Saving Green by Going Green

Gabriele Ludwig, Moderator

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2010 38th Annual Almond Industry Conference

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CEU Credits

Continuing Education Units are available for most sessions.

Please check in at the CEU desk in the **Doubletree Hotel lobby** for details and instructions.

Research Update

Turn in your **2010 Research Update** ticket at the ABC booth (#143) in the Exhibit Tent for the 2010 Research Update.

Session at 9:50 am

"Modern Rootstocks for Almonds"

from Progressive Genetics Group (P2G) in Grand Ballroom

Saving Green by Going Green

Presenters:

David Moreland, Ag Pollen, LLC

Rob Williams, CA Biomass Collaborative, UC Davis

Tom Wilson, PG&E

Mandi McKay, Sierra Nevada Brewing Company

Going Solar

David Moreland, AgPollen, LLC

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The Problem

Input costs are going up

Energy has been going up at 6.7% per year for the past 25 years.

Energy is one of our largest expenses at over $300 per acre and one that we have the greatest chance to manage

Why Solar?

Easy technology to buy and the “early adopters” are done

Positive Cash flow

- 30% Federal Grant/ITC
- Possible USDA Grants
- $0.23 per kWh produced paid by MID for 10 years
- Accelerated Depreciation; 5 Years
- 50% Bonus Depreciation (2009)

Protection from increasing utility costs

- Watch the non kWh charges go up in the future

Tax Planning

The Problems with Solar

Financing in 2009 for solar was difficult

- Wanted land values
- Not treated as equipment

Loss of Tree Production

- Took out one acre of trees

One of the first projects for MID

- Difficulty in sizing project and equipment

The Solution

Financing was obtained

- Credits from the Federal Government and USDA covered the down payment
- The bank recognized the project as equipment
- The kWh credits from MID are enough to make the payments

MID and the contractor got it right, and we were up and running in December 2009

Where the Money Comes From

The California Solar Initiative program is there to assist in funding solar projects with a budget of over $2 billion to install about 1,940 MW.

- **This program is funded with our rate paying dollars.**

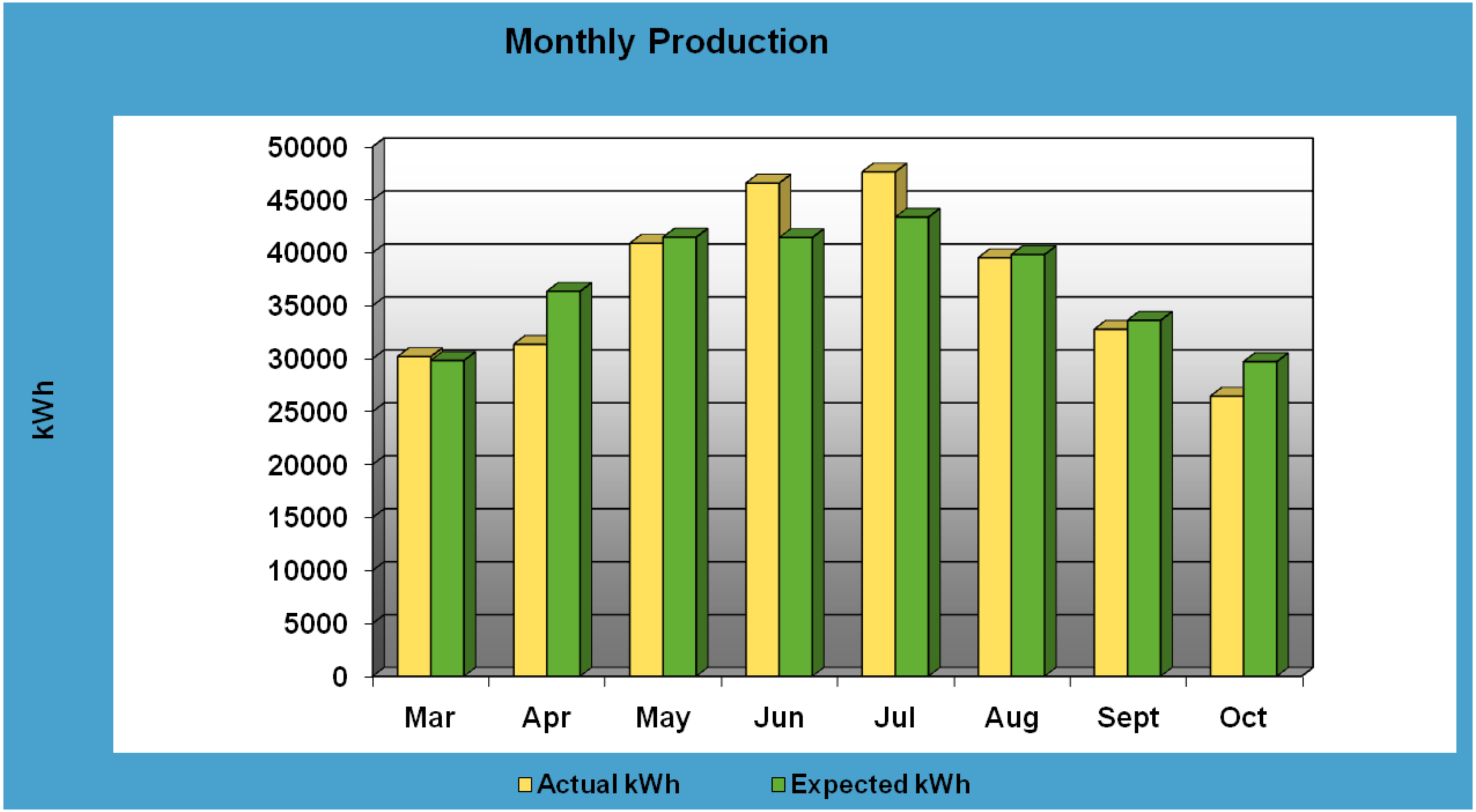
USDA has legislation to help both small and large projects on a competitive basis. Small systems are fairly easy to fund.

The federal tax incentive was a “grant” that I received in less than 60 days after completion.

DLM's Helios Dual Axis Tracker

Did it Work?

Over 100% of expected production, AND over 100% of my pumping needs for 2010. The kinks got worked out and it has been reliable and consistent ever since.



By the Numbers

- **168 kilowatts Photovoltaic System with Dual Axis Tracking**
- **934 modules 180 watts per module**
- **17 Dual Axis Trackers (40% additional generation)**
- **Offsets annual power used by 150 Horsepower pump used for irrigating 240 acres in Modesto Irrigation District**
- **Over 300,000 kWh of electricity produced so far this year**

Cost Benefits

The only charges from MID are the fixed charges.

- MID energy generation incentives are paid semi-annually and have been sufficient to pay the loan costs to the bank.
- Lower operating costs equals lower production costs

Electricity prices locked in over next 25 years (assumed life of the panels). Powerful hedge against future utility price increases

Increased access to markets as more companies demand products that are certified as grown using "sustainable agricultural practices" may translate to higher prices for our nuts

Low risk 25 year warranty

Environmental Benefits

Over 25 years, this solar system is estimated to offset:

- **14,395,767 lbs of CO_2, the leading greenhouse gas**
- **46,196 lbs of NO_x, which creates smog**
- **41,819 lbs of SO_2, which causes acid rain**
- **2,845 lbs of particulates that cause asthma**
- **23,423,349 miles driven in an average car**

It's like taking 76 cars off the road for 25 years,
Or planting 123.3 acres of trees

Certified Sustainable

Meeting energy needs through solar increases the sustainability of any operation

Consumer sentiments increasingly require food processors and food distributors to supply sustainably-grown products

Among other corporations, Walmart is taking aggressive steps to provide sustainably-grown products

This requires processors and distributors to buy raw materials from other certified sustainable suppliers

Beyond Our First Solar Project

We have 3 projects that we are working on

- A small (40hp) ditch water pumping solar station

A 100 kWh solar steam power generator for a deep water well

Off-grid Systems to

- Windmill to pump domestic well water into tanks
- Off-Grid PV-battery powered housing for Ranch Managers

Small Ditch Water Pumping Station

Who says solar projects have to be big?

A small solar system can be very cost-effective, especially if you qualify for a USDA grant

USDA Grants

Rural Energy for America Program (REAP)

Funds for wind, solar, biomass, and biofuels are available

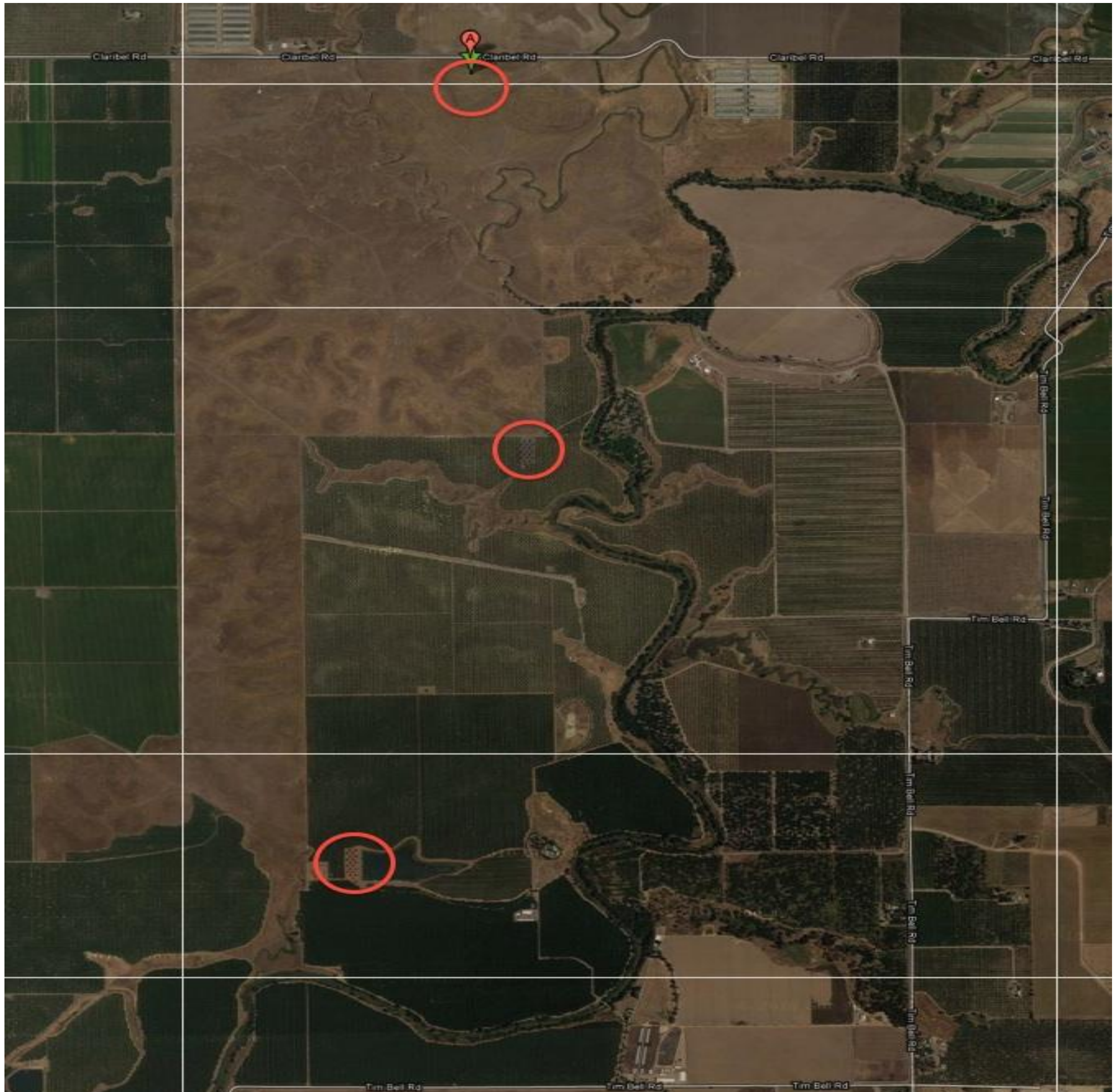
- Funding up to 25% of project
- Projects under $200,000 are much simpler and stand a good chance of being funded

Make sure your vendor knows how to help you fill out the forms

More information:

- Phil Brown, USDA Phil.Brown@ca.usda.gov

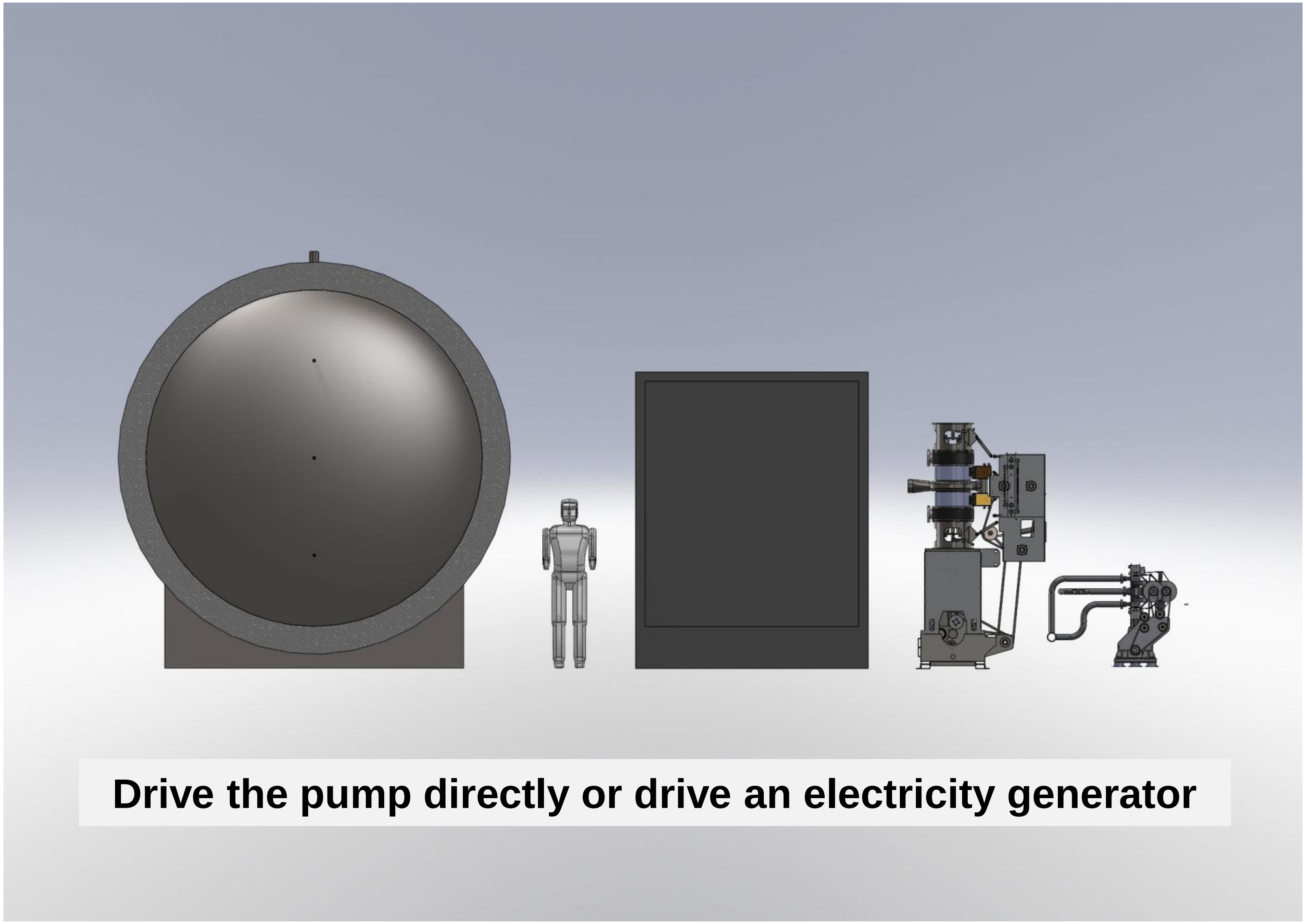
Past, Present and Future



PV vs. Solar Steam

Solar Steam Looks Like:

Steam Generator



Steam Generation Specifications

In the same space as a PV system, the solar steam system will supply 2 times the kWh

The power can be provided day and night, as needed

Can be connected to the grid or completely standalone

Approximately 5 year payback

Why Solar Steam?

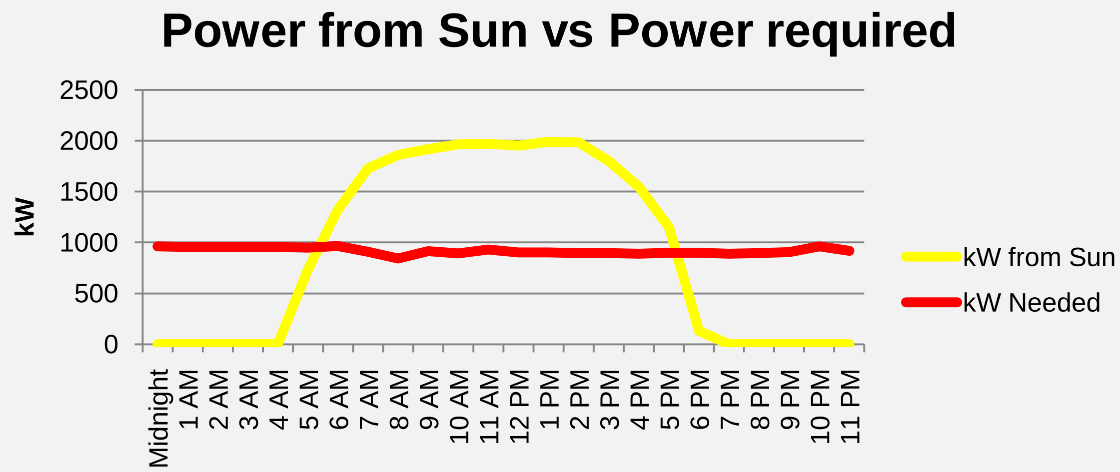
In the same space as a PV system, a Solar Steam generator will supply 2 times the kWh and is available day or night

Complete grid independence

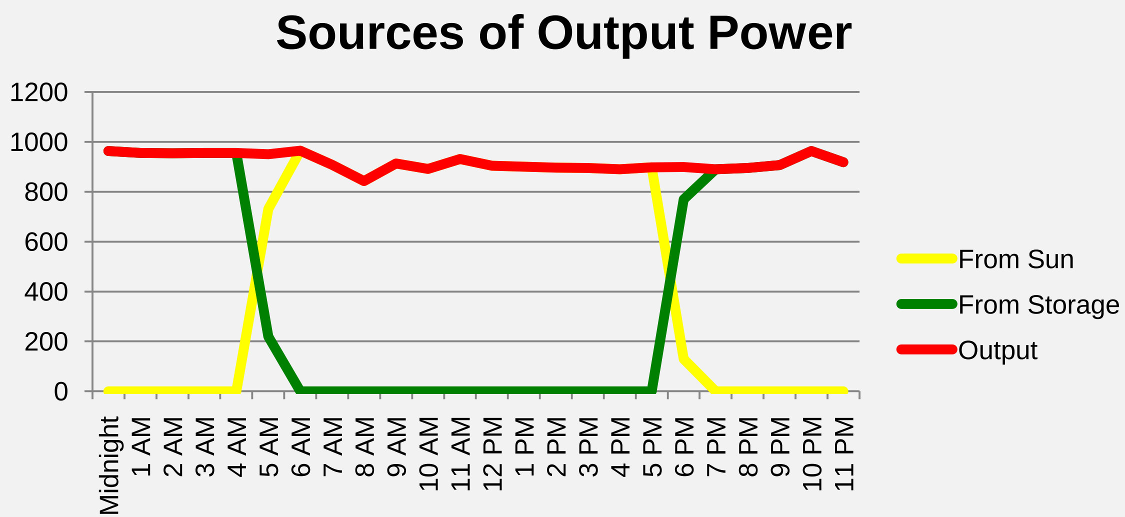
- **PV uses the electrical system as "storage"**
- **Solar Steam has its' own storage system**

Less than a 5 year payback vs. diesel

Steam vs. PV

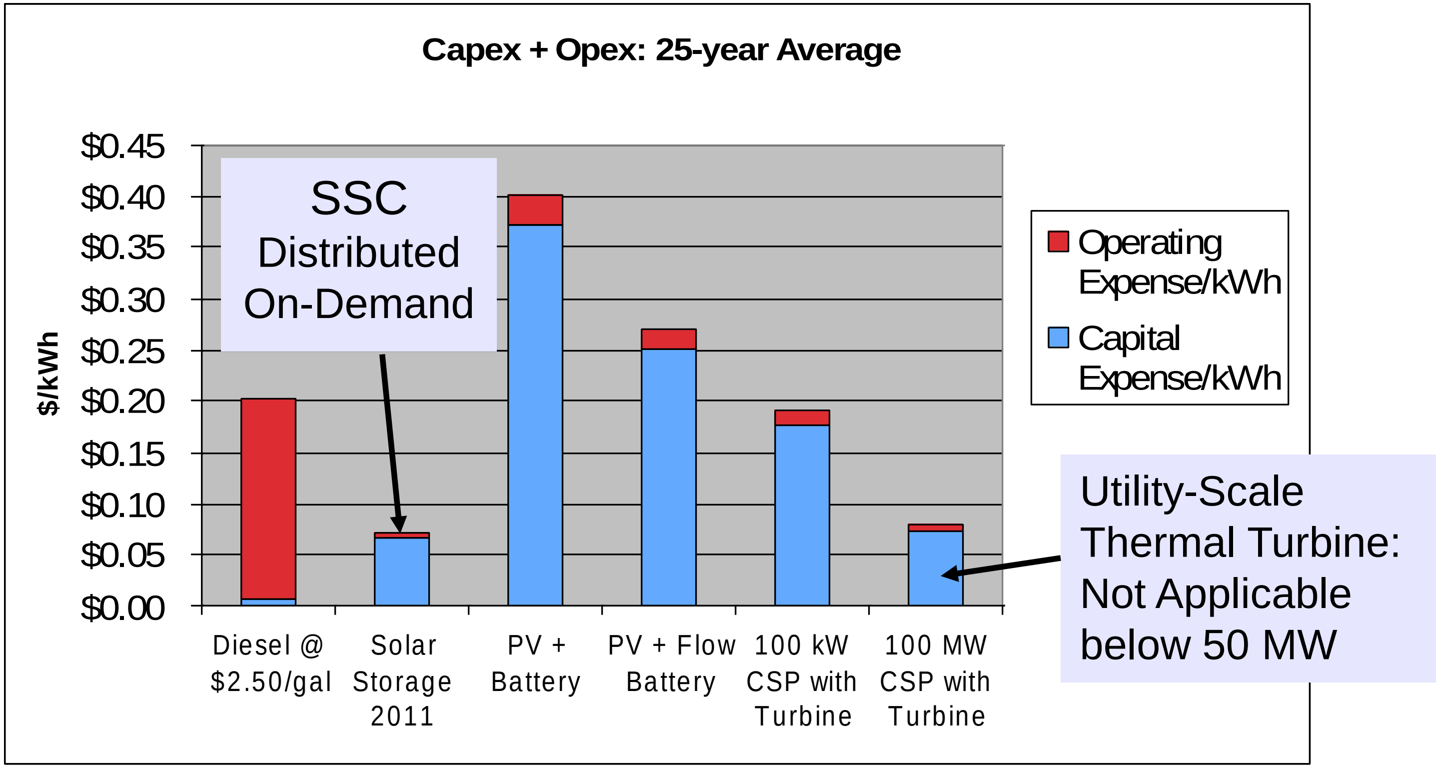


Sun is only out part of the day



Mix of stored and immediate energy provides power as needed

Thermal Storage is Cheapest



Diesel Benchmark
- $2.50/gallon

Irrigation Benchmark
- 900 W/m^2/day DNI
- 15 kWh storage per kW capacity
- 2,465 hours annual usage

In Summary

As with all things:

- ✓ **Define the problem. What are we really trying to solve?**
- ✓ **Compare the costs per kWh of generation**
- ✓ **Take advantage of cost incentives while they last**
- ✓ **Ensure that your vendor has the experience and is going to be around**

Thank You

Current Challenges and Future Opportunities for Bio Fuels and Gasification

Rob Williams, CA Biomass Collaborative, UC Davis

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Principal Biomass Conversion Pathways

Conversion

Thermochemical Conversion

- Combustion
- Gasification
- Pyrolysis

Bioconversion

- Anaerobic/Fermentation
- Aerobic Processing
- Biophotolysis

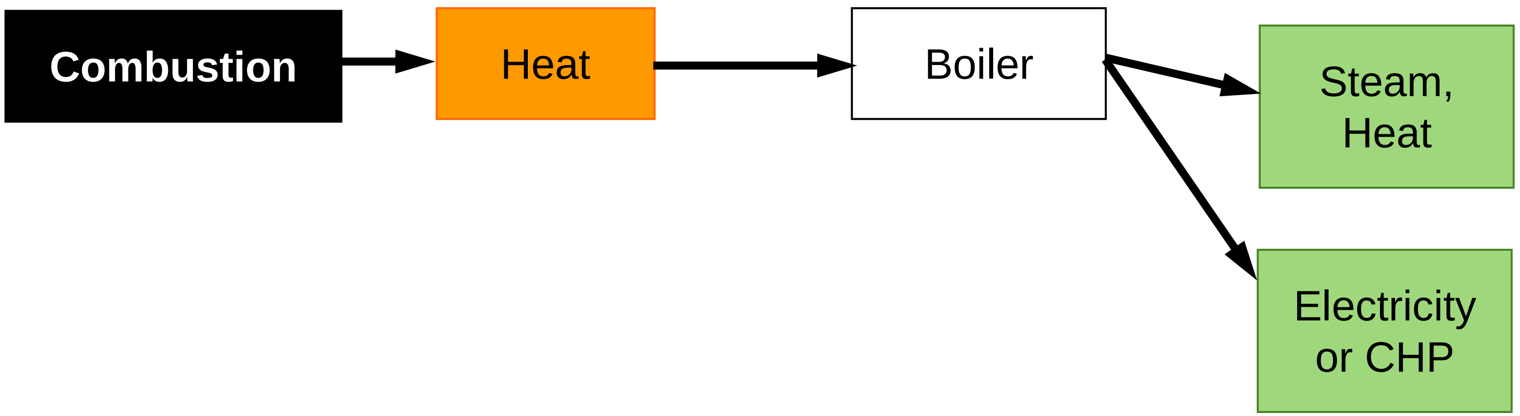
Physicochemical

- Heat/Pressure/Catalysts
- Refining
- Makes e.g. Esters (Biodiesel), Alkanes

Products

- Energy
  - Heat
  - Electricity
- Fuels
  - Solids
  - Liquids
  - Gases
- Products
  - Chemicals
  - Materials

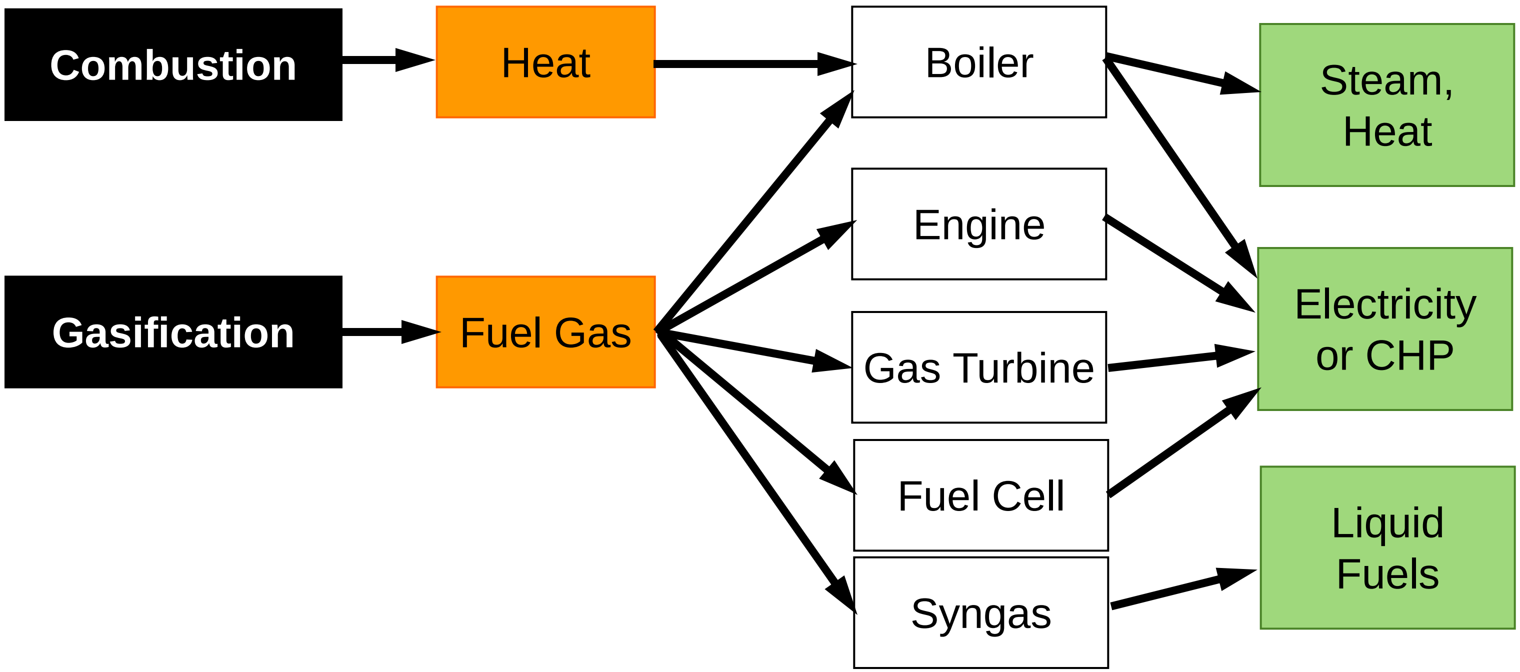
Basic Thermal Technologies



Combustion: Goal is "Complete Oxidation"

Fuel + Excess Air → **Heat**
+ Combustion Products (CO_2 + H_2O)
+ Pollutants (PM, CO, NO_x, SO_x, others)
+ Ash

Basic Thermal Technologies



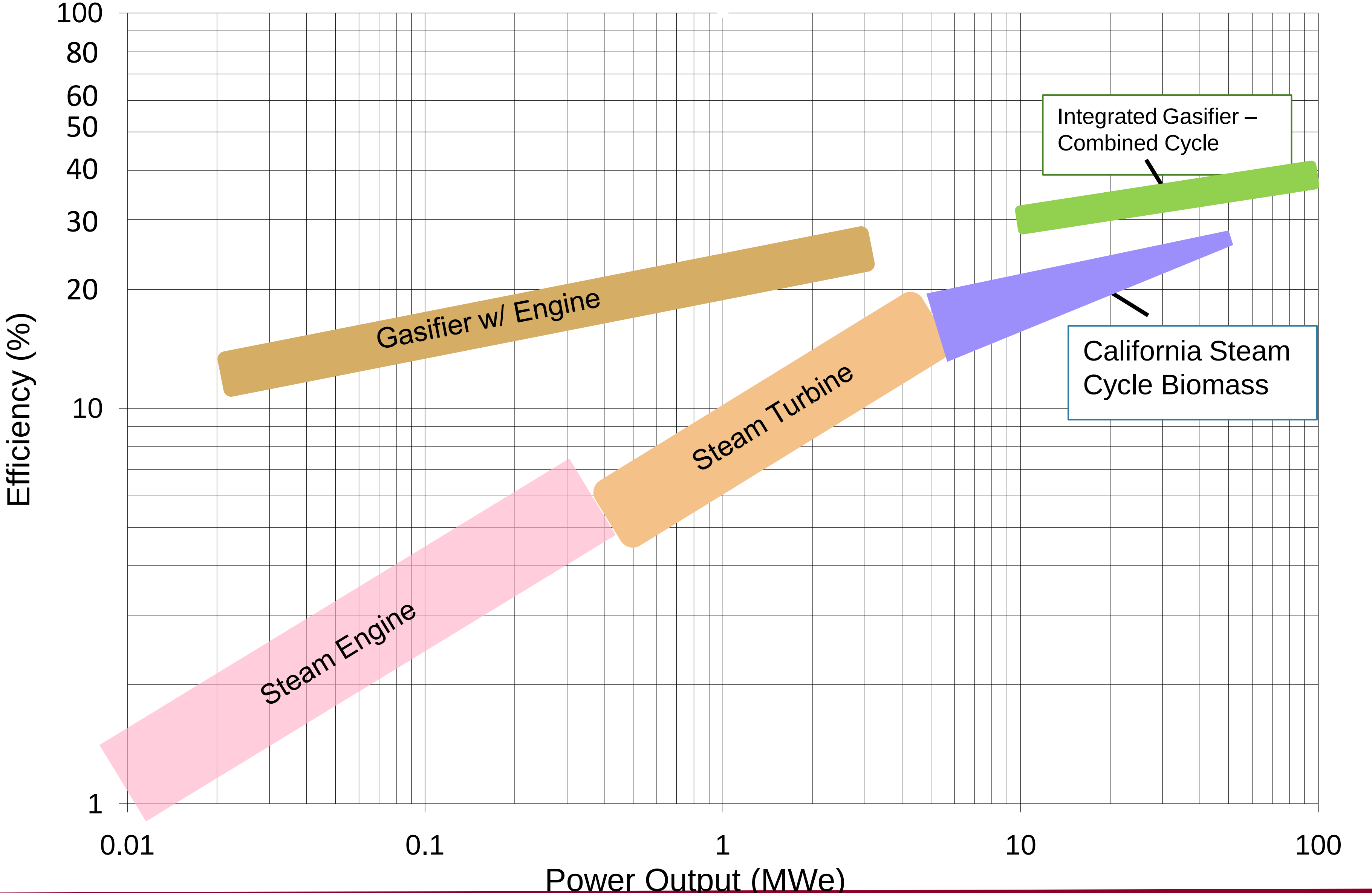
Gasification:

Fuel + Oxidant/Heat → **Fuel Gas (CO + H_2 + some hydrocarbon gas)**
+ Some combustion products (CO_2+H_2O+N_2)
+ Tar, PM, H2S, NH_3 + Other
+ Char/Ash & Heat

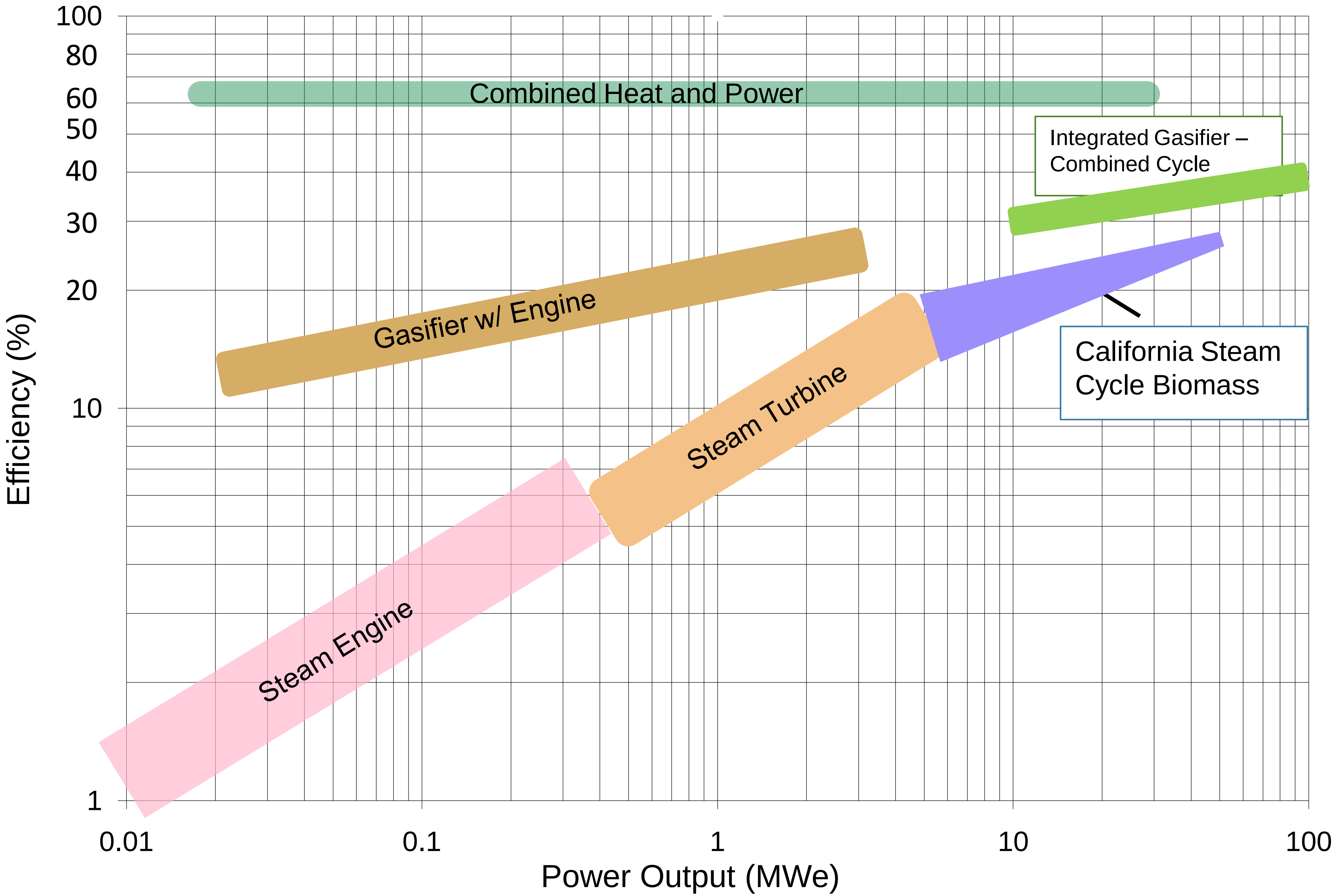
By "Partial Oxidation" (insufficient air) or indirect heat

Produces a combustible gas or Fuel Gas (a.k.a. producer gas, syngas)

Efficiency vs. Scale – Biomass Power



Efficiency vs. Scale – Biomass Power & Heat (CHP)



Typical Costs for Biopower Systems

	Capital Cost ($/kW)	Typical Size	Project Capital Cost
Combustion Boiler + Steam Turbine	2,500 – 4,000	20 MW	$55 – 80 million
Gasifier w/ Engine Generator	3,000 – 5,500	500 kW– 1 MW	$2 – 6 million
Small Steam Boiler and Turbine, combined heat & power (CHP)	5,000 – 7,000	1 MW (elect), 20 MMBtu/h steam	$6 – 8 million

Typical Costs for Biopower Systems

	Capital Cost ($/kW)	Typical Size	Project Capital Cost	Cost of Electricity (¢/kWh)
Combustion Boiler + Steam Turbine	2,500 – 4,000	20 MW	$55 – 80 million	9 - 12
Gasifier w/ Engine Generator	3,000 – 5,500	500 kW– 1 MW	$2 – 6 million	10 - 15
Small Steam Boiler and Turbine, combined heat & power (CHP)	5,000 – 7,000	1 MW (elect), 20 MMBtu/h steam	$6 – 8 million	< 10 possible if good price for heat

Gasification

Thermal Gasification*

Gasification - high temperature conversion of (usually solid) carbonaceous feedstocks into a gaseous fuel

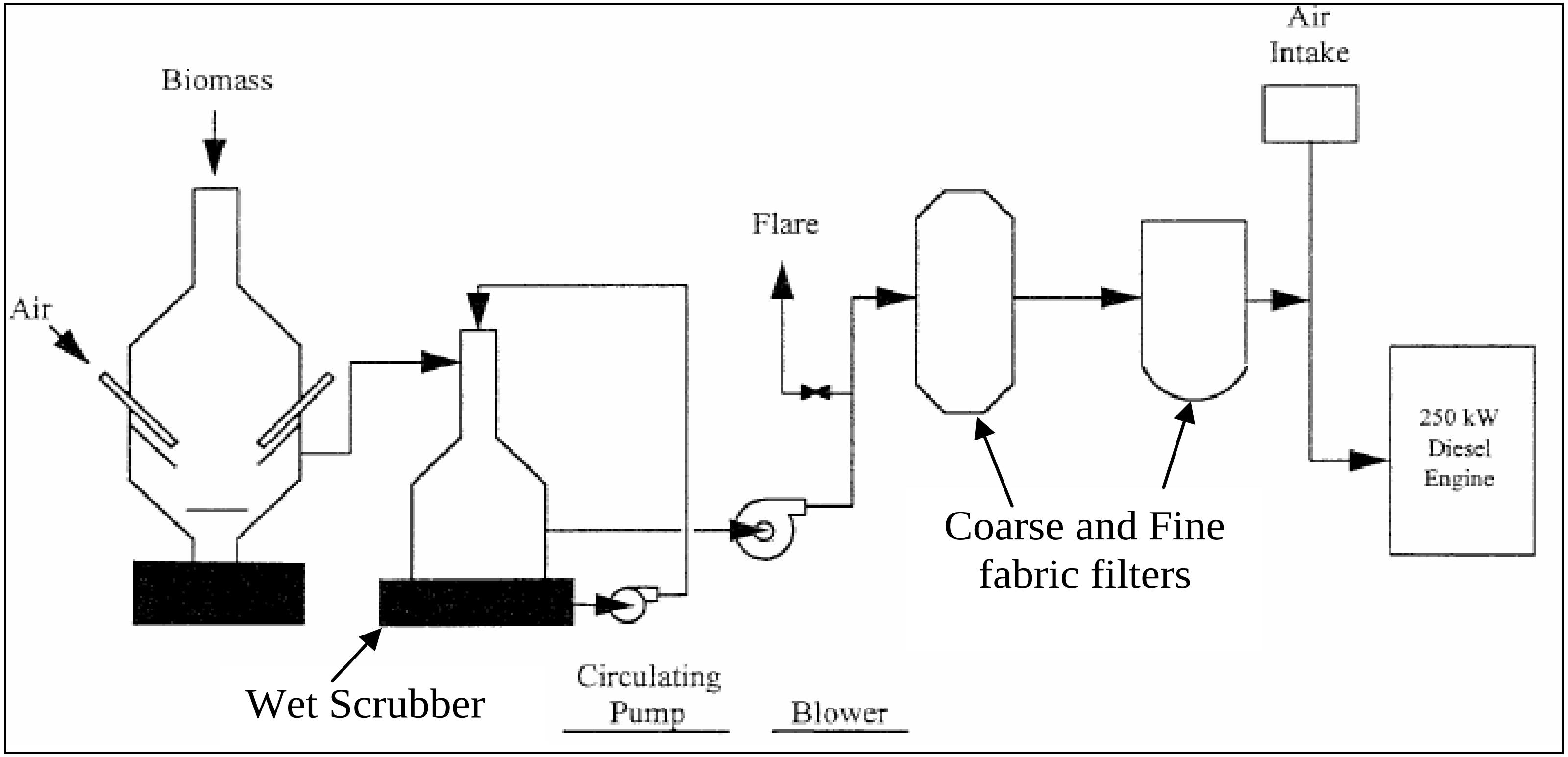
- **1300 – 2200 °F (700-1200 °C)**
- **Overall process is endothermic**
  - **Requires burning some of the fuel to provide heat for the process (i.e., partial oxidation)**
  - **Or heat is supplied to reaction from some external source / (indirect gasification)**

* “Bio-gasification is a term that usually means ‘making biogas from anaerobic digestion’

Advantages of Gasification

- **Offers better efficiency for small scale power generation than direct combustion systems**
  - **→ gas cleaning is primary concern and large expense.**
- **Potential for higher efficiency conversion using gas-turbine combined cycle at larger scale (compared to combustion-steam systems).**
- **Produces fuel gas for more versatile application in heat and power generation and chemical synthesis.**

A Typical Schematic

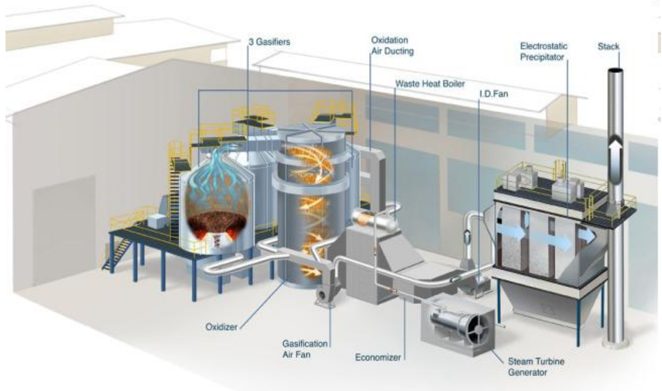


Ankur Downdraft –
Typical Schematic w/ Water Scrubbing of Producer Gas

Status of Gasification

Gasifiers for Heat, Power, and CHP are not new and are considered commercial in many places

- India, China, some developing nations
  - Low labor rates allow simple manual operation
  - Emissions (air and liquid) regulations may not be as strict as here
- Examples in Europe due to
  - Use of district heat, especially northern Europe
  - High energy prices & GHG policies allow (high feed-in tariffs, $ for RECs or carbon credits)
- Examples in US and Canada where economic (direct heat applications, some steam power systems, or grant funded demonstrations)



Nexterra Biomass Gasification System at Johnson Controls' University of South Carolina Cogeneration Project.

Status of Gasification

In California and much of US, economics are marginal

- **Air Emissions (especially NOx) are difficult to meet in large areas of California (San Joaquin Valley, LA basin)- NOx control adds expense, and may not even be achievable**

- **Labor costs lead to more automation and sophistication increasing capital costs**

Some Projects in California

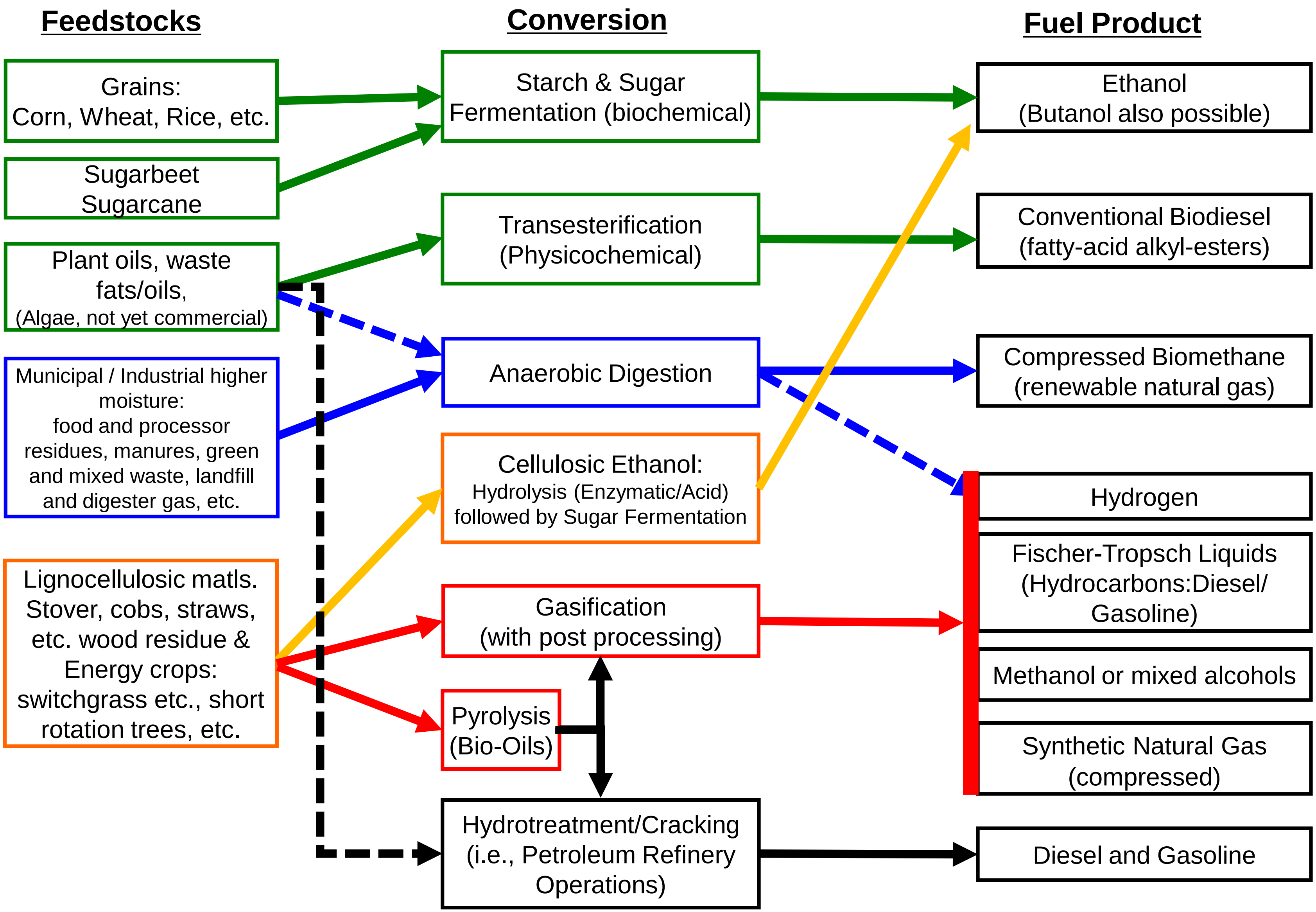
Name	Location	Type	Application	Comments
Phoenix Energy	Merced	Downdraft	Electricity (Engine)	Currently Commissioning: Wood pallets & orchard prunings; ~ 500 kW, Ankur gasifier derivative.
Community Power Corp.	Winters	Downdraft	Electricity (Engine)	50 kW Demo at Dixon Ridge Farms (walnut shell fuel) Several thousand hours of operation
Pro-Grow Nursery, Tom Jopson Owner	Etna	Downdraft	Burner fuel (+ engine generator)	Built - beginning final testing stages. Replace propane for greenhouse heating. Fluidyne gasifier (Doug Williams, New Zealand) ~ 100 kWe, TR Miles Consulting, UC Davis Bio.&Agr. Engr.
West Biofuels	Woodland	Dual Fluidized Bed (indirect gasifier)	Syngas to liquid + engine generator	5 ton/day, R&D (UC San Diego, Davis, Berkeley). Several Grants supporting work - commissioning
Sierra Energy	Sac.	Slagging Updraft	Syngas	Modified blast furnace – early development- lab/pilot scale
G4 Insights Inc	?	?	Reform to SNG	Recent $1.2 million grant from CEC. “Forest biomass to compressed biomethane”
Harvest Power/ Agnion	San Jose	Indirect- dual bed	Reform to SNG	Recent $1.9 million grant from CEC. “Urban wood waste to biomethane”
Humboldt State, UC Davis, Riverside, Berkeley, San Diego, Merced	Through-out CA	various	Fundamental & applied- heat, power, liquids	Various research efforts underway

Gasification Challenges

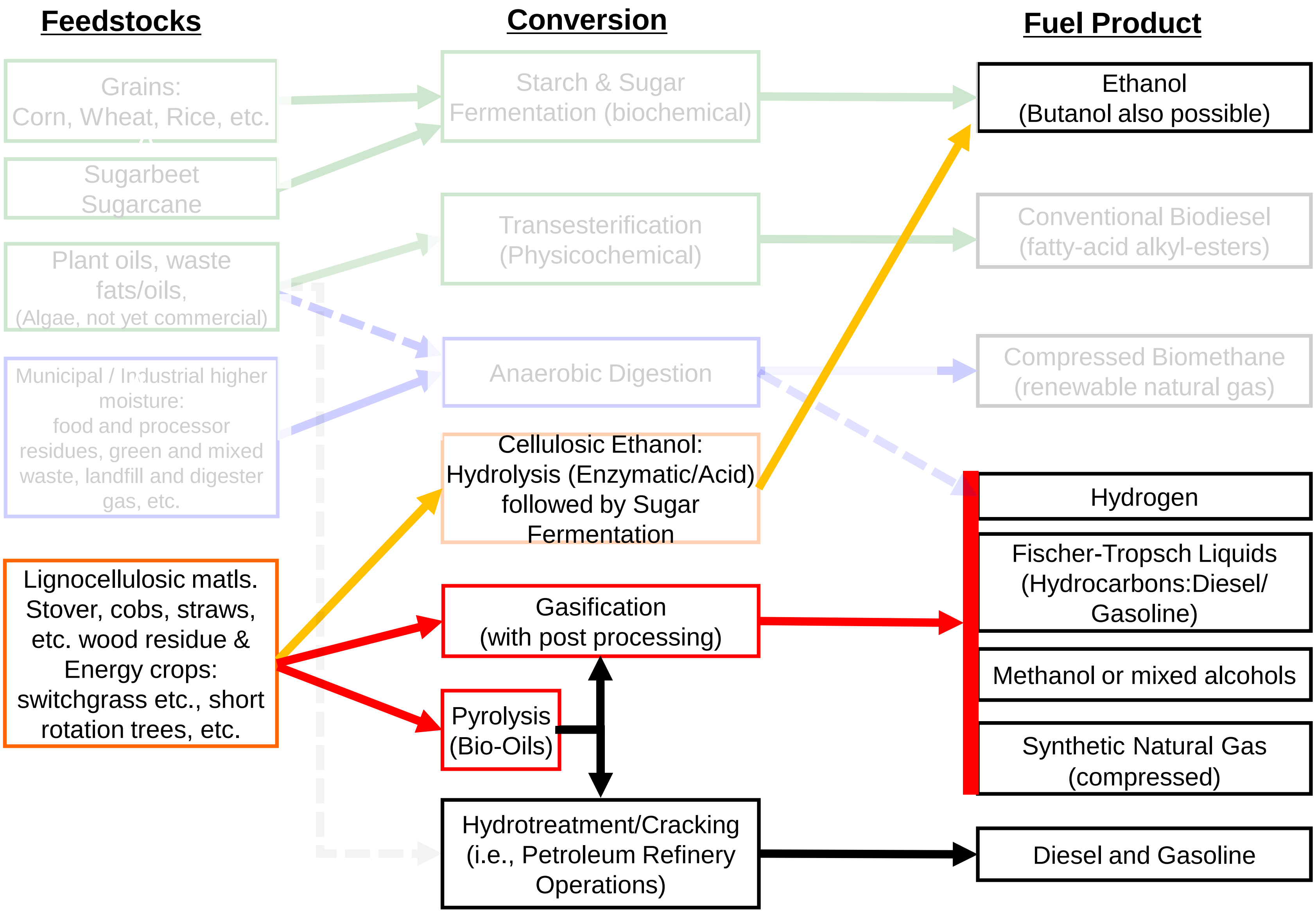
- Costs
- Gas cleaning and tar management required for use of fuel gas in engines, turbines, and fuel cells
  - For reciprocating engines, tar and particulate matter removal are primary concerns,
  - Gas needs to be cleaner for gas turbines, and cleaner still for fuel cells and chemical or fuels synthesis
- Fuel particle size and moisture are critical especially for downdraft gasifiers (most often used for small scale power using reciprocating engines)
- Air emissions requirements are challenging, especially in San Joaquin Valley
- Grid Connection can be difficult/expensive/time consuming – Depends on utility
- “Net metering” is unresolved for small biomass systems
- Few turn-key systems available (especially North America)

Biofuels

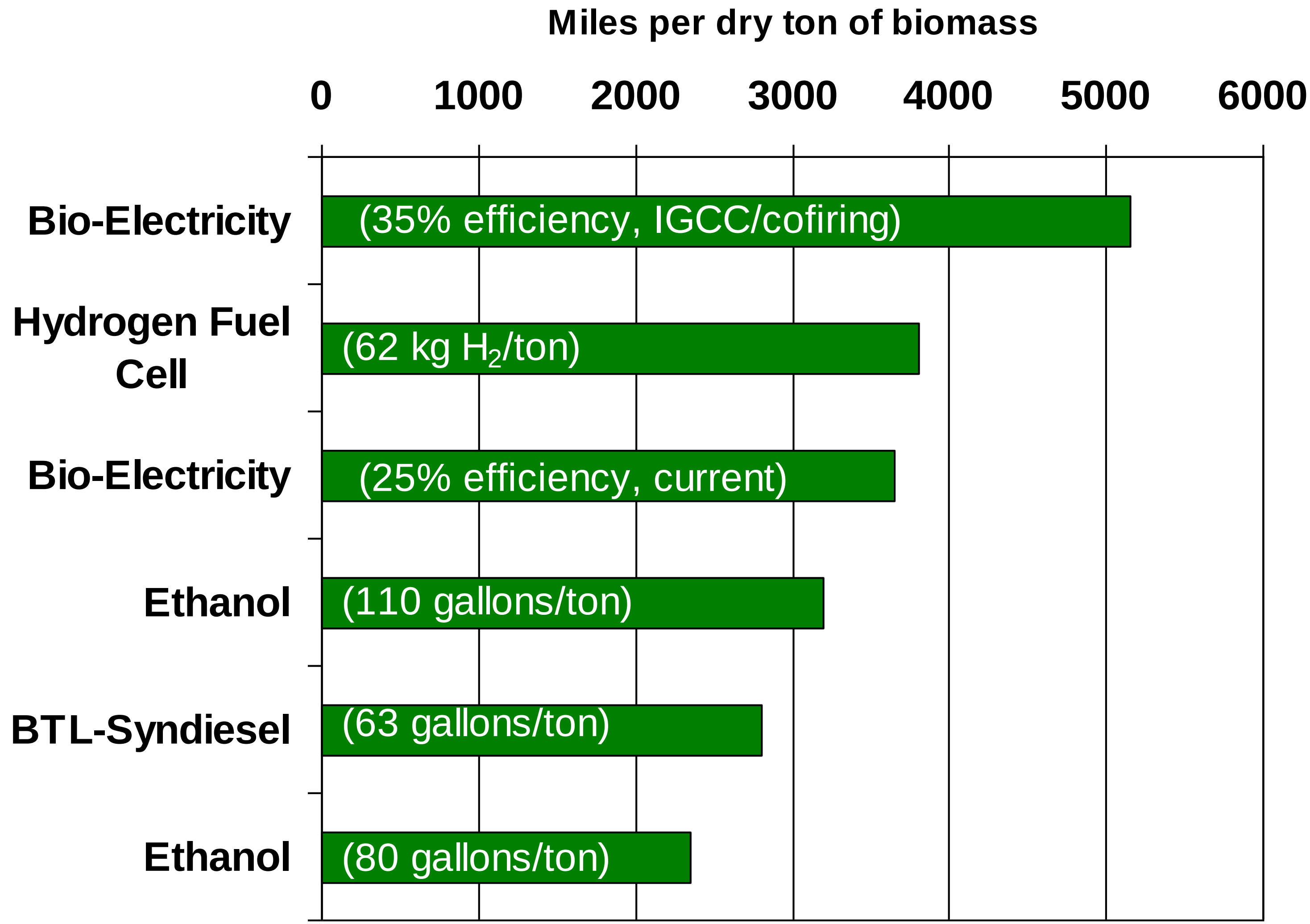
Biofuel Pathways



Biofuel Pathways



Miles Per Dry Ton Biomass (lignocellulosic)



Based on hybrid vehicle with 44 miles per gallon fuel economy on gasoline, 260 Wh/mile battery (source: B. Epstein, E2). Electricity includes generating efficiency, transmission, distribution, and battery charging losses. Ethanol, BTL-Syndiesel, and H_2 include fuel distribution transport energy.

Source: B.M. Jenkins

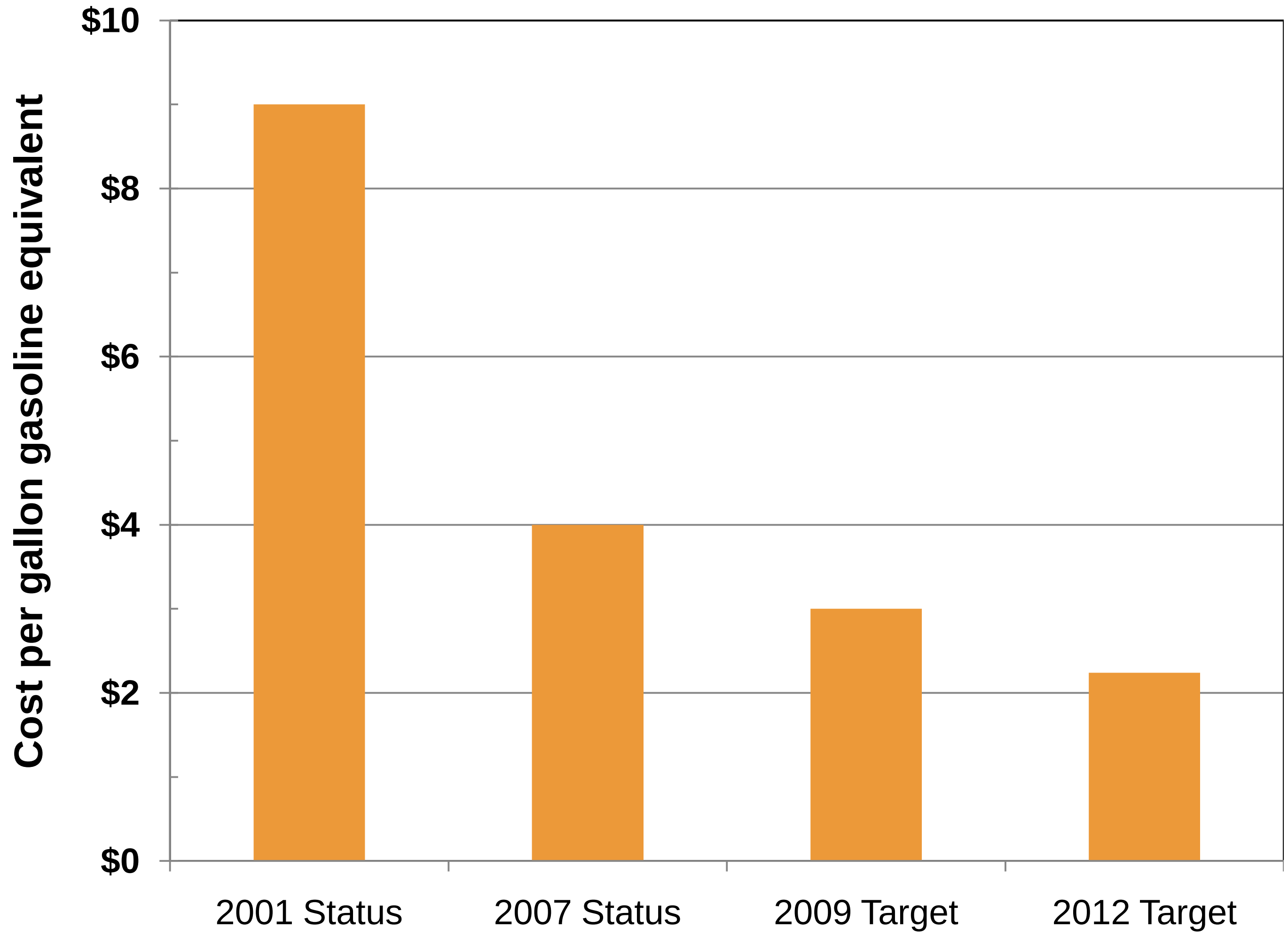
(Some) US Cellulosic Biofuel Projects under development

Company	Proposed Location	Method	Proposed Feedstocks	Proposed Capacity (MM gpy)
Abengoa Bioenergy	Kansas	Combined Thermo- and Biochemical	Stover, straws, switchgrass, other	11.4
Abengoa Bioenergy	Nebraska	Biochemical	Stover, straws, switchgrass, other	11.5
AE Biofuels	Montana	Enzymatic Hydrolysis - Fermentation	Switchgrass, seed, straw, stover	small scale
BlueFire	Mississippi	Concentrated Acid- then Fermentation	Sorted green and wood waste	19
BlueFire	California	Concentrated Acid- then Fermentation	Sorted green and wood waste	3.1
Coskata	PA	Fermentation	Biomass, MSW, Ag residue	(40 thousand gpy)
Dupont	TN	Enzymatic Hydrolysis - then fermentation	Switchgrass, stover, corn cobs	(250 thousand gpy)
Ecofin, LLC	Kentucky	Altech solid state fermentation	Corn cobs	1.3
Fulcrum Bioenergy	Nevada	Gasification / catalytic upgrade	MSW	?
G4 Insights Inc.	Canada / California	Gasification to Synthetic Natural Gas (SNG)	Woody residues	Small demo
Harvest Power/ Agnion	California / Europe	Gasification to SNG	Urban wood waste , maybe biosolids	Small demo
ICM	Missouri	Enzymatic Hydrolysis - Fermentation	Switchgrass, forage, sorghum, stover	0.5
Lignol Innovations	Colorado	biochem - organosolve	Woody biomass, ag. residues, hard and soft woods	2.5
Mascoma	New York	Enzymatic	Switchgrass, paper sludge, wood	5
New Planet Energy	Florida	Gaddy - BRI (gasification, ferment syngas	MSW, demolition debri, green waste	8-100
New Page	Wisconsin	Black Liquor gasification -to - liquid	woody biomass , mill residues	5.5
Pacific Ethanol	Oregon	Enzymatic - then fermentation	wheat straw, stover, poplar residues	2.7
POET	Iowa	Enzymatic - then fermentation	corn fiber, cobs, and stover	31
Range Fuels (Announces some methanol produced – in startup- Aug, '10)	Georgia	Gasification / catalytic upgrade	Purpose grown trees and forest wood wastes	20
Rentech	California, Mississippi	Gasification / catalytic upgrade	MSW, demolition debri, green waste	10
West Biofuels	California	Gasification / catalytic upgrade	Woody biomass, agr. and urban residues	(100 thousand gpy)
Zeachem	Oregon		Poplar, sugar and wood chips	1.54

California Air Resources Board – LCFS various reports- see: http://www.arb.ca.gov/fuels/lcfs/lcfs.htm

DOE Cellulosic Ethanol Cost Targets

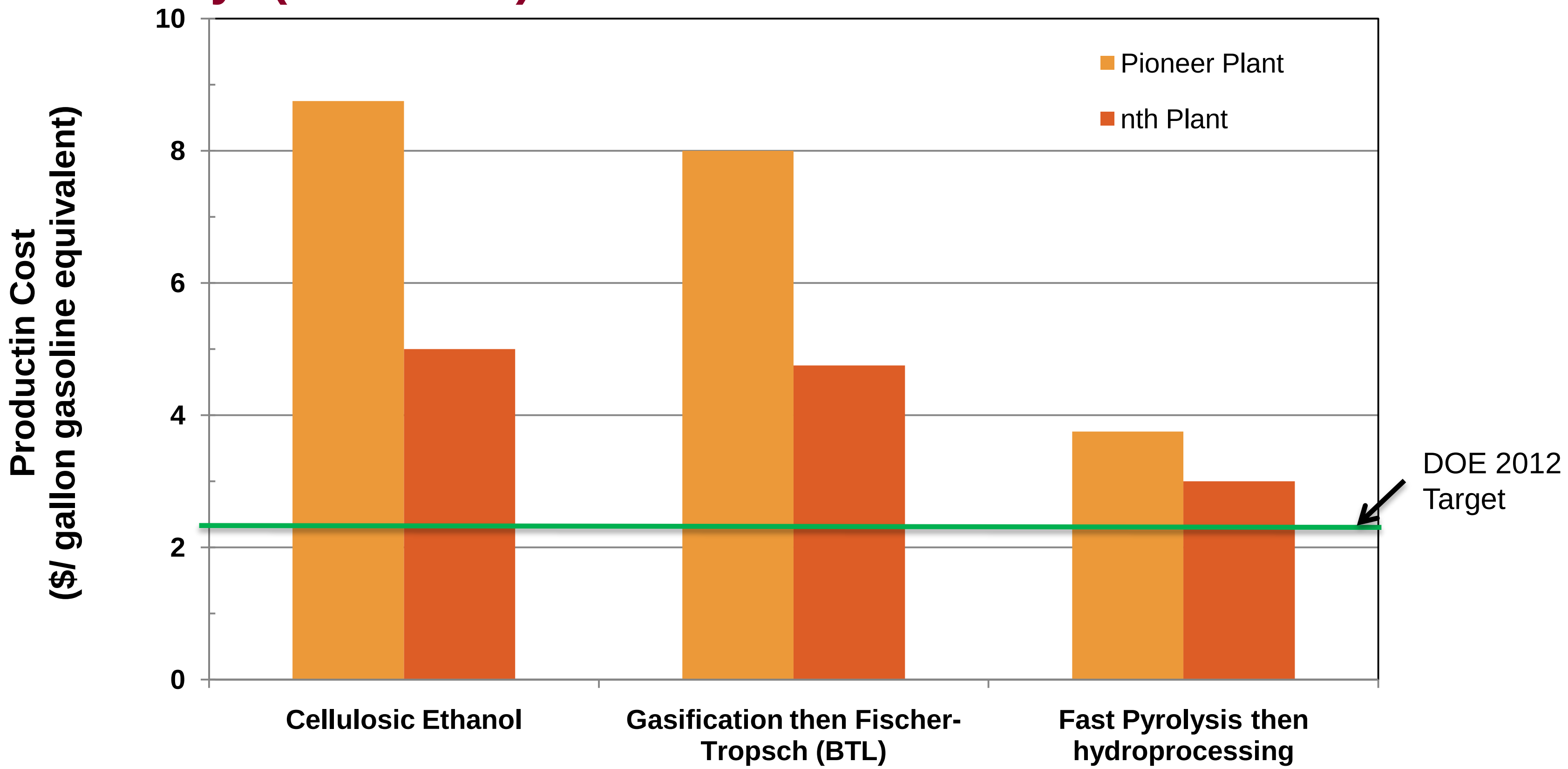
($/gallon of gasoline equivalent)



Source: DOE EERE Office of the Biomass Program (2008), Multi-year Program Plan, App. C

Estimates Cost of Production for near-term Biomass-to-liquid fuels advanced technology

A New Study* (Nov. 2010)



Assumptions

- Corn Stover
- 2200 BDT per day feedstock (~725,000 BDT/year)
- $75/BDT feedstock gate price
- ~37 MM gallons gasoline equivalent (gge) per year

Near-term Assumptions by technology	Capital ($MM)	Yield (gal/BDT)	Yield (gge/BDT)
Cellulosic Ethanol	390	68	45
Gasification then Fischer-Tropsch (BTL)	560	49	53
Fast Pyrolysis then hydroprocessing	280	49	53

** Source; Anex, RP et al., 2010 (Iowa State, NREL & ConocoPhillips)*

Summary
Lignocellulosic Biofuels

- Potential to use wide range of woody and fibrous "non-food" biomass feedstocks
  - Includes residues and potential high-yield energy crops
- Should have much lower life-cycle carbon emissions compared to fossil fuels and corn-ethanol
- Not yet commercial
- Production costs for 'near term' (5-8 years) are \$3- \$5 per gallon-gasoline-equivalent
- Likely to be:
- Large scale ~ 2200 dry tons per day biomass
  - (like a 90 MW biomass power plant)
- Large Capital Cost -> \$300 – 550 million per facility

Thank You

Rob Williams

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8, 9 December 2010. Modesto, CA

Energy Efficiency

Tom Wilson, Pacific Gas & Electric

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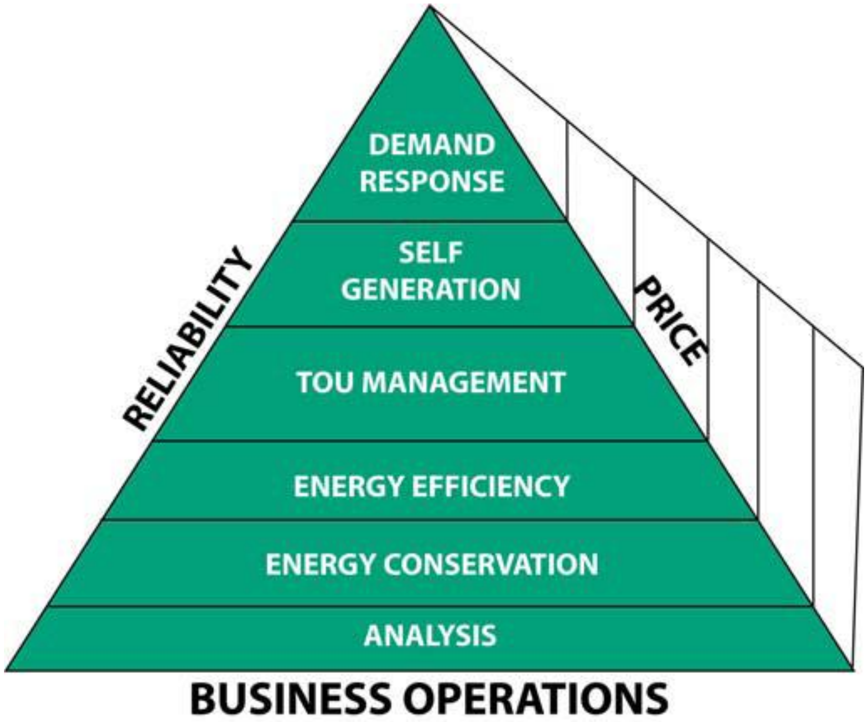
Energy Management

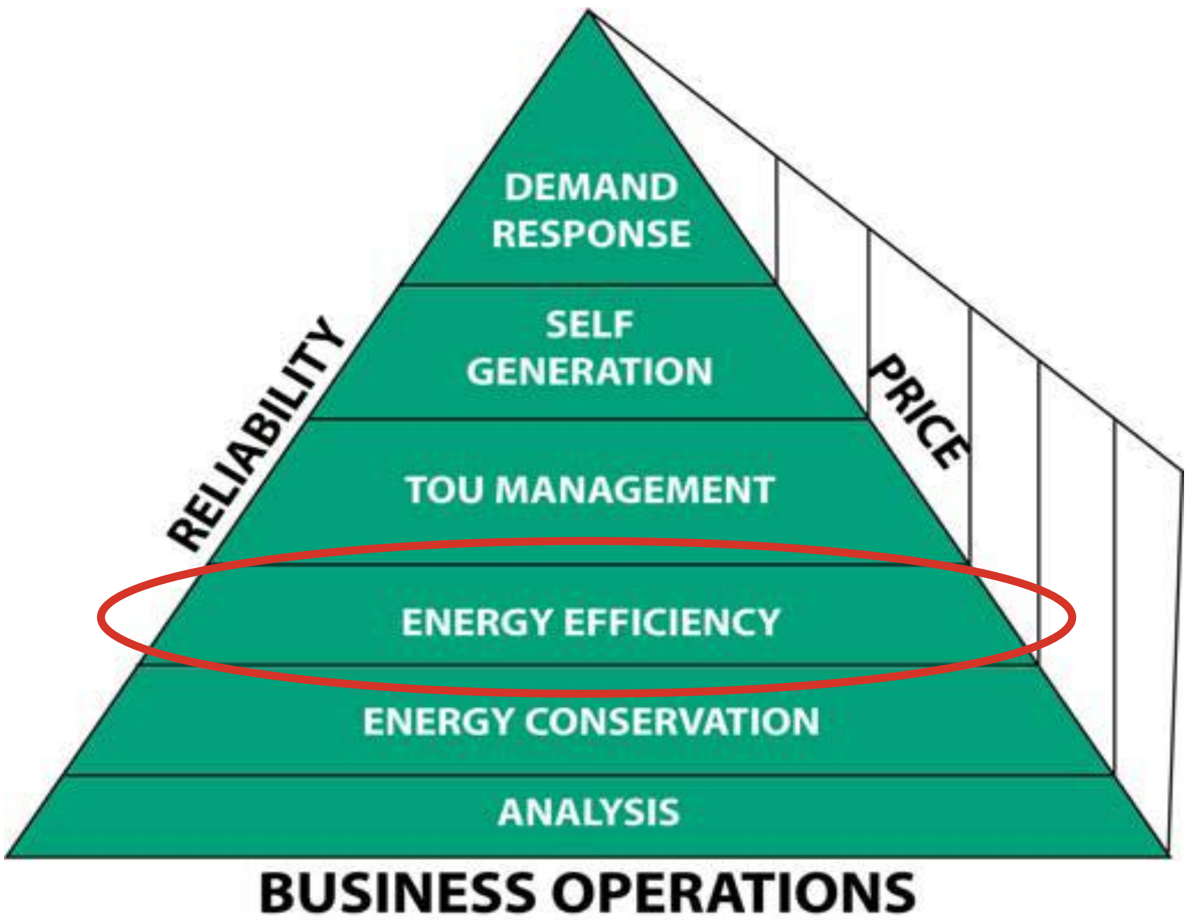
Energy Efficiency

Renewable Generation

Real-time Pricing



Energy Efficiency



Energy Efficiency

The Big Idea

- **Less $$ to reduce demand than expand capacity**

Funding

- **Public Purpose Program Surcharge**
  - **~3% of bill**

EE - Program Types

Rebate

- Prescriptive
  - Fixed $$/widget
- Can submit after project completion

Incentive

- Customized
  - Payment based on savings/year
  - Fixed rate by technology/fuel type
- Must contact PG&E prior to project implementation

Irrigation Rebates

Low Pressure Sprinkler Nozzles

- $1.15/nozzle

Sprinkler to Drip Conversion

- $44/acre

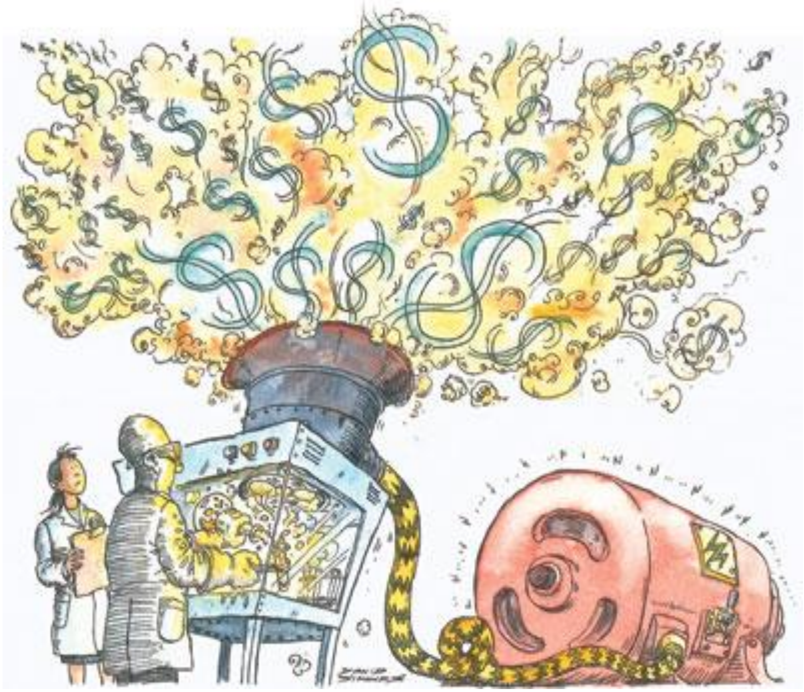
Incentive Rates

Electricity

- Lighting - $0.05/kWh
- Process - $0.09/kWh
- Refrigeration (compressor)
  - $0.15/kWh

Gas

- $1.00/therm



Betteravia Farms – Well Pump VFD

125 HP well pump

- Throttled control
- Rated output – 1400 GPM
- Avg output – 800 GPM

Incentive

- $9,375
- Limited by 50% project cost

Annual Savings

- $6,460
- 33% ROI

Superior Almond Hulling – Pre-cleaner

- Dirt limited pre-cleaner throughput
- Pre-cleaner added
- Improved productivity
  - kWh/ton meat

Superior Almond Hulling – Pre-cleaner

Electricity savings

- 153,266 kWh/y
- 82 kW

Cost Savings

- $21,457/y

Incentive

- $21,994

Hilltop Ranch – Air Compressor

Baseline System

- **2 - 100 HP modulating compressors**

Installed System

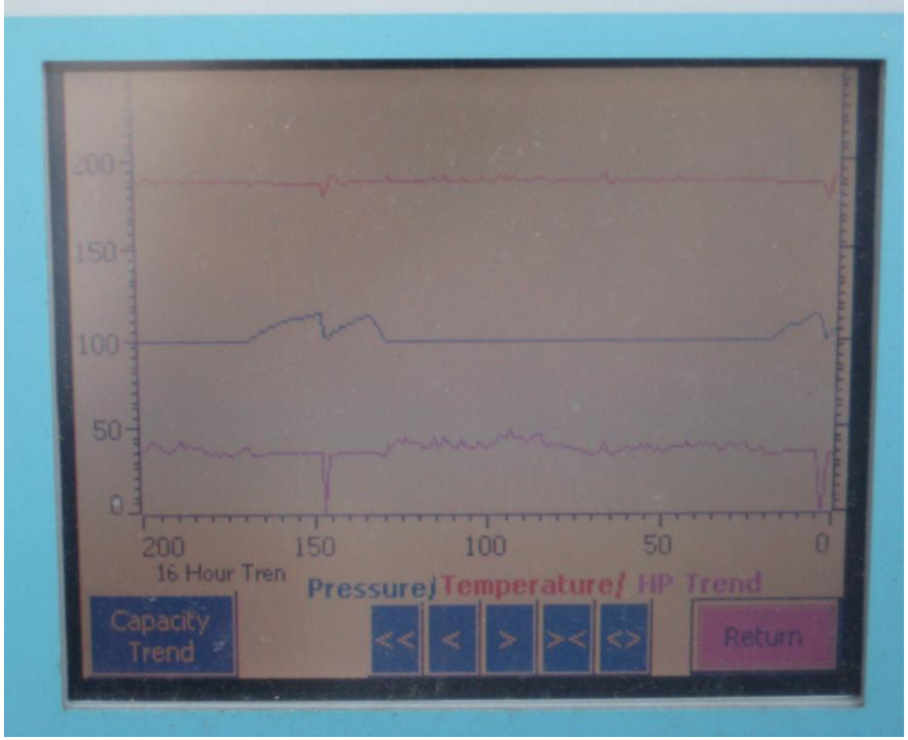
- **150 HP compressor w/VFD**

Electricity Savings

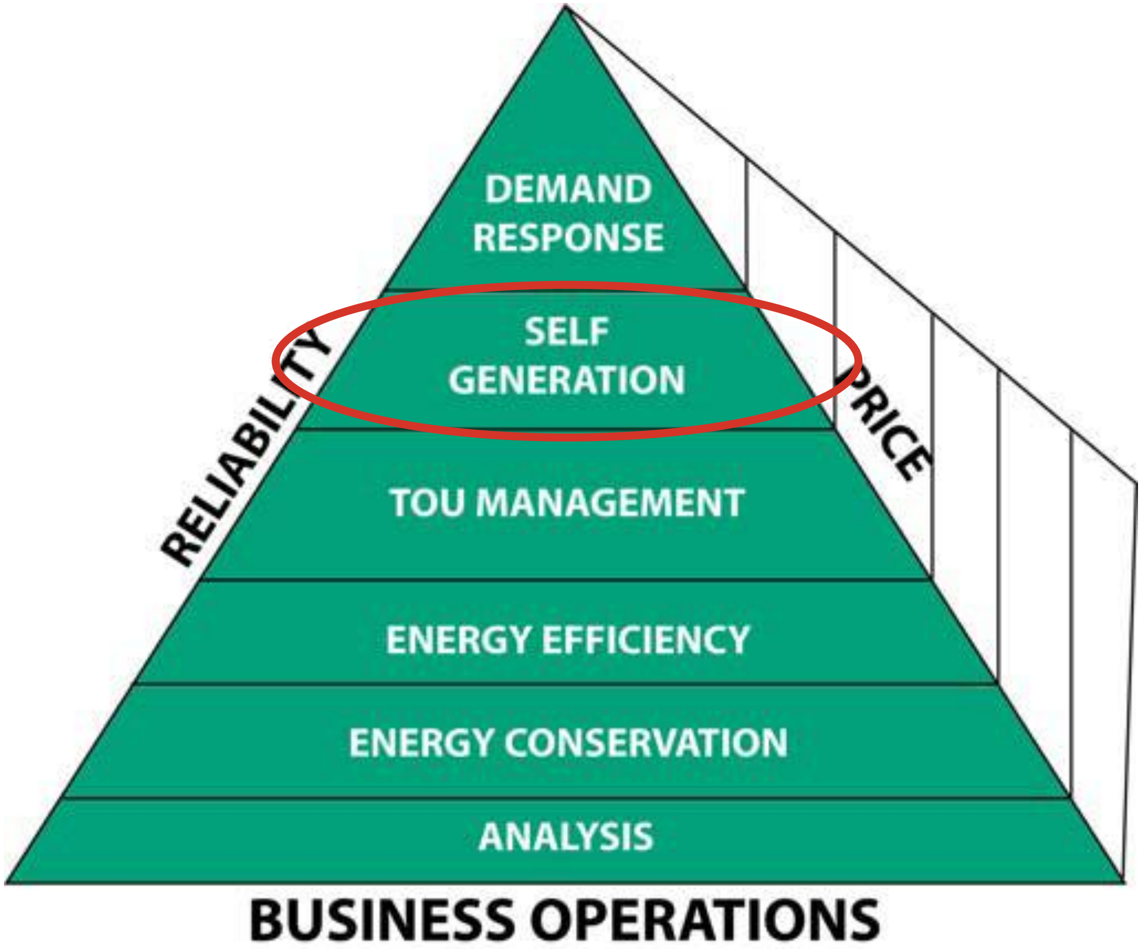
- **135,078 kWh/y**
- **$14,860/y**

Incentive

- **$14,670**
  - **30% ROI**



Renewable Generation



Renewable Generation

- **California Solar Initiative**
  - **http://www.pge.com/mybusiness/energysavingsrebates/solar/csi/index.shtml**
- **Small Renewable Generation (E-SRG) Rate Tariff**
  - **http://www.pge.com/feedintariffs/**

Solar Incentives

- CSI - Tiered Incentive Structure
  - Production-based - $0.05/kWh
  - In addition to offset electricity
- Other funding streams
  - Federal ITC/PTC
  - USDA/NRCS grants
  - Market based incentives
    - RECs
    - CAR offsets

Hilltop Ranch

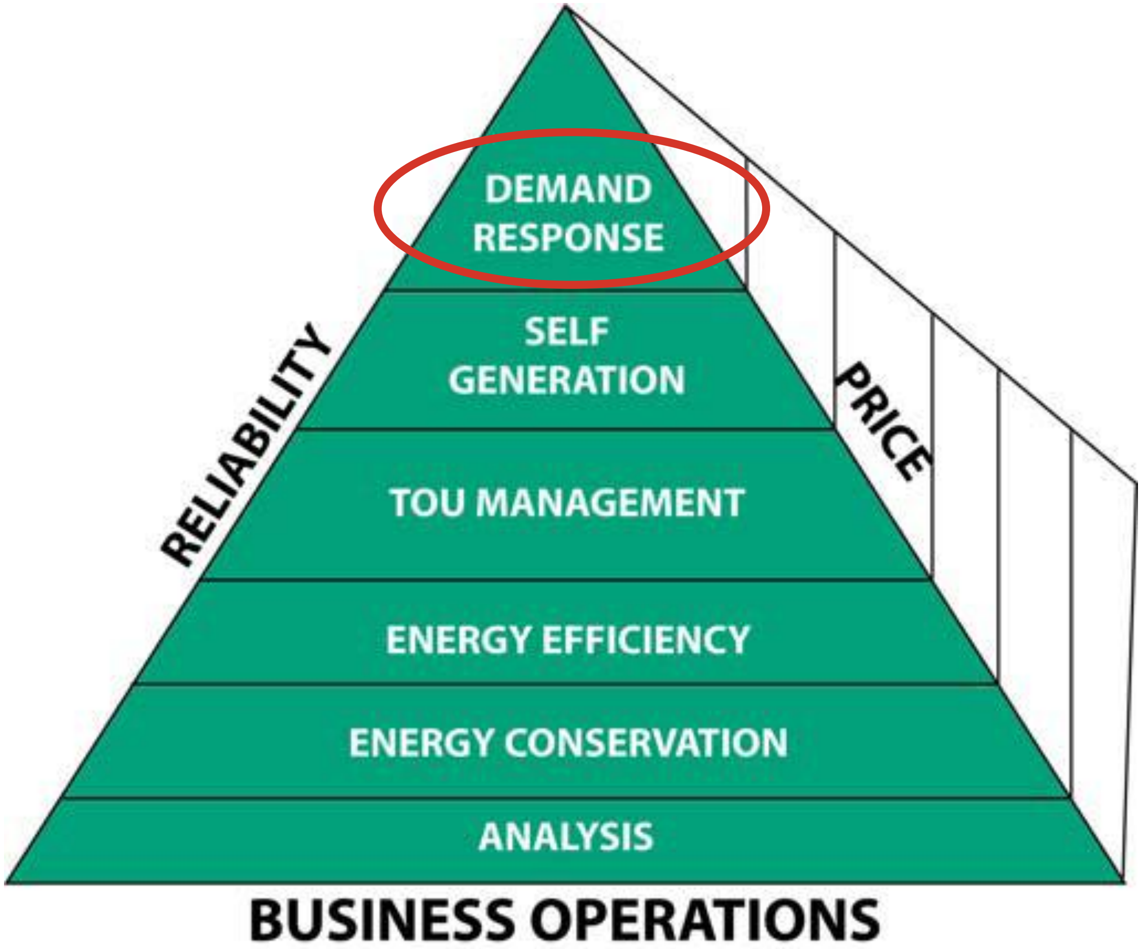
- **Solar PV Installation**
  - **0.5 MW**
  - **~5 ac**

- **Project Highlights**
  - **$3.7 million project**
  - **$0.15/kWh payment**
  - **$26,000/mo value**
  - **7 year payback**

Renewable Generation

- Small Renewable Generation (E-SRG) Rate Tariff
  - Wide range of technologies (biomass – tidal)
- Power Purchase Agreement (PPA)
  - ~$0.11/kWh for electricity sold to the grid
  - REC ownership depends on user

Peak Day Pricing (PDP)



Peak Day Pricing (PDP)

- **Key dates**
  - **Feb 1, 2011**
    - **Large Ag customer default**
  - **Feb 1, 2012**
    - **Small Ag customer default**
- **“Default”**
  - **Must make active decision *not to participate***

PDP Event Days

System-wide Event Days could be triggered by:

- The average temperatures of 5 locations at or above 98° on weekdays or 105° on weekends & holidays; or
- California ISO declares emergency conditions; or
- Extremely high market prices

Temperature trigger can be modified to allow at least 9 and no more than 15 events to be called for the year

PDP Event Days

- Event days
  - Peak period rate = normal rate + $1.00/kWh
- 9 to 15 days/year
- Receive credits for remainder of summer period
- Risk free – losers reimbursed after first year

PDP Credits

AG 5C Rate Schedule

Schedule AG5C – TOU		
	Summer	**Winter**
	--	--
Demand	**$12.68**	--
$/kW	**$2.60**	**$0.56**
	$4.29	**$2.86**
Energy	**$0.12708**	--
$/kWh	**$0.08453**	**$0.07343**
	$0.06867	**$0.06621**

PDP Charges/Credits		
	Summer	**Winter**
Demand	**-$4.53**	--
$/kW	**-$0.86**	--
	--	-
Energy	--	--
$/kWh	--	--
	--	--

Schedule AG 5C – PDP		
	Summer	**Winter**
Demand	**$8.15**	--
$/kW	**$1.74**	**$0.56**
	$4.29	**$2.86**
Energy	**$0.12708**	--
$/kWh	**$0.08453**	**$0.07343**
	$0.06867	**$0.06621**

PDP Summary

- PDP could have a large impact on your summer electric bills
- Contact your account representative to evaluate options

Thank You

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559.263.5513

Saving Green by Going Green

Mandi McKay, Sierra Nevada Brewing Company

growing ADVANTAGE
Leadership through Research
2010
38th Annual Almond Industry Conference

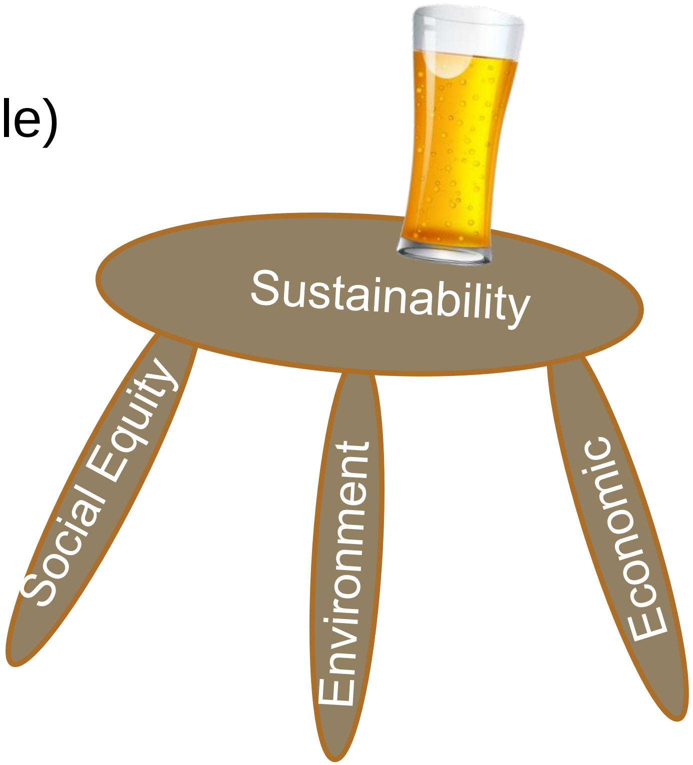
Sierra Nevada, 1980

Sierra Nevada, 2010

SNBC Definition of Sustainability

CAN SNBC CONTINUE TO OPERATE WITHOUT A NEGATIVE ENVIRONMENTAL IMPACT FOR GENERATIONS TO COME?

- Leave a small footprint
- Maintain early values
- Think LONG TERM (cradle to cradle)
- Close all loops
- Triple bottom line



Fuel Cells

Co-generation, 1.2 MW

Solar

Energy Efficiency

Heat Recovery
- Fuel Cells
- Boilers
- Kettles
- Heat Exchangers

Lighting

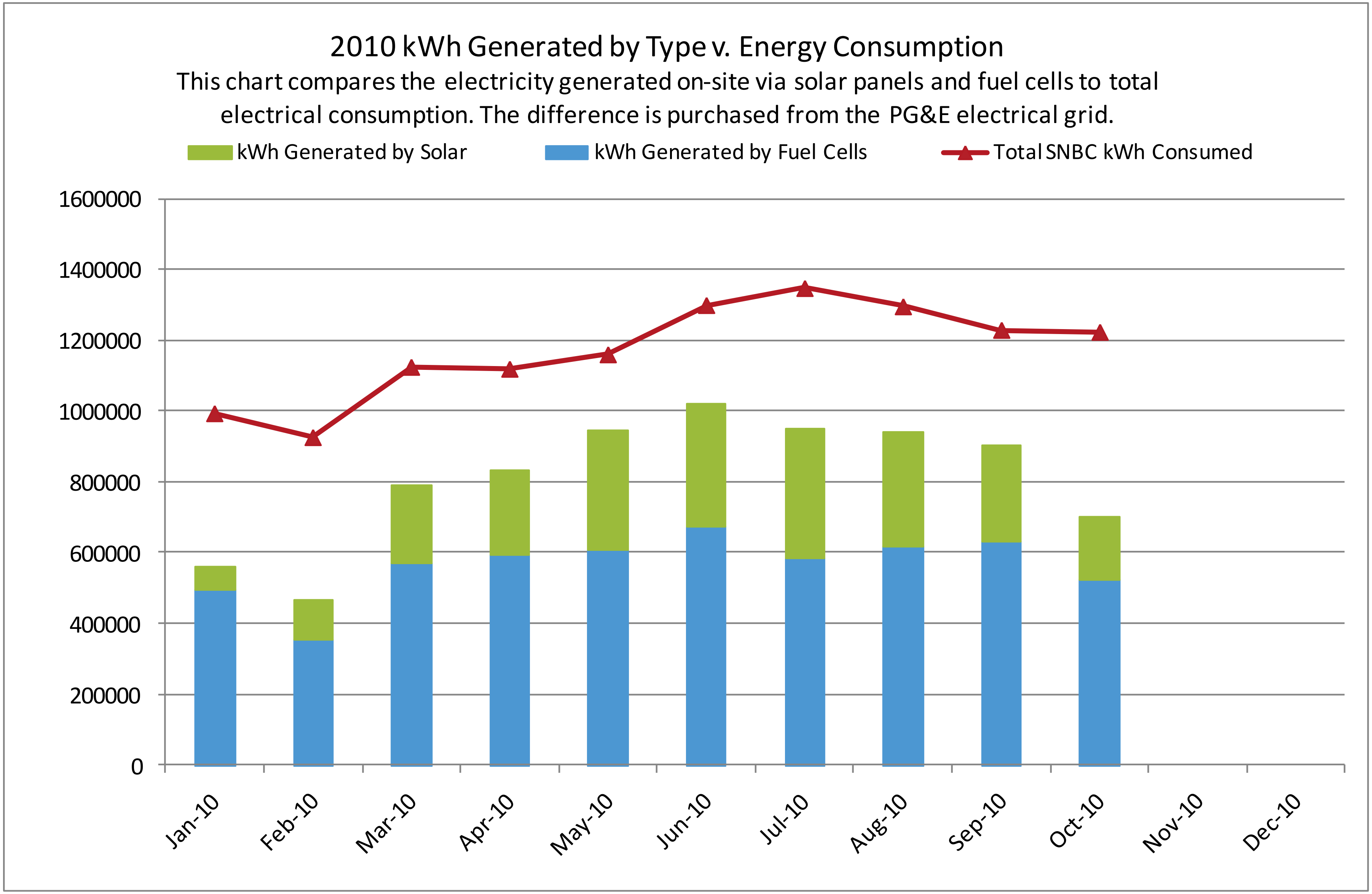
Electronics

Appliances

Monitoring

Behaviors

Monitoring/Tracking



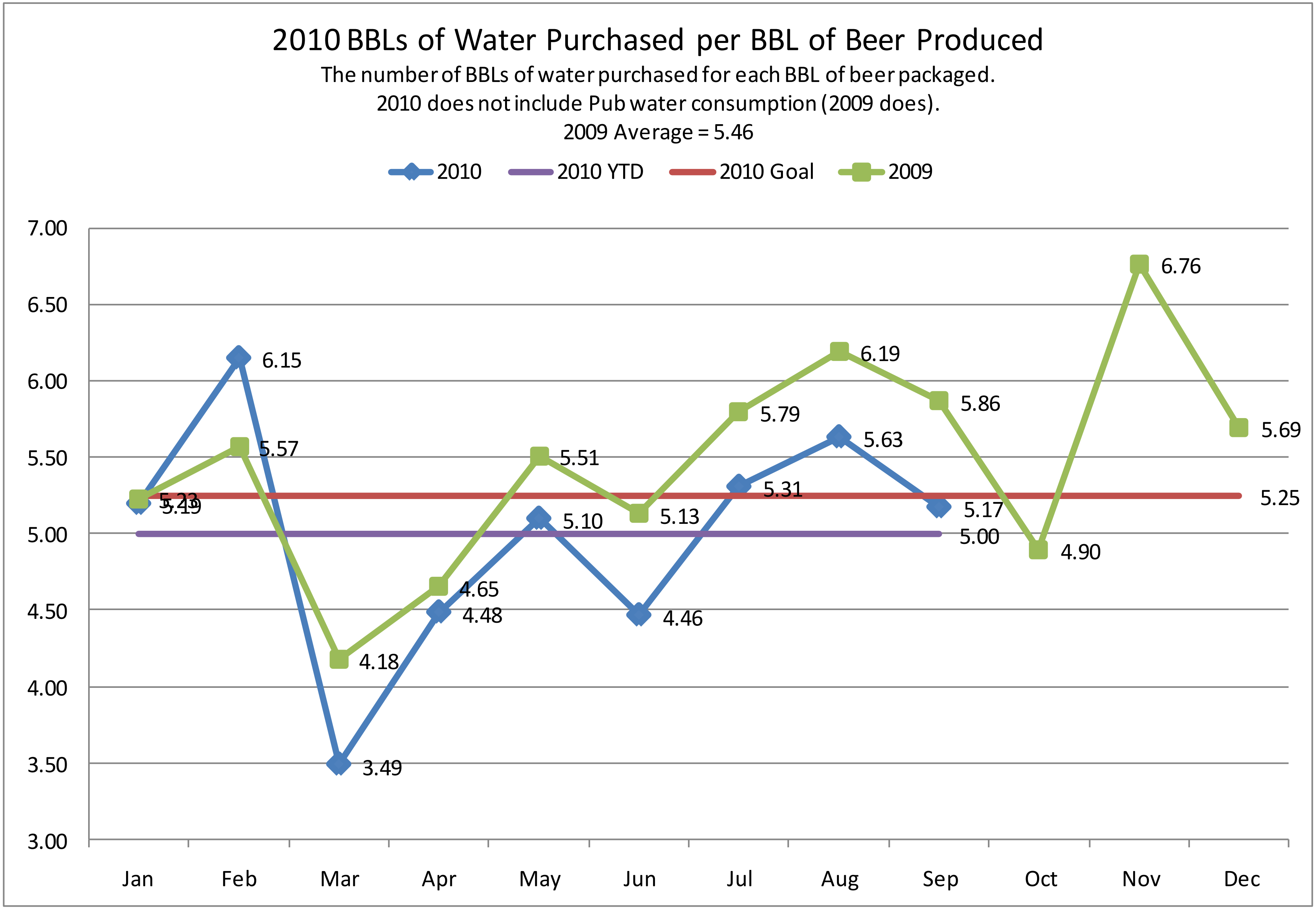
Water Conservation

- Automated CIP Systems
- Scheduling
- Flow Meters
- Dry Lube Switch

- Water Treatment Facility

- Hose Bib Retrofits
- Behaviors

Tracking/Monitoring



Water Recycling

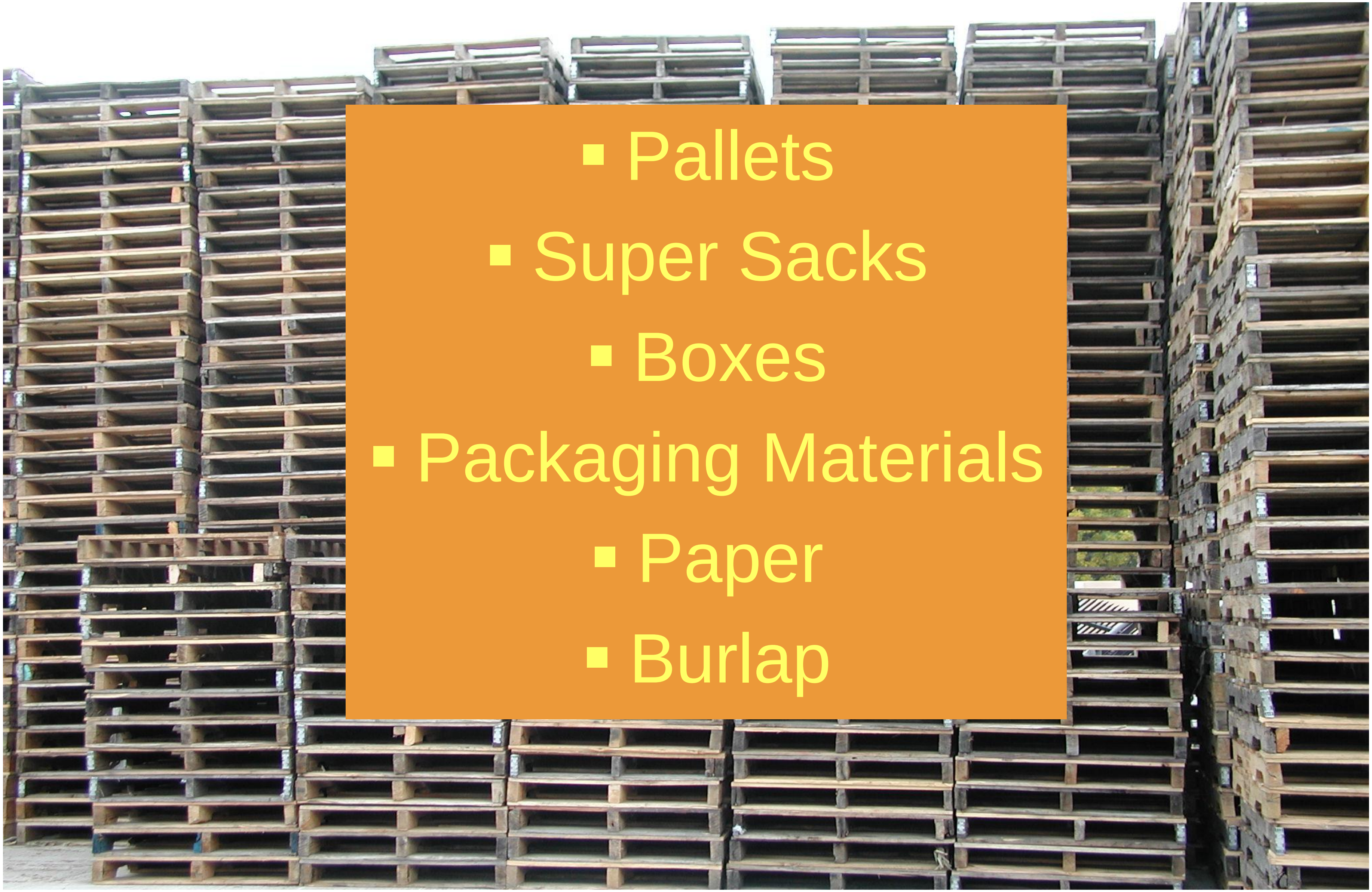
Hop Field Irrigation

Rinse Water Recovery

2009 Waste Diversion

- >30,000 tons diverted through composting, recycling, & reuse
- Only 160 tons to landfill = **99.5%** diversion rate!
- Avoided ~ $4 mil in waste hauler charges
- $850,000 in revenue

Reuse Water



- Pallets
- Super Sacks
- Boxes
- Packaging Materials
- Paper
- Burlap

Byproduct Recycling

Traditional Recycling

- Glass
- Cans & Bottles
- Cardboard
- Shrink Wrap
- Paper-White & Mixed
- Plastic Strapping
- Packaging Material
- Batteries
- Light bulbs
- Computers
- Scrap Metal & Wire
- Construction debris

Composting - HotRot

- 2.5 ton/day capacity
- ~ 0.5 ton/day discharge
- 9 acre hops field, 32 acre barley field, & 2 acre restaurant garden

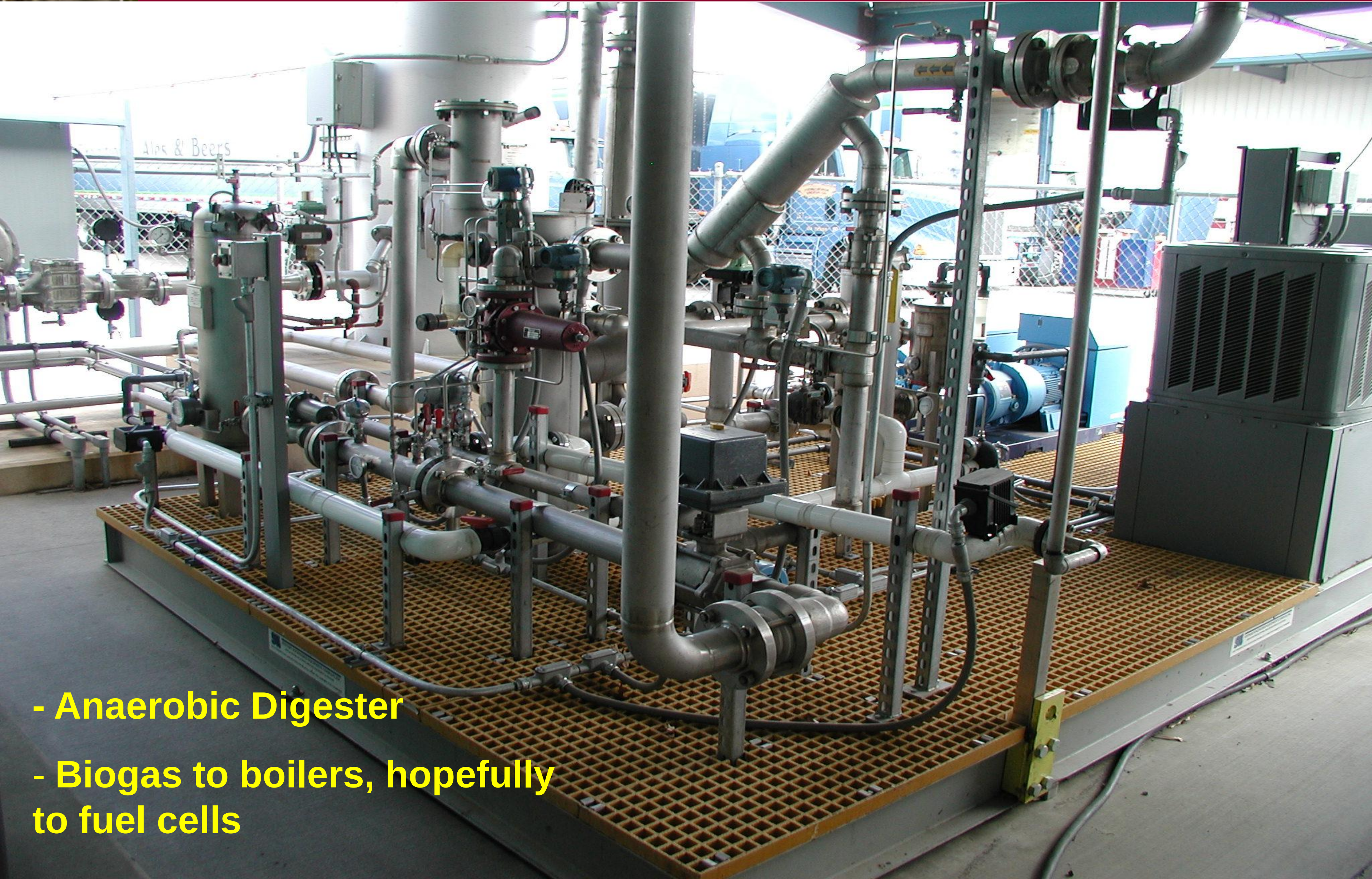

ELECTRIC VEHICLE
CHARGING STATIONS


Rail
GACX 14081


BioPro 190
SIERRA NEVADA

CO2 Recovery

Biogas Recovery / Reuse



- Anaerobic Digester
- Biogas to boilers, hopefully to fuel cells

Social Sustainability / Education

- Littlefoot Daycare
- Physicians Assistance
- H.O.P. Program
- Employee Garden Area

SIERRA NEVADA H.O.P. HEALTH OPPORTUNITY PROGRAM

Littlefoot Daycare Inc.

Questions / Comments?

Thank You

Wrap-Up, Discussion and Q&A

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