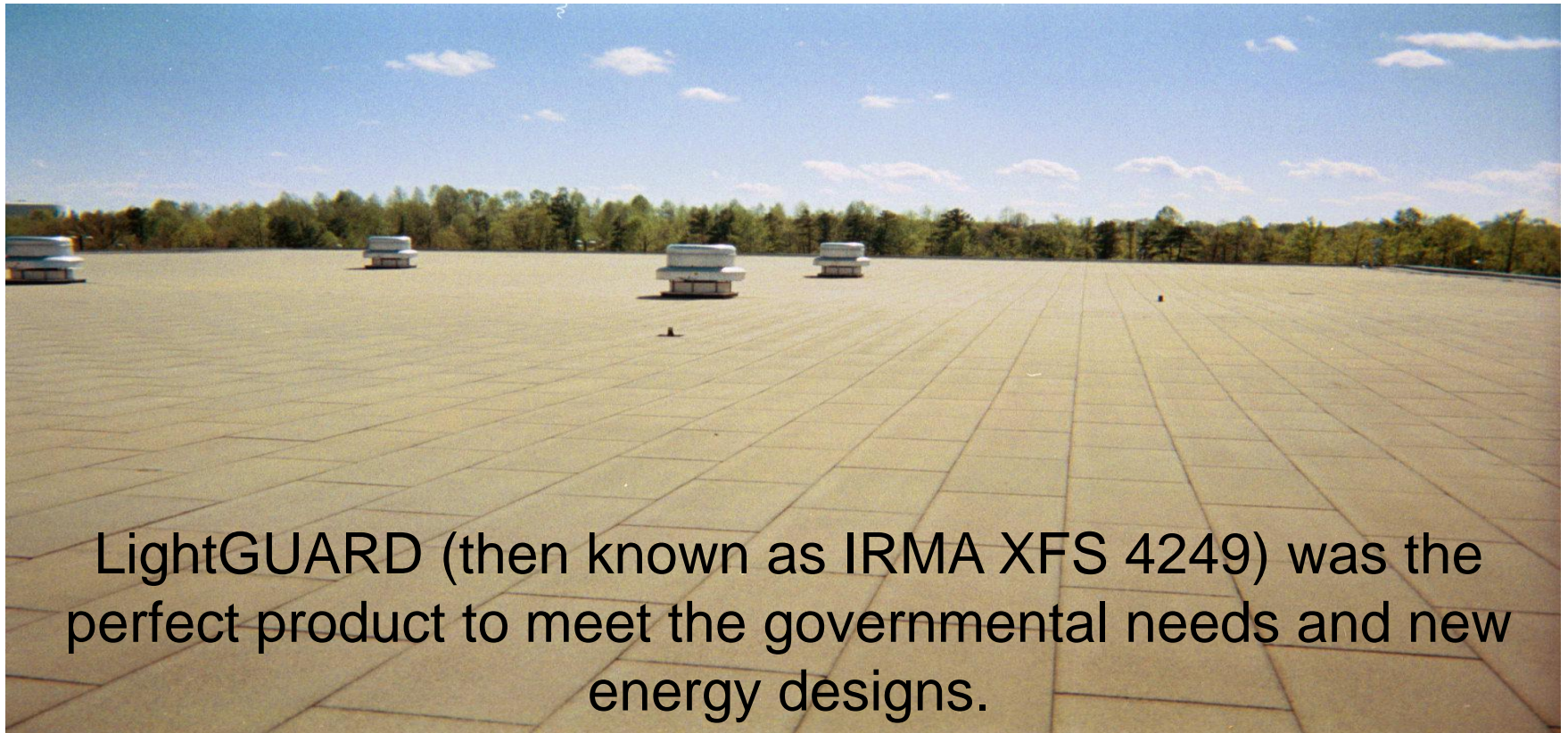
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# Movement!

The resulting legislation began to impose energy building standards and government use of energy efficient materials.



LightGUARD (then known as IRMA XFS 4249) was the perfect product to meet the governmental needs and new energy designs.

LightGUARD solves the 3 largest problems that effect a roof.



**Thermal Shock**



**Physical Damage**



**UV/Sunlight**



**"Alligatoring"**



**"Splitting"**

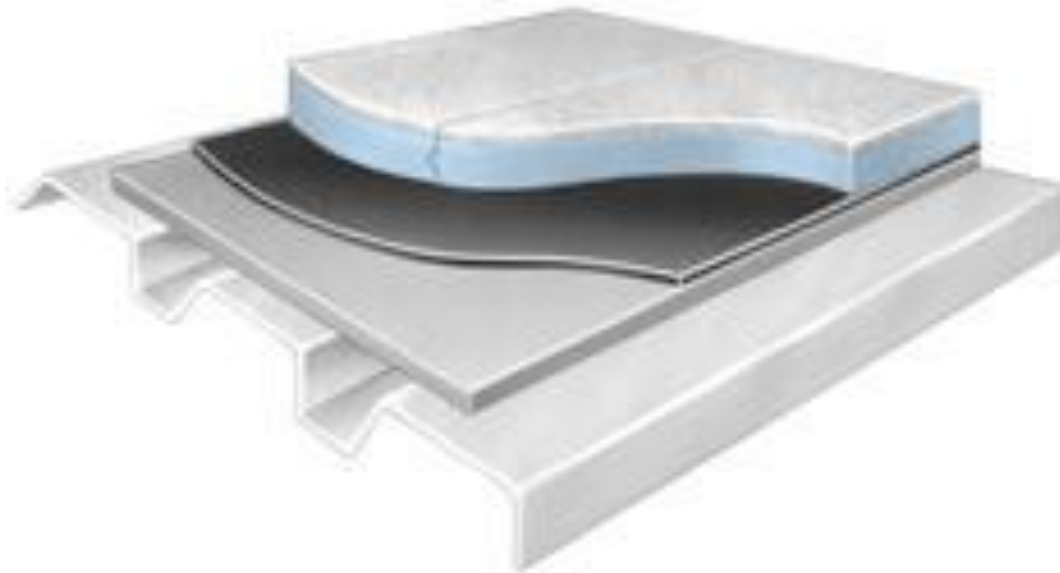
If you protect your roof, you solve many of the problems that negatively effect the life of a building.

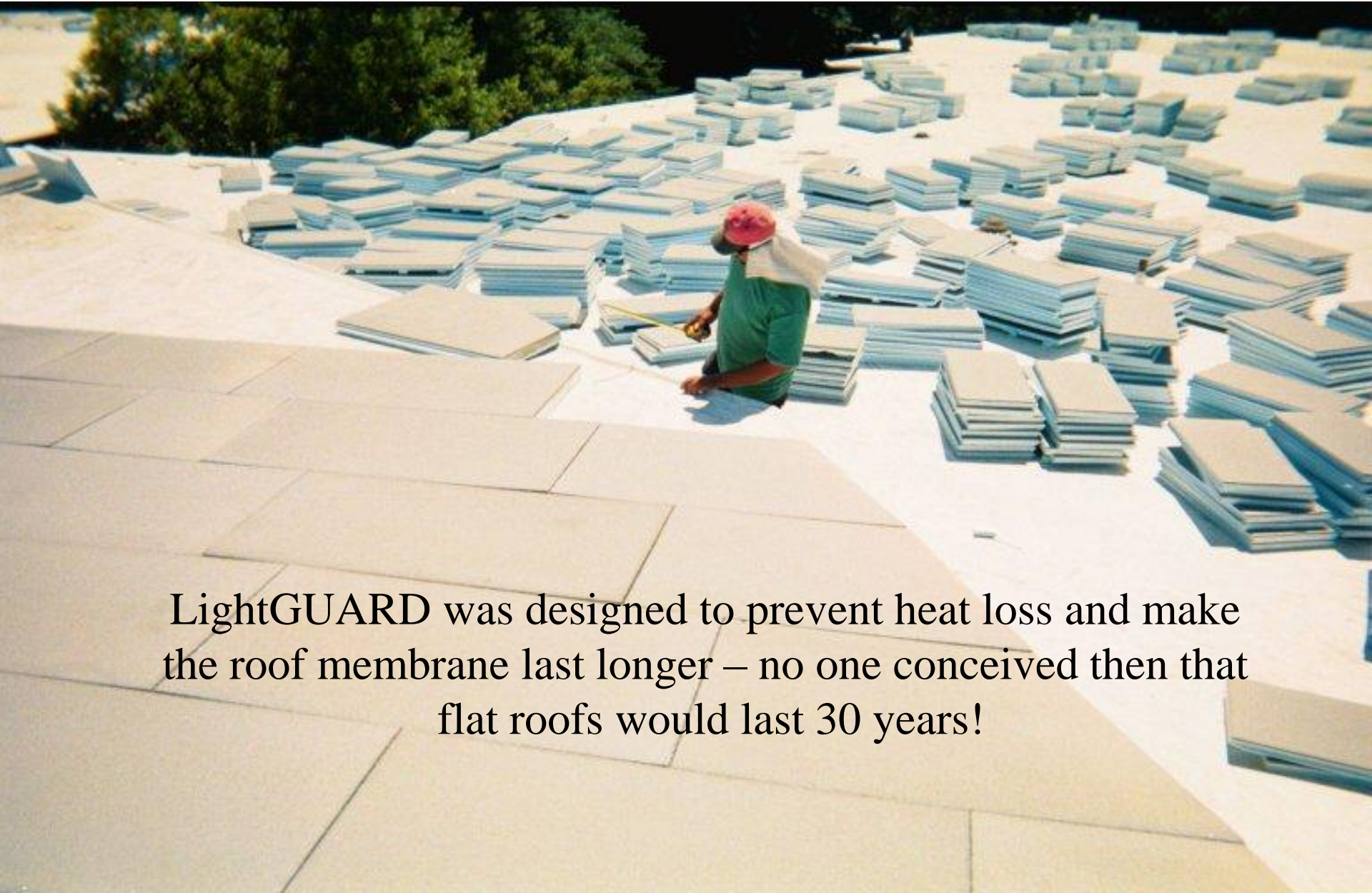


LightGUARD makes the interior insulation function optimally by:

Holding the Roof Deck to Interior Temperature

Moving the Dew Point Outside So That Insulation in the  
Roof Rafters Stays Dry





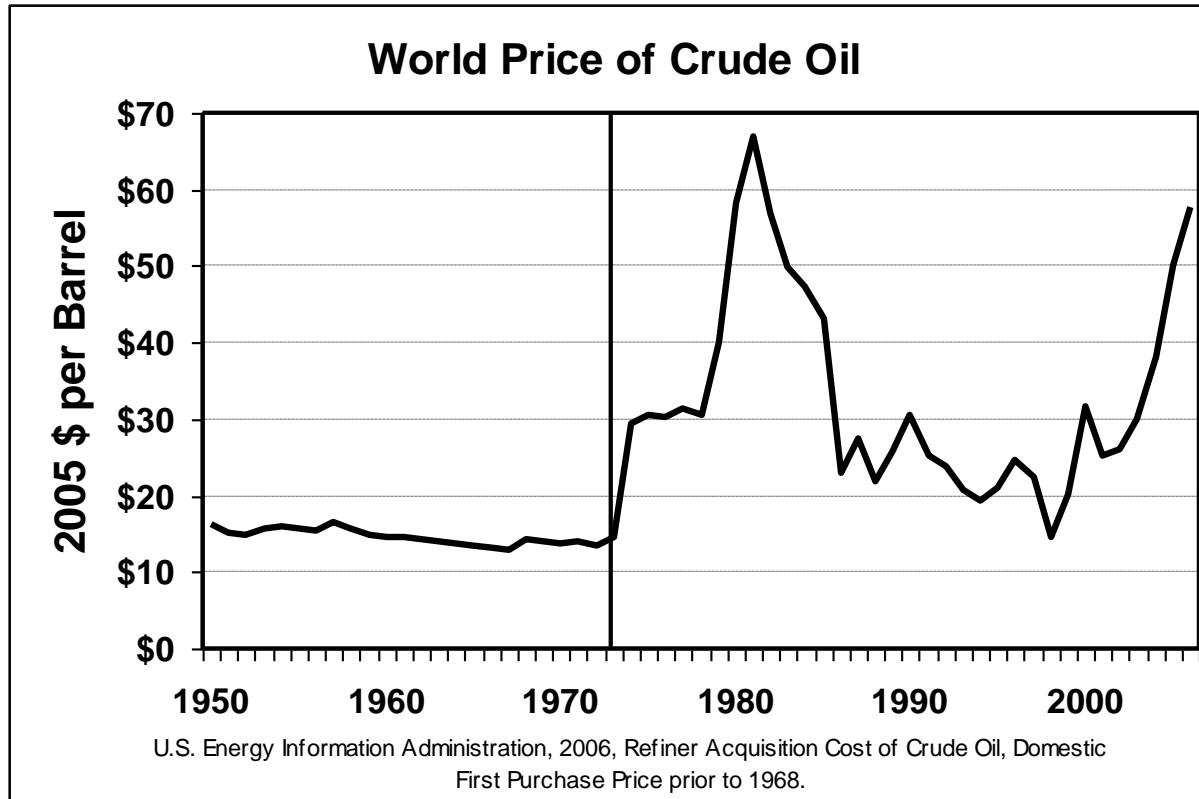
LightGUARD was designed to prevent heat loss and make the roof membrane last longer – no one conceived then that flat roofs would last 30 years!

Over the years, T.Clear LightGUARD has been installed on:

Federal Treasury Buildings  
Smithsonian Institution  
US Embassies Worldwide  
Universities  
Schools  
Hospitals  
Data Centers  
Power Companies  
Hotels  
Casinos

Just to name a few ....





As energy became cheap in the late 1980's through early 2000,

The zest for energy conservation and energy efficient products fell by the wayside.

In 1990, Dow Chemical sold LightGUARD rights to Fin Pan and T.Clear Corp was launched.

The use of solar energy has not been opened up because the oil industry does not own the **sun.** ~Ralph Nader, quoted in Linda Botts, ed., Loose Talk, 1980

Now that energy cost have risen again, the need for energy efficient products have become vogue once again.

This time is different. We do not believe that there will be a regression in our national quest toward energy independence



We took a look at the LightGUARD Product with fresh eyes and found that it solves a new demand and a current problem

The Solar Roof Panel Industry is a growing vibrant industry.

There are two current methods of installation:

### Frame Securement



### Direct placement

Both methods have unique problems and effects on the roof and building envelope.

Frame Securement

Pitch Pocket Penetrations

Wind Up Lift

Aesthetic Challenges



Direct placement

Heat of Panels Causes Degradation  
of Roof Membrane (Short Life)

Creates condensation at Dew Point  
in Roof Deck (Ineffective Insulation)

# LightGUARD Solar

T Clear Corp

paired with a US Manufacturer of Solar Panels to Direct Apply  
Solar to LightGUARD

Concrete Extrusion on LightGUARD makes a perfect heatsink

Roof Membrane is protected from:

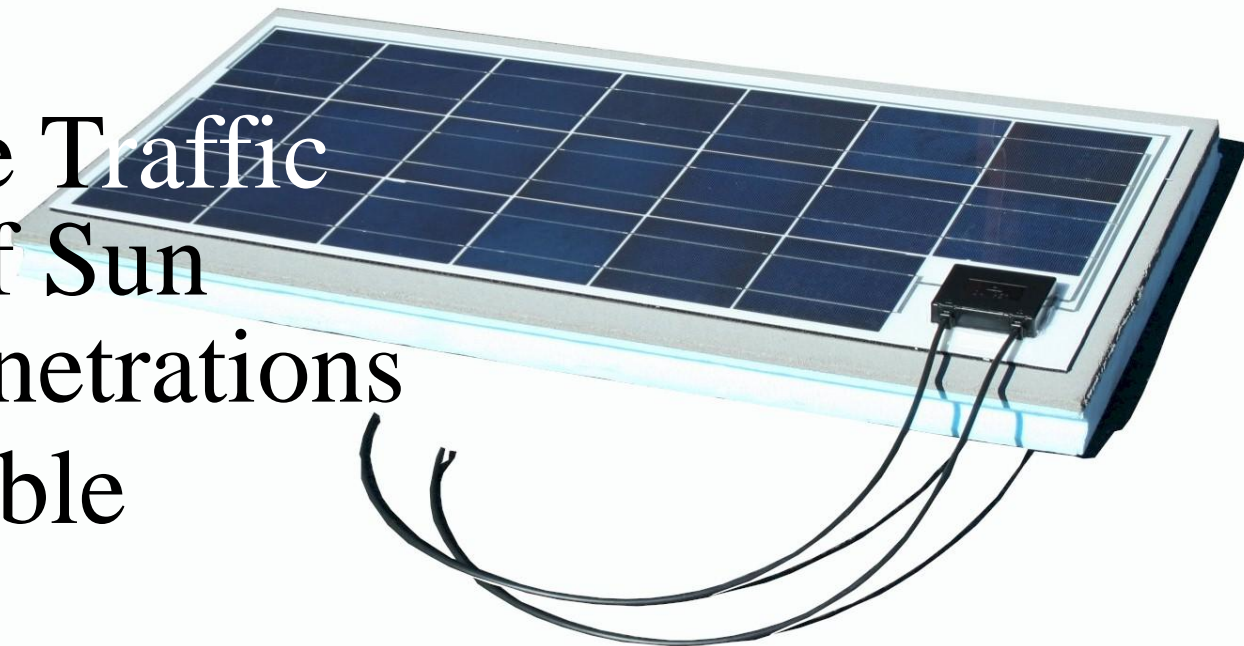
Heat Effects

Maintenance Traffic

UV effect of Sun

No Roof Penetrations

Re-Deployable

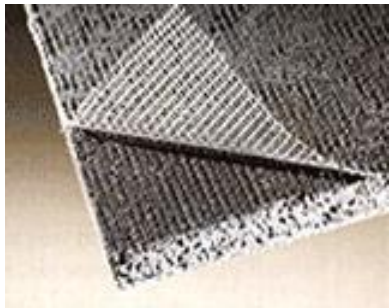


# LightGUARD Solar

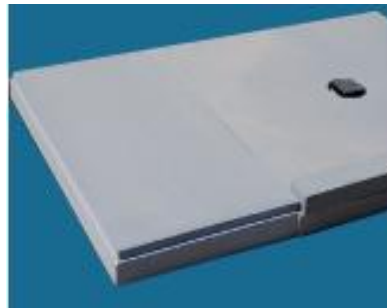
## **We looked to the past to find our future**

We can learn from history how past generations thought and acted, how they responded to the demands of their time and how they solved their problems. We can learn by analogy, not by example, for our circumstances will always be different than theirs were. The main thing history can teach us is that human actions have consequences and that certain choices, once made, cannot be undone. They foreclose the possibility of making other choices and thus they determine future events.

Gerda Lerner, Historian



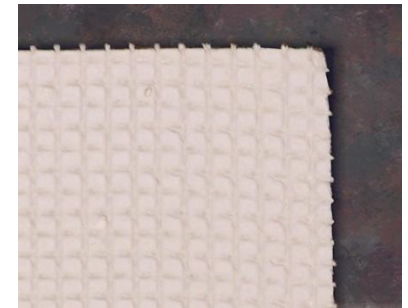
Util-A-Crete



ProPan



PreFormed



ProPanel

# Two Companies : ONE GREAT VISION



LightGUARD



ProGUARD



ProTEC CSIP

ThermaDry

