

The Design, Implementation and Outcome of the Agricultural Peak Load Reduction Program

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Background

- Electricity Prices Increase 40%
- Supply Shortages and Rolling Black-outs
- Senate Meets in emergency session to draft SB 5x to respond to supply shortage
- Peak Load Reduction Programs Funded for:
 - Homeowners
 - Businesses
 - Public Sector (schools, hospitals...)
 - Agriculture

Program Description

- Grants to ag industry to install hardware to promote efficiency for peak period load reduction
- "Peak Period" = 12-6pm; M-F; June-September
- Retroactive payments available
- Project must be operational by May 31, 2002
- Load reduction commitment through March 31, 2004

Target Projects

- **Category 1:** High Efficiency Electrical Equipment/Other Overall Electricity Conservation Efforts
- **Category 2:** Pump Efficiency Testing and Retrofit/Repair
- **Category 3:** Advanced Metering and Telemetry
- **Category 4:** Retrofit of Natural Gas-powered equipment to alternative fuels

Eligibility

- Water Agencies and Irrigation Districts
- Farms
- Dairies and confined animal feeding operations
- Greenhouses/nurseries
- Food Processors and Handlers
- Cold Storage and/or Refrigerated Warehouses for agricultural commodities

Not Eligible

- California Investor Owned Utilities
- Projects already funded under Public Goods Charge Fund
- Actions to alter staffing, generation or co-generation plants
- Maintenance programs
- New Construction
- Fuel Switching Programs

Challenges

- Short Time Frame for Implementation
- Basis for Determining current vs peak load
- Measuring Use during Peak Load
- Verification of Reductions

Implementation

- Announced on June 1st
- Program Description
- Application size and detail

Participation

	Submitted	Accepted	In Review
Total Projects	193	106	41
C1: Eq Eff	90	40	29
C2: Pump Test	39	19	12
C3: Telemetry	12	11	0
C4: Gas Alt	52	36	0

	% Projects	% Grants
C1: Eq Eff	38%	13%
C2: Pump Test	18%	4%
C3: Telemetry	10%	6%
C4: Gas Alt	34%	77%

Participation: Who

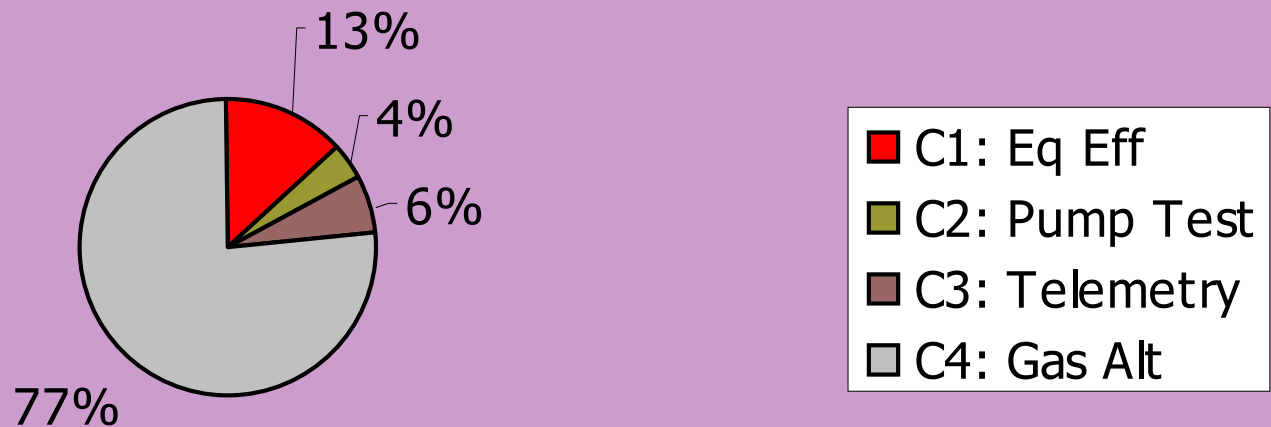
- Cotton Industry
- Produce Growers
- Nut growers and processors
- Wine Industry
- Packers
- Value Added Industry
- Livestock
- Dairy
- Nursery

Outcomes

- Overview of results
- Grants by Category
- Grants by Sector
- kW Reduced by Category
- kW Reduced by Sector
- \$/kW Reduced

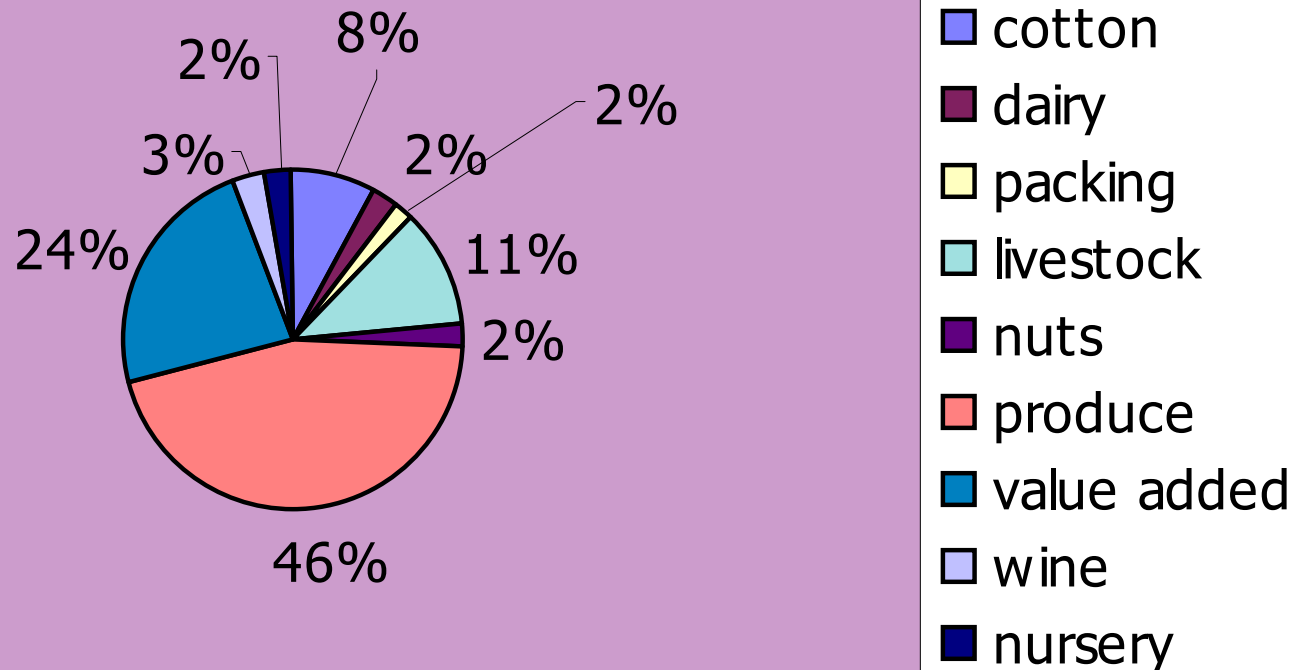
Outcome: Grants by Category

Allocation of Grant Money by Category



Outcome: Grants made by Sector

Grant Allocation by Sector



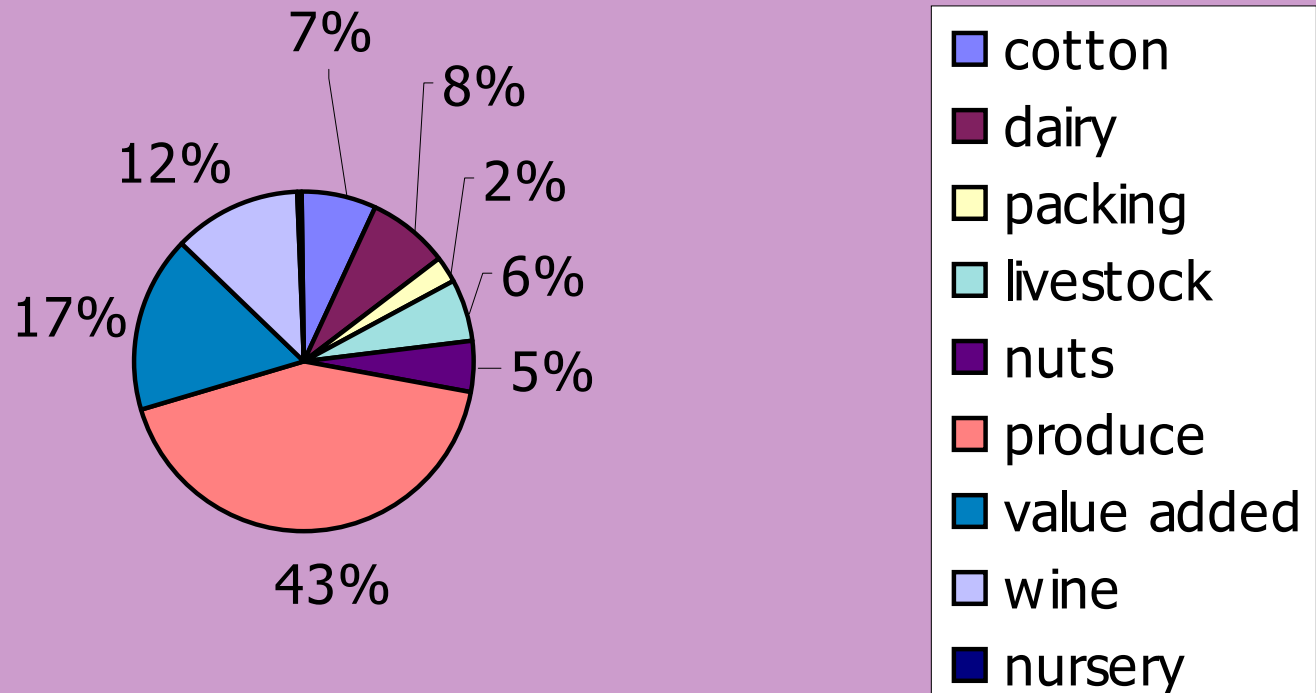
Outcome: kW Reduced by Category

Allocation of kW Reduction by Category



Outcome: kW Reduced by Sector

KW reduced by sector



Outcome Assessment: \$/kW

- **Goal: \$250-350/kW**

\$/kW Reduced

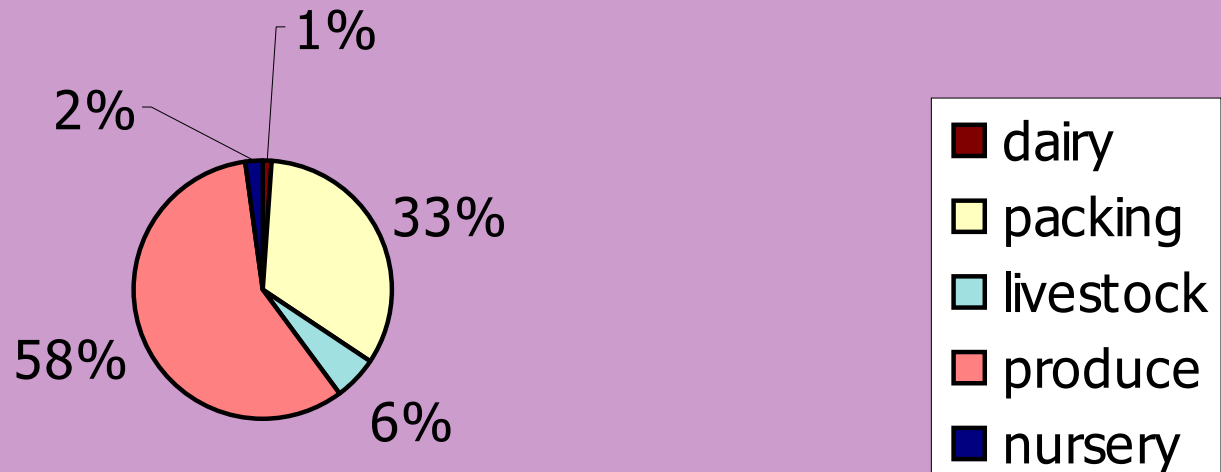
	Grant	Project
C1: Eq Eff	\$263	\$872
C3: Telemetry	\$52	\$80
Average	\$117	\$323

Outcome Assessment

- Category Assessment by Grant Money
- Category Assessment by kW Reduced

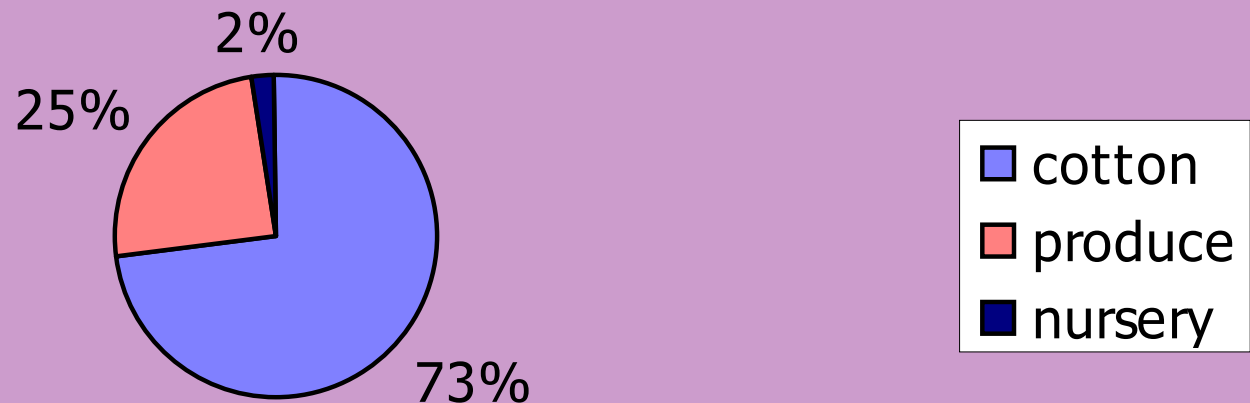
Category 1: Equipment Efficiency Grants by Sector

C1: Equipment Efficiency Grants Received by Sector



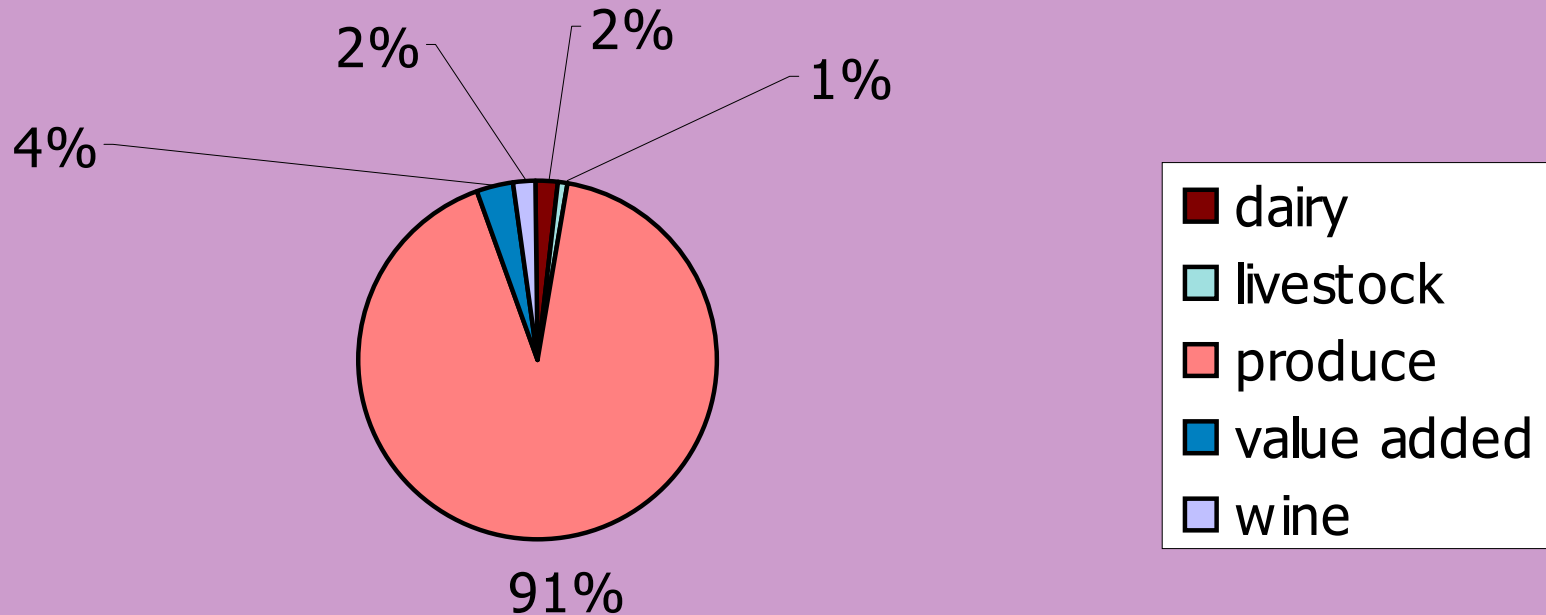
Category 2: Pump Testing Grants by Sector

C2: Pump Test: Grants by Sector



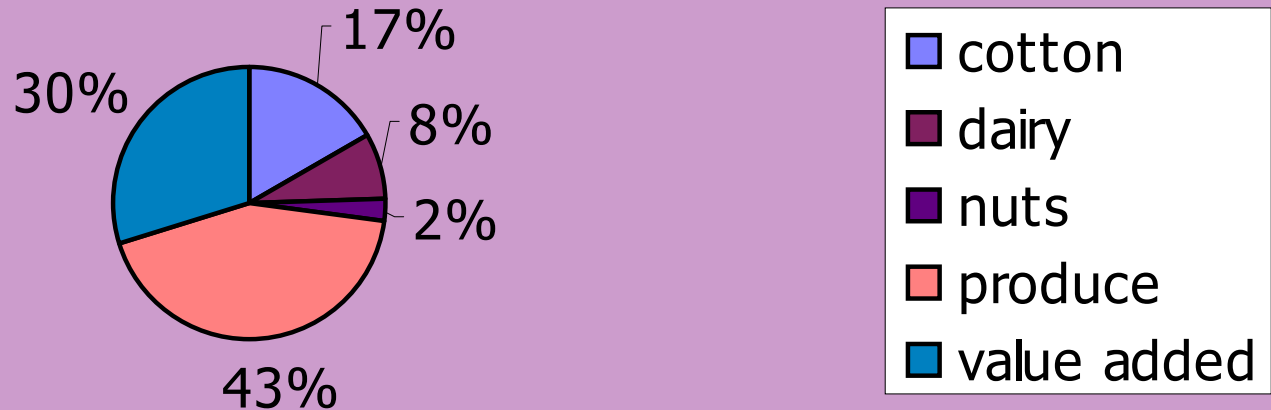
Category 3: Telemetry Grants by Sector

C3: Telemetry Grants Received by Sector



Category 4: Nat. Gas Alternatives Grants by Sector

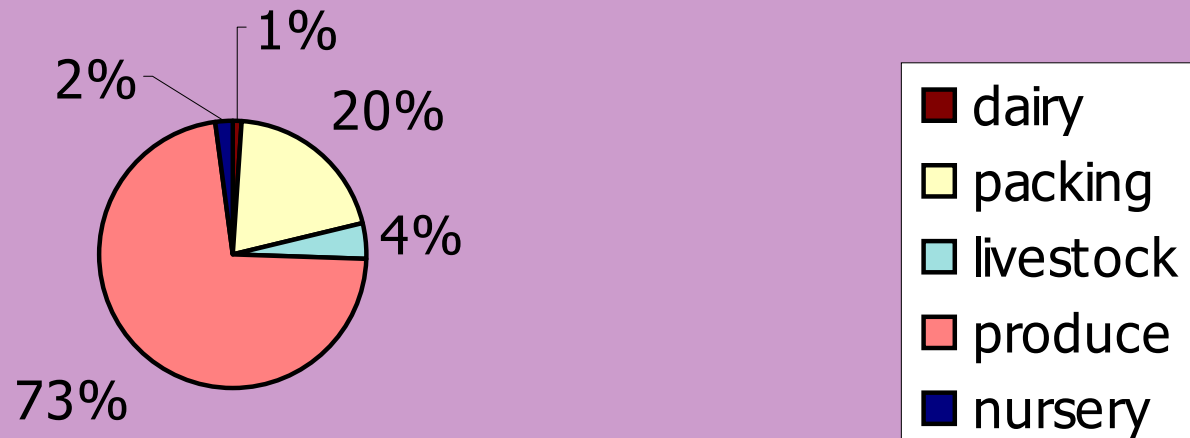
**C4: Gas Alternative
Grants Received by Sector**



Category 1: Equipment Efficiency

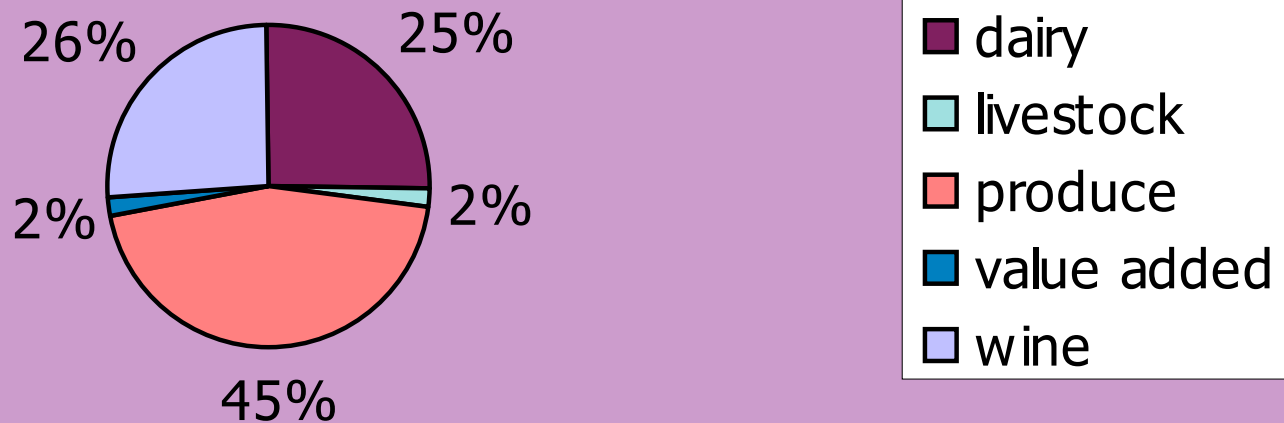
kW Reduced by Sector

**C1: Equipment Efficiency:
kW Reduced by Sector**



Category 3: Telemetry kW Reduced by Sector

C3: Telemetry kW Reduced by Sector



Lessons Learned

	sector	kW	grants
C1: Eq. Eff	nuts	862	147,731
	produce	3476	847,607
	value added	2054	507,709
	wine	907	315,945
	nursery	51	7,741
	total	7350	1,826,733
C2: Pump Test	livestock	0	34,674
		kW	Grants
Total		7350	1,861,407
% of Apps.		45%	22%

Program Extensions

- Conservation
- Time Line Extension

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 - Center for Agricultural Business
- **THANK YOU!**