

DOCKETED	
Docket Number:	18-IEPR-07
Project Title:	Doubling Energy Efficiency Savings
TN #:	223676
Document Title:	Industrial & Agricultural Sector
Description:	Presentation by Colleen Breitenstein for June 7, 2018 IEPR Workshop on Doubling Energy Efficiency Savings
Filer:	Stephanie Bailey
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	6/5/2018 10:42:19 AM
Docketed Date:	6/5/2018

Doubling Energy Efficiency Savings Workshop

Industrial & Agricultural Sector

Colleen Breitenstein

June 7, 2018

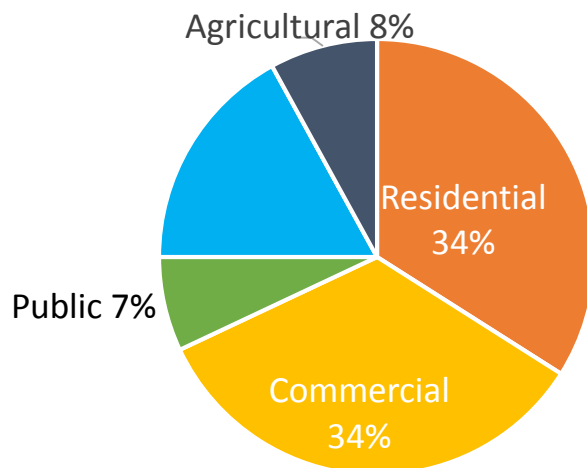


Together, Building
a Better California

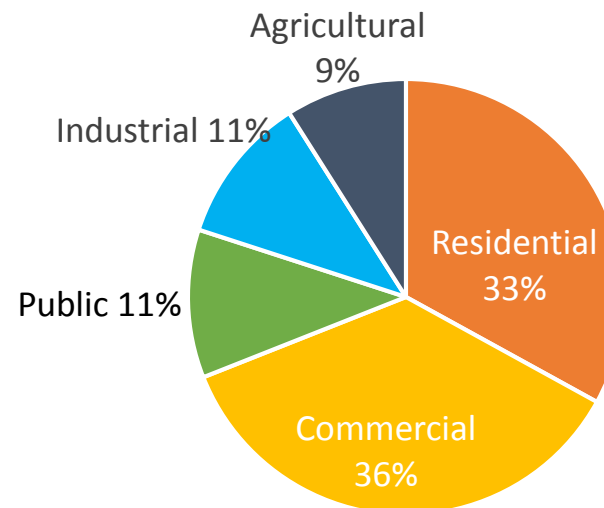


PG&E Portfolio Overview (2015)

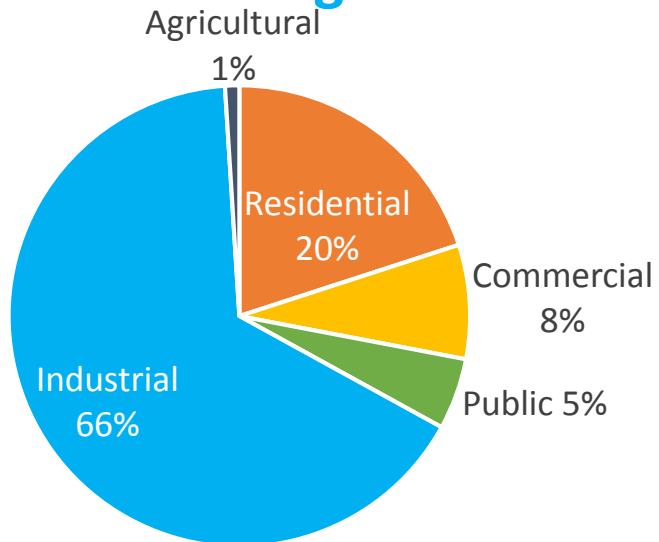
Electric Usage



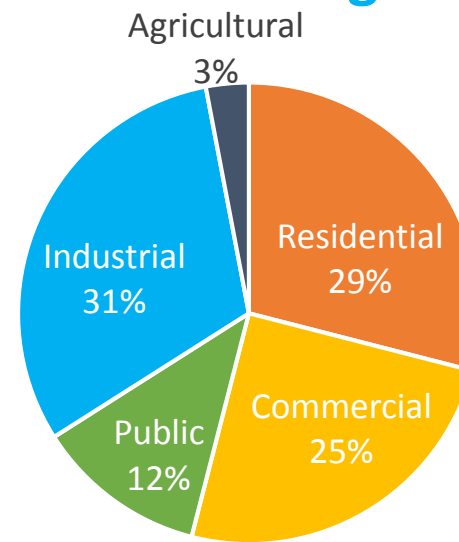
Electric Savings



Gas Usage

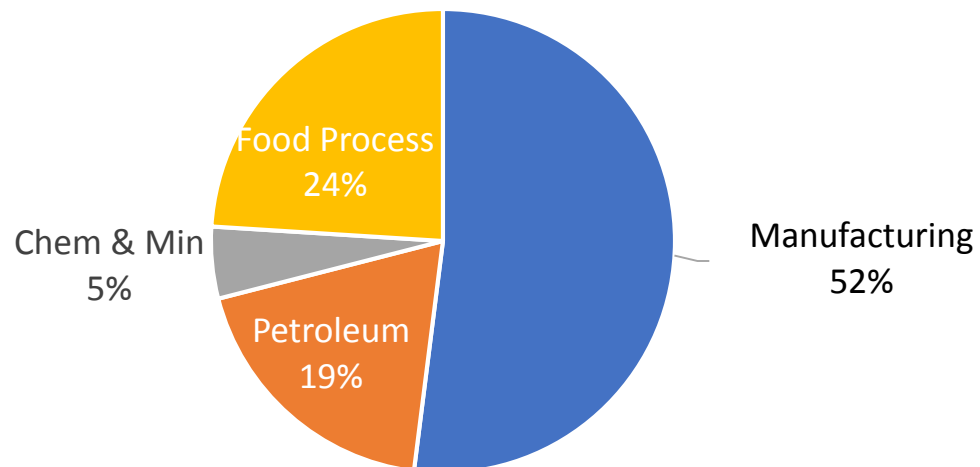


Gas Savings

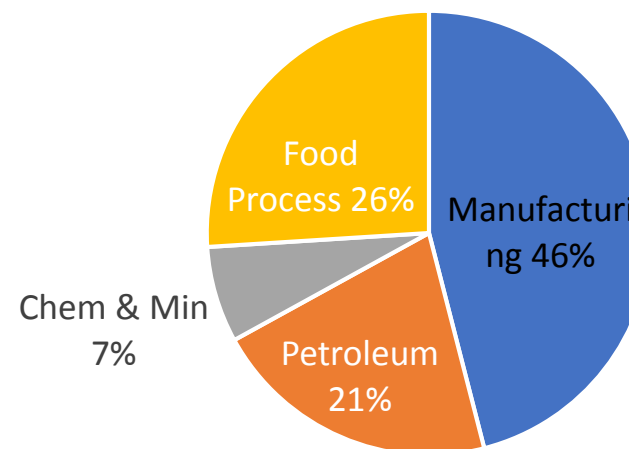


Industrial Sector Overview (2015)

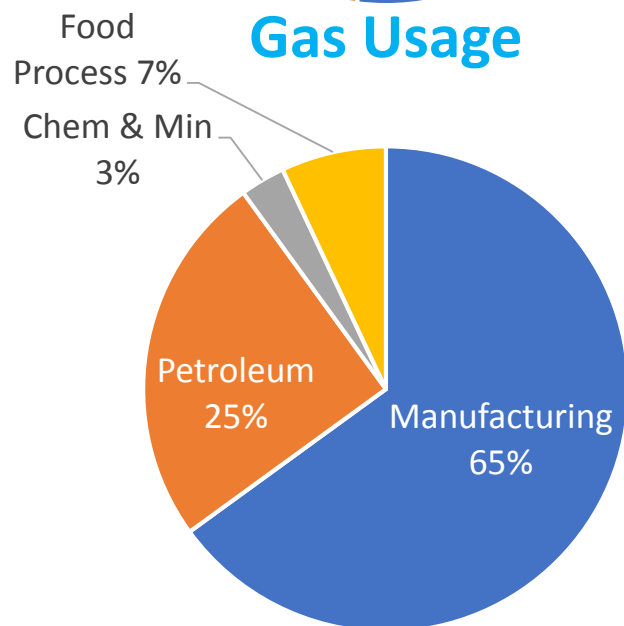
Electric Usage



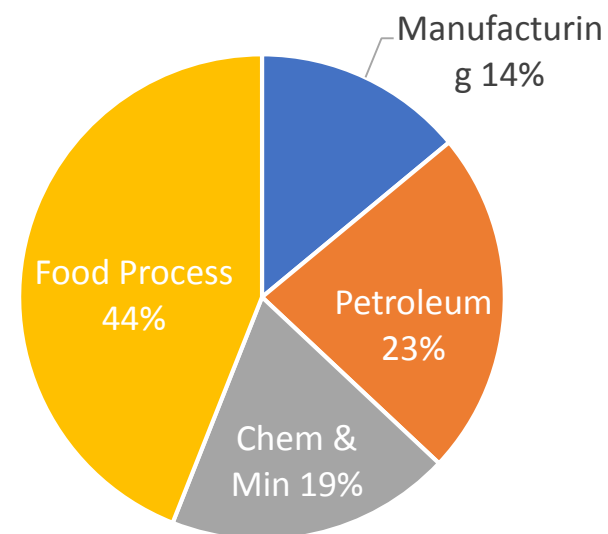
Electric Savings



Gas Usage



Gas Savings





Industrial Barriers to Energy Efficiency

Industry Standard Practice (ISP)

- Very difficult to establish baselines in highly customized environments
- Company-specific standards

Project-Level Influence

- Customer decision-making can be very complex
- Motivated customers can be excluded as free riders
- A standard approach is difficult in custom industrial environment

O&M

- Stranded savings—limited recent program penetration



Industrial Opportunities

Strategic Energy Management

- Potential to claim O&M and process improvements
- Education and market transformation
- Benchmarking

Financing

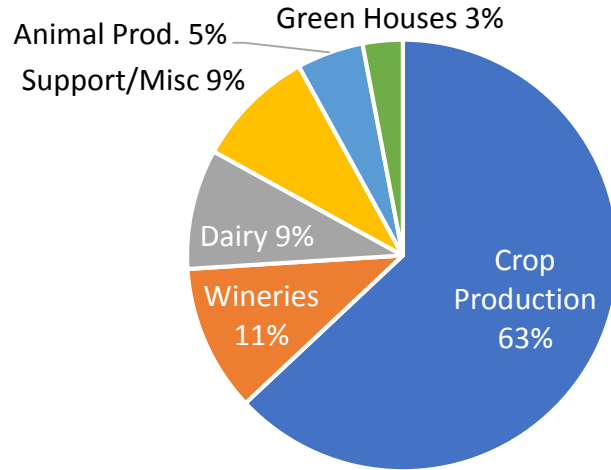
- Loans for good projects with no need for cash incentives
- Exploring raising loan amounts to cover larger projects

Expanding and Improving Existing Measures

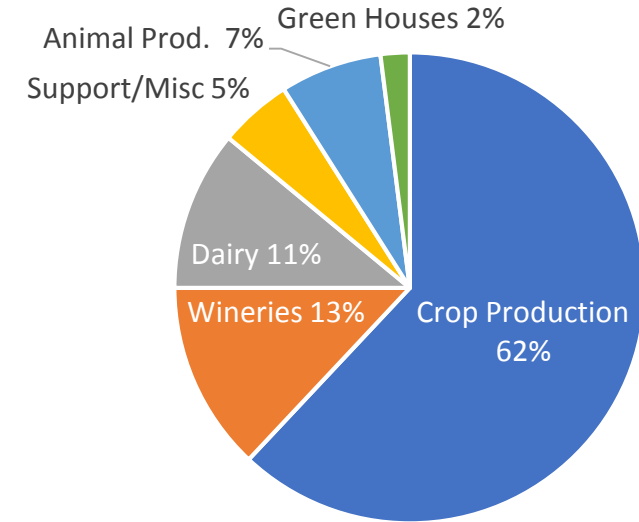
- Expansion of pipe insulation measures
- Allowing process fan VFDs to use customized calculations

Agricultural Sector Overview (2015)

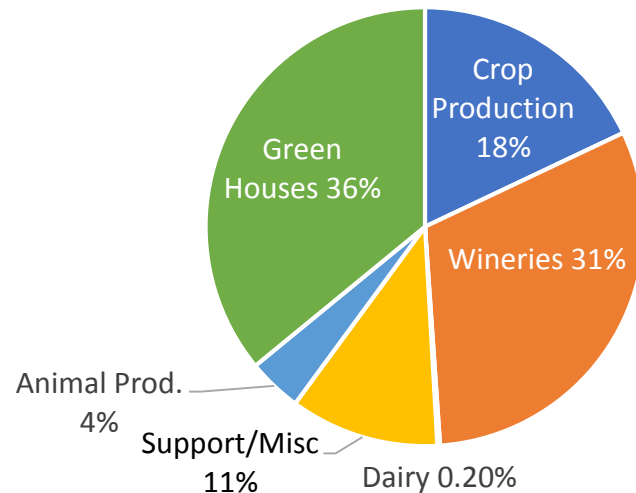
Electric Usage



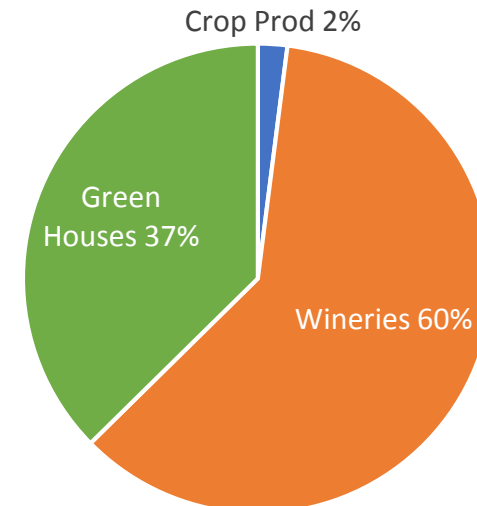
Electric Savings



Gas Usage



Gas Savings





Agricultural Barriers to Energy Efficiency

Limited Measures Available

- Savings potential dominated by pumps and pumping related measures
- Other measures have reached market saturation tipping point (ISP)
- Cost-effectiveness challenges

Industry Standard Practice

- Over 400 agricultural products in CA, studying each is not feasible
- Adoption varies by sophistication and resources

Lack of Current Market Characterization Information

- Information is stale
- Does not account for changes in regulatory environment

Project-Level Influence

- Customer decision-making can be very complex
- Motivated customers can be excluded as free riders
- A standard approach is difficult in custom industrial environment



Agricultural Opportunities

Strategic Energy Management for Food Processing

- Potential to claim O&M and process improvements
- Education and market transformation
- Benchmarking

Financing

- Loans for good projects with no need for cash incentives
- Exploring raising loan amounts to cover larger projects
- Food Production Investment Program (FPIP)

Expanding and Improving Existing Measures

- Exploring enhancement to VFD measures
- Relaunching process fan VFDs specifically for agricultural applications
- Change requirements for pump overhauls

Thank you