AKARI ENERGY

HGAC Houston-Galveston Area Council

Solar Power Can Work for You

Introduction to Akari Energy

is the Japanese word for *Sunlight*

Providing engineered solutions to capture energy from the Sun in the most cost effective and efficient method possible.

Akari

SOLAR POWER

Can It WORK?

Kilo-Watt versus Kilo-Watt-Hour:

- Kilo-Watt (kW) is the **SIZE** of the Electric Generating System

- Kilo-Watt-Hour (kWh) is the **AMOUNT** of Electricity created by the Generating System

  Kilo-Watt X Hours Generated or Used

Your Electric Bill is Charged based on: $/kWh

Capital Costs per kW

$7,000
$6,000
$5,000
$3,000
$2,000
$1,000

3 YEARS AGO

$3,000 to $6,000

$4,000 to $5,000

$2,000 to $3,000

So W Coal/Gas Power

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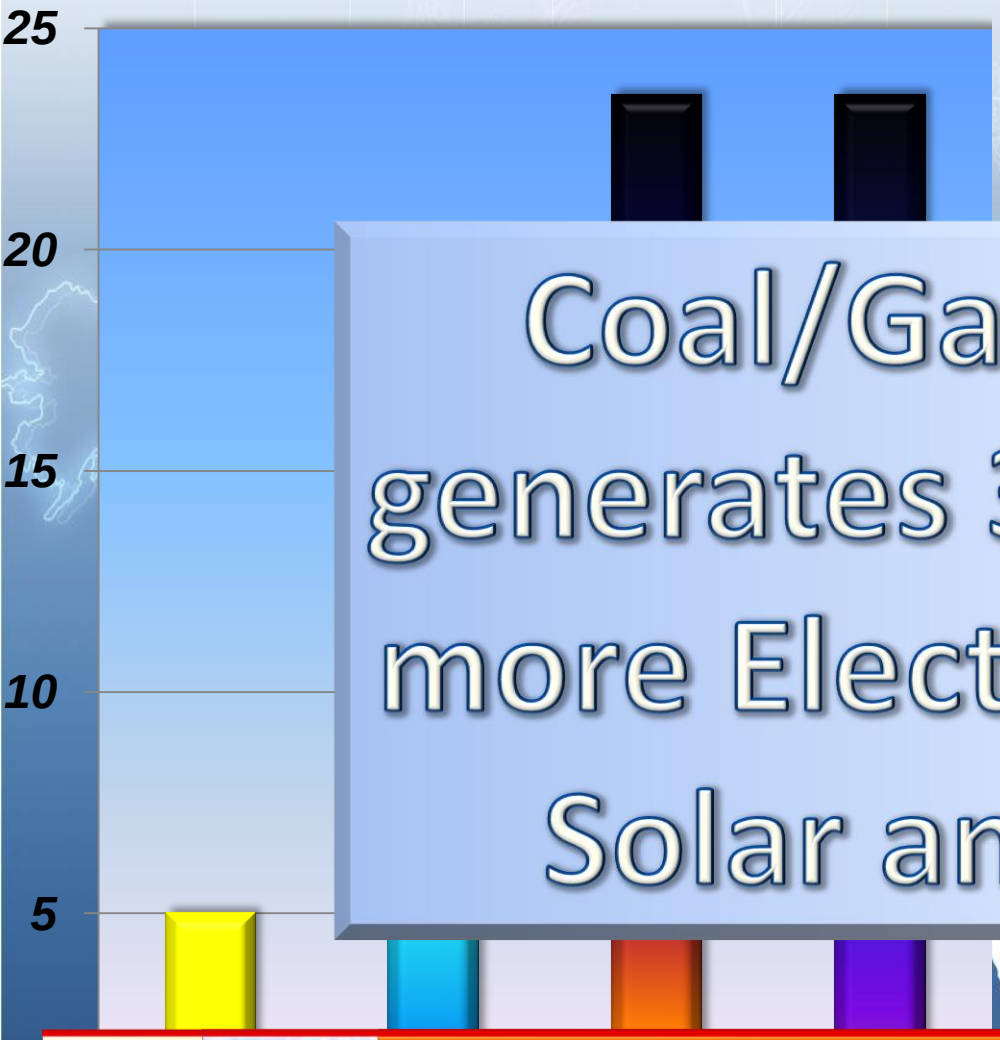
Power Generation – Hours of Generation

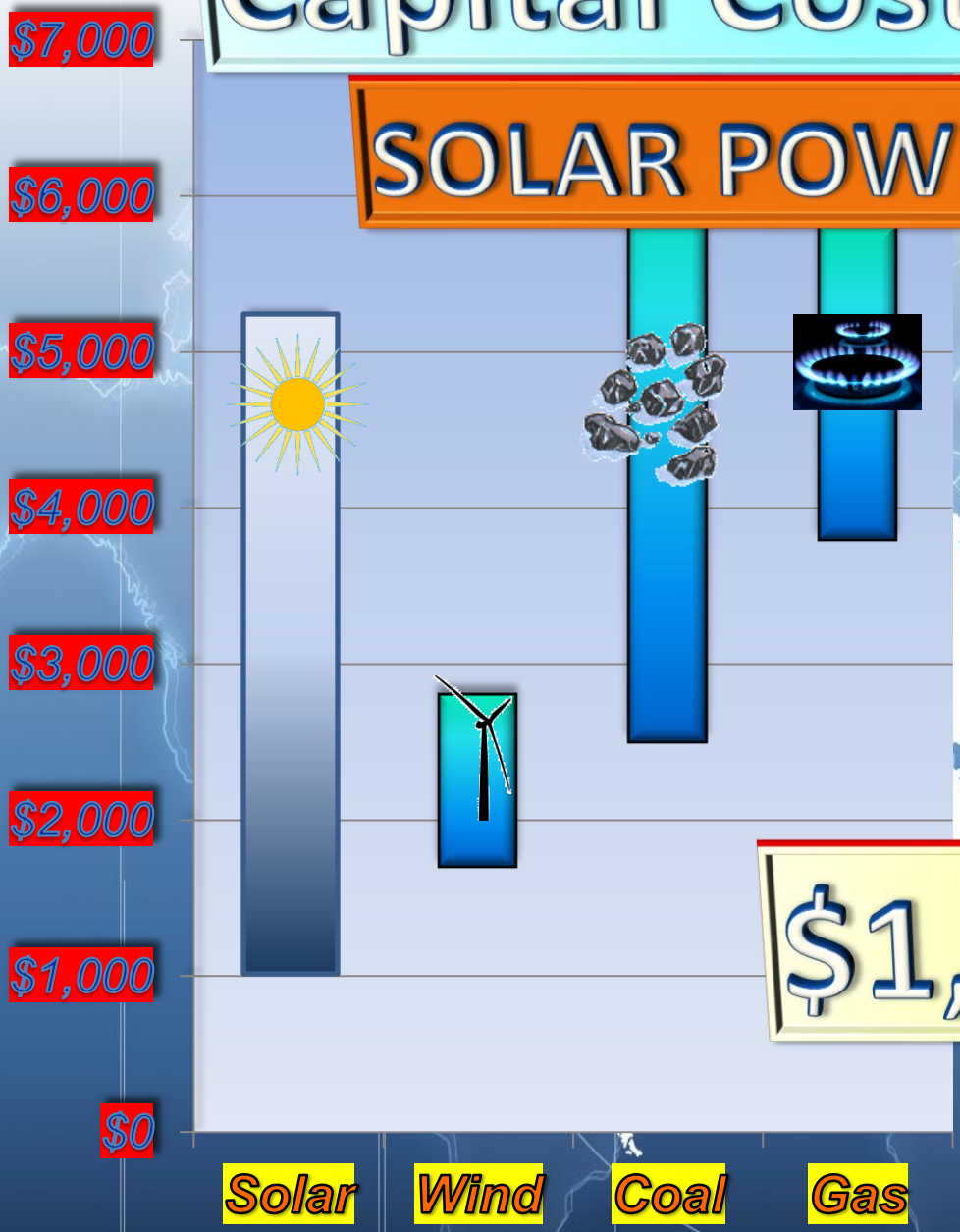


Coal/Gas Power generates 3 – 5 times more Electricity than Solar and Wind

So Wi Coal/Gas Power – 24 hours

Capital Costs per kW

SOLAR POWER TODAY



$1,000 – 5,000

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Solar Insolation – Average Hours of Sunlight per Day

Sun Hours determines the best Solar Power Location

Solar Power Today:

- Kilo-Watt (kW) Costs are **LOWER** than other electric Generating Systems

- Southern Areas of the USA have **MORE SUN HOURS**

LOWER COSTS X More HOURS GENERATING

Grid Parity Achieved in Southern Areas based on $/kWh

SOLAR POWER

How does it WORK?

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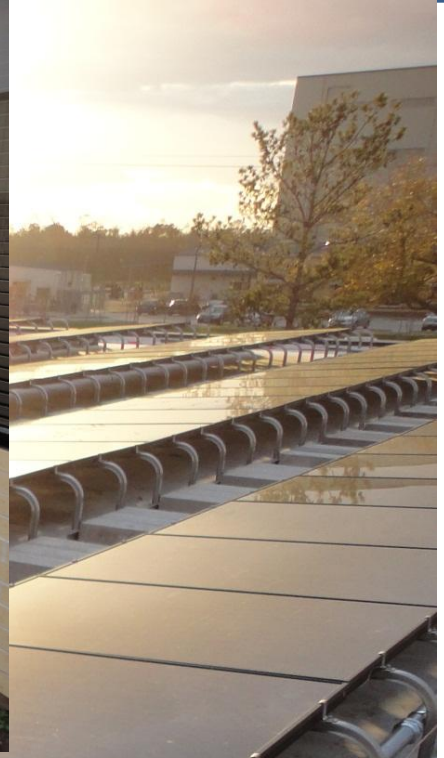
SOLAR POWER

How it CAN WORK

KANEKA TEXAS – LOCATED IN PASADENA JUST SOUTHEAST OF HOUSTON



SOLAR POWER DETAILS

- 486 KTC UA110 solar modules which are 110 Watts each
- SMA Sunny Tower Inverter
- AET solar roof racking with No Penetrations
- Ballasted roof system designed to resist 120 mph winds

Case Study: Kaneka Texas

Located In Pasadena Texas

53.46 kilo-Watt (kW)

SOLAR POWER BENEFITS

- Covers the entire Administration Building
- Provides most of the power of the building
- Uses unused roof space
- Protects the roof from sunlight

Ca

Lo

53

SO

- ➢Roof Saf
- ➢Lifting 1
- ➢Wiring 8

Plant Profile

Energy and Power

Annual Comparison

Visualization

- Plant overview
- Energy and power
- Specific yield
- For Data Download (Monthly)
- Plant overview_1

Report (2)

Devices (7)

Sensors (1)

User Info/Logout

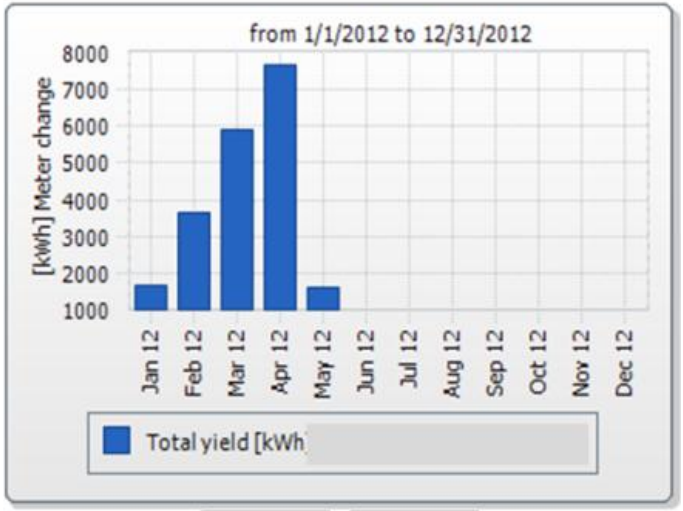
Plant overview | Page Configuration | Help

Date:
5/7/2012

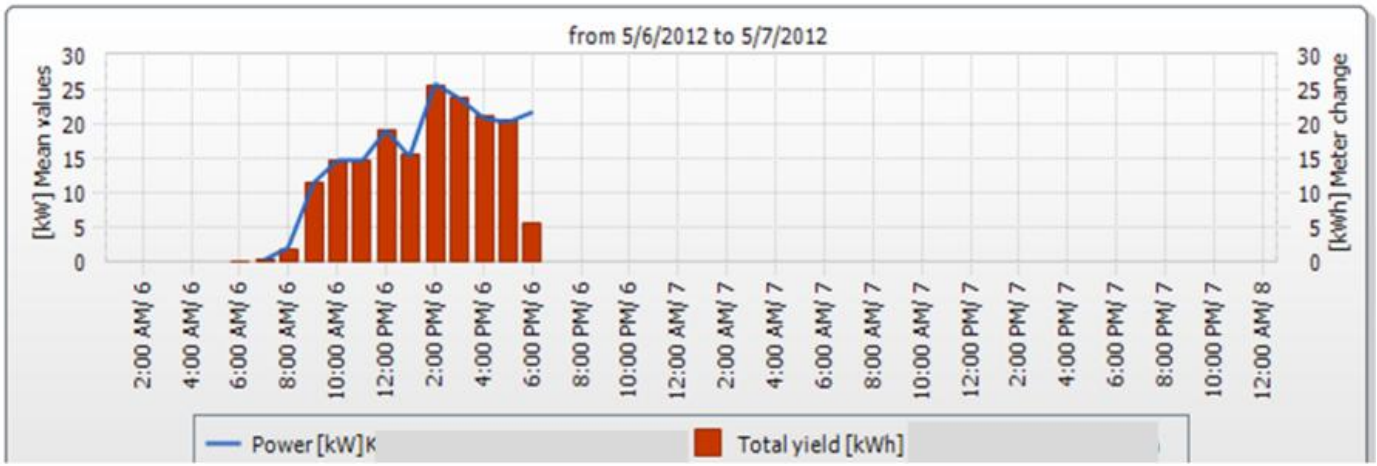
Energy:
27,183.28 kWh

CO2 avoided:
19,028.30 kg

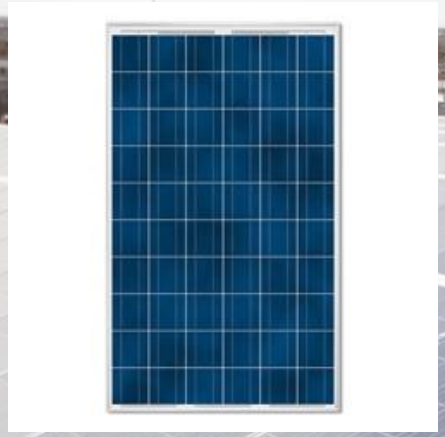
Reimbursement:
11,691.53



1/1/2012 - 12/31/2012



RMS FOODS – LOCATED IN SOUTHERN NEW MEXICO NEXT TO TEXAS



SOLAR POWER DETAILS

- 910 Conergy PM240P solar modules which are 2400 Watts each
- 2 Schneider Electric Inverters
- Conergy solar roof racking with No Penetrations
- S5! Clamps securing the racks to the roof

Case Study: RMS Foods

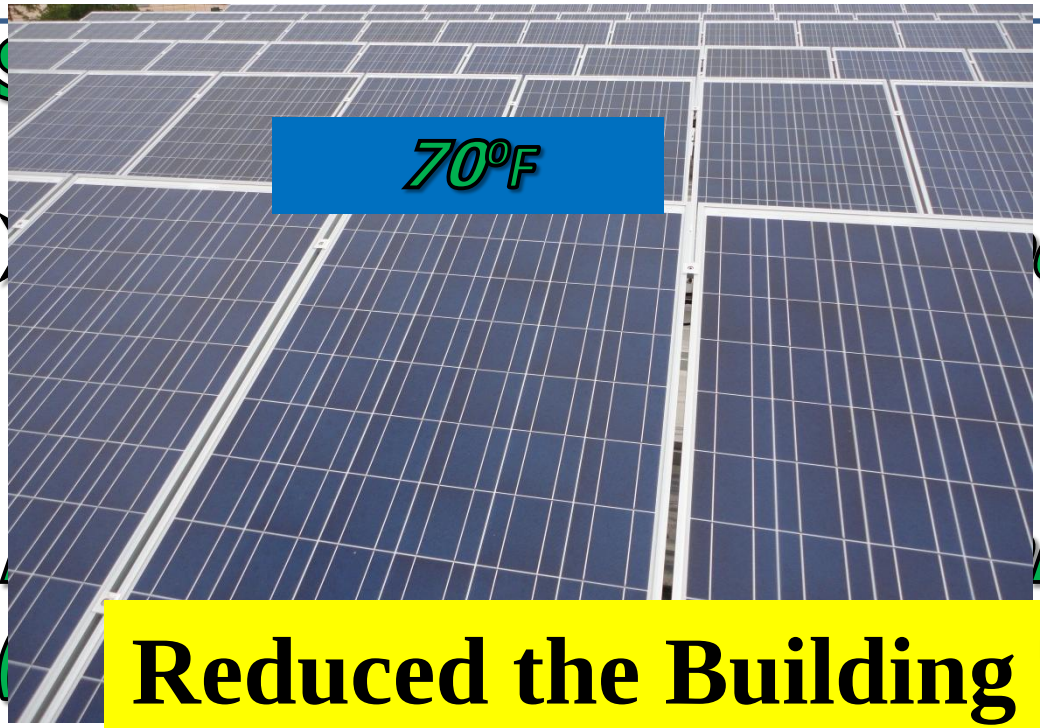
Located In New Mexico

219 kilo-Watt (kW)

SOLAR POWER BENEFITS

- Covers the Cooler and Freezer roofs
- Provides significant power to the building
- Uses unused roof space
- Protects the roof from sunlight
- Cools the roof and building below the roof

- Roof Safety
- Lifting materi
- 480 Volts AC a
- Three phase system
- Connecting the solar power system while RMS in production



Reduced the Building Temperature by 20-30°F

Roof W

(70°F)

21°C

Case Study: RMS Foods

Located In New Mexico

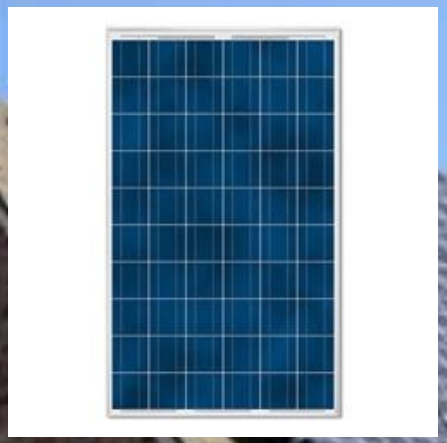
219 kilo-Watt (kW)

FOOD PROCESSOR

ROOF COOLING EFFECT:

- 60ºF cooling of the Roof
- 20-30ºF cooling of the building interior
- Reduced Cycling of AC equipment
- Lower Transition Air temperatures
- DOUBLES THE KWH SAVINGS

RESIDENTIAL SOLAR – LOCATED IN SOUTHERN LOUSIANA



SOLAR POWER DETAILS

- 78 Kyocera 220 solar modules
- 4 Schneider Electric Inverters
- Unirac solar roof racking
- Attic Insulation Added

Case Study: Res. solar

Located In Louisiana

17 kilo-Watt (kW)

SOLAR POWER BENEFITS

- Covers the residential roof
- Cut their electric bill in half
- Uses unused roof space
- Protects the roof from sunlight
- Cools the roof and building below the roof

surfaces

- Superior solar p
- On-site solar mo
- Energy Efficienc

HISD

RICE UNIVERSITY

SOLAR POWER

CAN Solar Power WORK for You?

YES!

Houston-Galveston Area Council and Akari Energy

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Making Solar Power Work for YOU