

# NATURAL GAS: PART OF THE ZNE FUTURE

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RESNET 2016 | The Role of Natural Gas in Zero Net Energy | March 1, 2016



# A little bit about SoCalGas

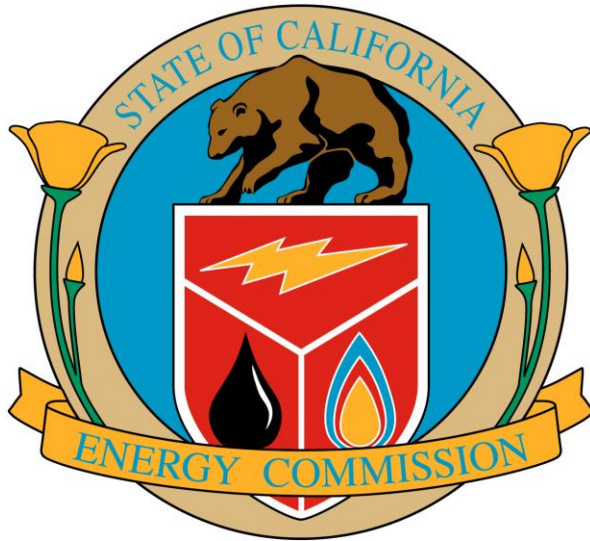
- SoCalGas has been delivering clean, safe and reliable natural gas to our customers for more than 140 years.
- We are the nation's largest natural gas distribution utility, providing energy to 20.9 million consumers through 5.9 million meters in more than 500 communities.
- Service territory of approximately 20,000 square miles
- Workforce of 8,300+ employees



# ZERO NET ENERGY

the definition

**TIME DEPENDENT VALUATION**

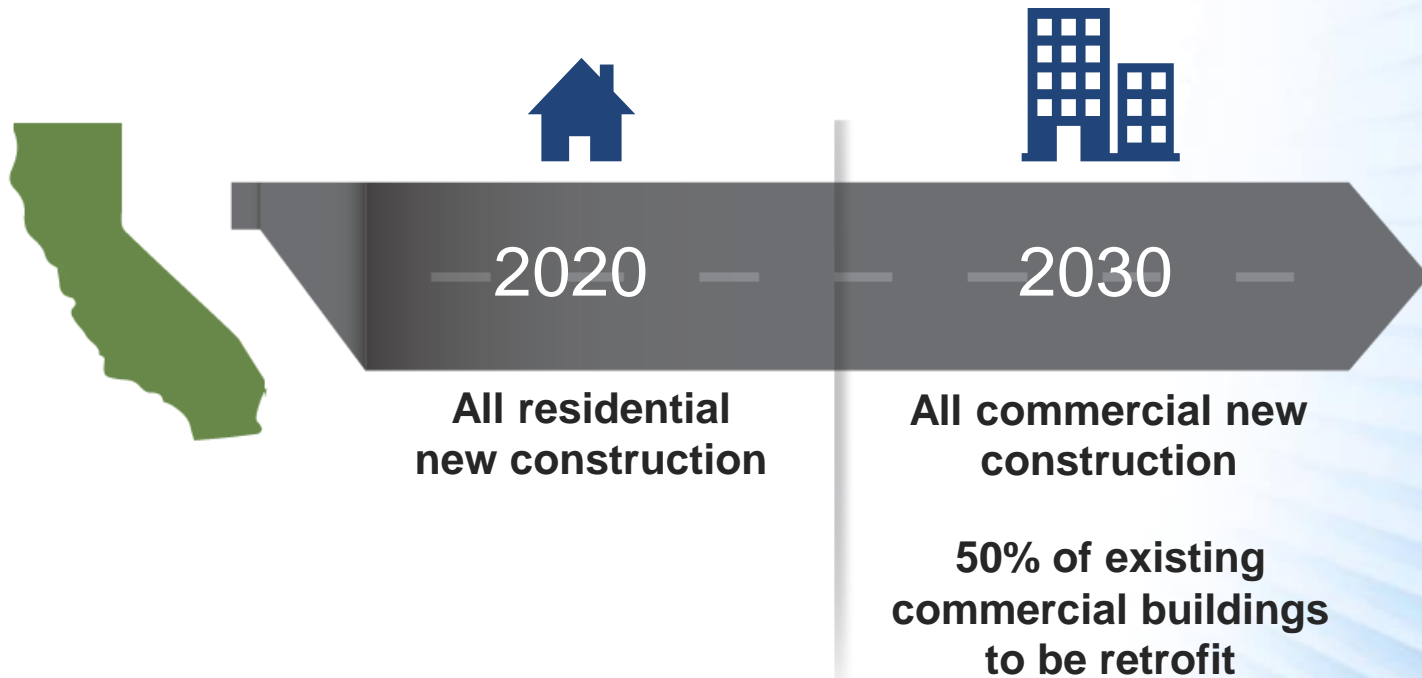


A Sempra Energy utility

**SOURCE ENERGY**



# California is leading the way in **ZNE GOALS**



# CODES & STANDARDS

driving energy efficiency and ZNE

2016 RESIDENTIAL  
MEASURES

**\$7,400**

SAVINGS OVER A  
30 YR. MORTGAGE

**\$2,700**

INITIAL COST  
FOR MEASURES

HIGH EFFICACY LIGHTING



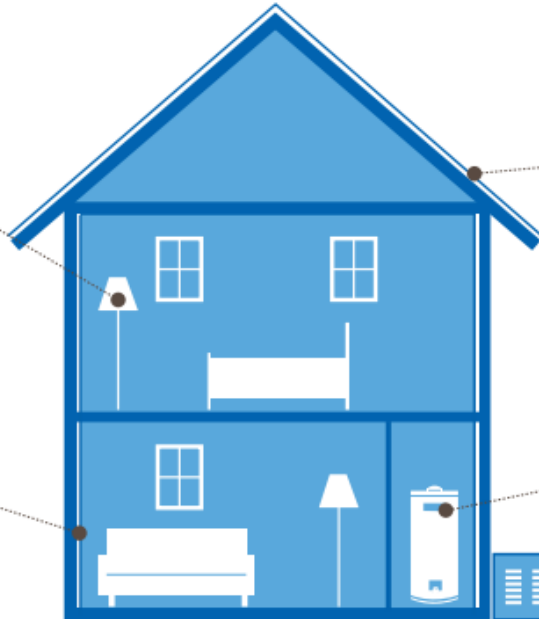
HIGH PERFORMANCE ATTICS



HIGH PERFORMANCE WALLS

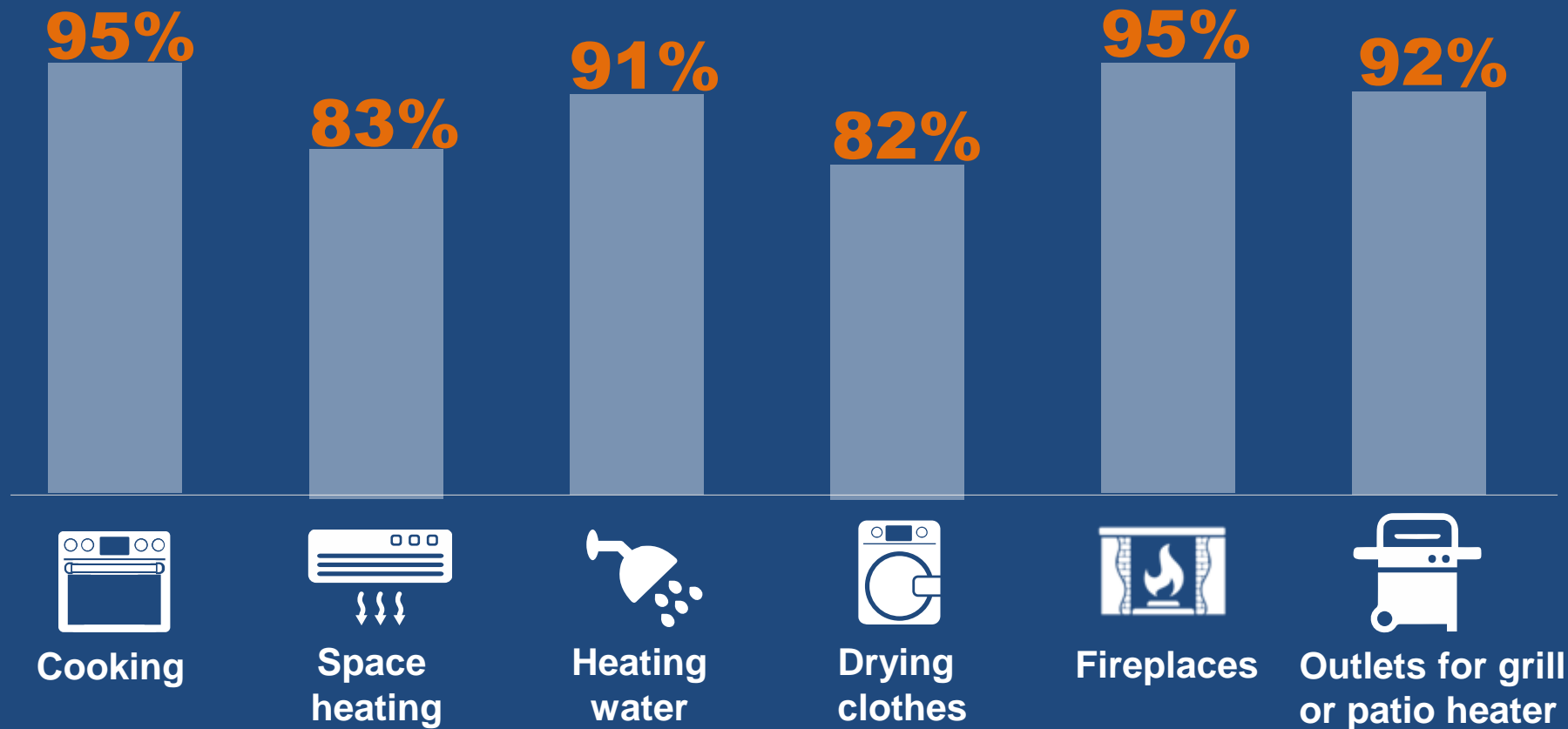


IMPROVED WATER HEATING  
SYSTEM EFFICIENCY



**NATURAL GAS IS PART  
OF THE SOLUTION**

# Natural gas is the **PREFERRED CHOICE**



# Natural gas is **AFFORDABLE**

## Cost savings compared to electric



Space Heating **\$60** / year

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Laundry **\$76-\$160** / year

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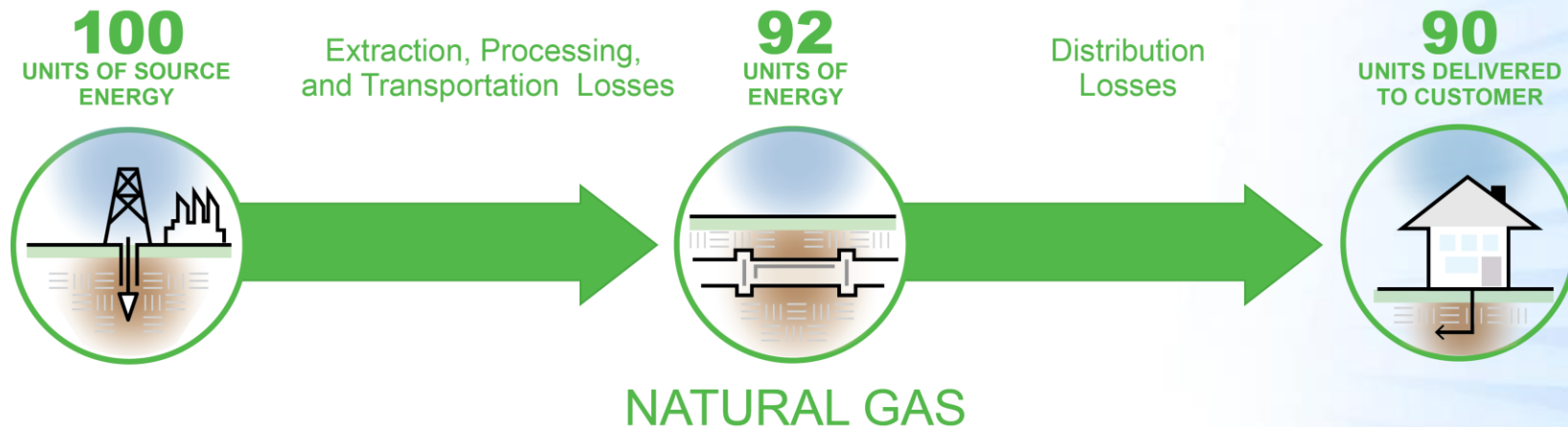
Water Heater **\$96-\$528** / year

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Total: **\$232-\$748** / year



# Natural gas is **MORE EFFICIENT**



## **GRID ELECTRICITY**

(which would still be used some of the time in a ZNE home)





# DEMO PROJECTS



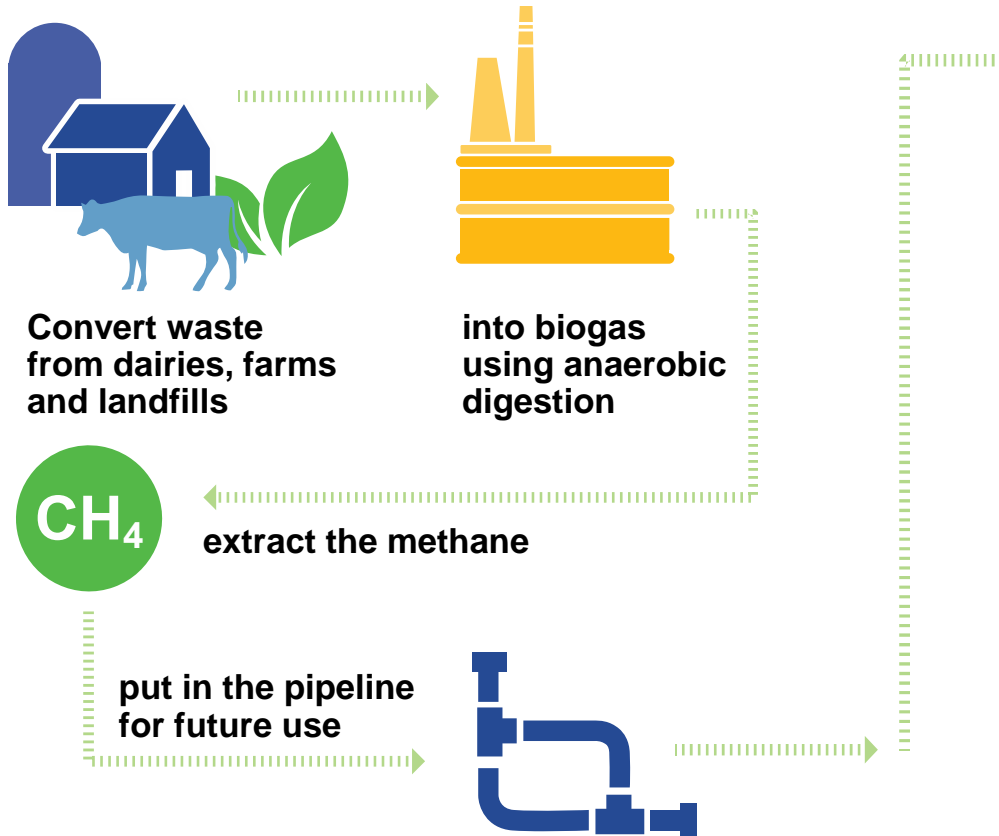
Limit technology and you limit the possibility.

**We need to think bigger and find  
solutions across the entire**

**ENERGY SYSTEM**

# RENEWABLE

## Natural gas



WHAT'S POSSIBLE

POWER

**2-3 million** homes

REPLACE

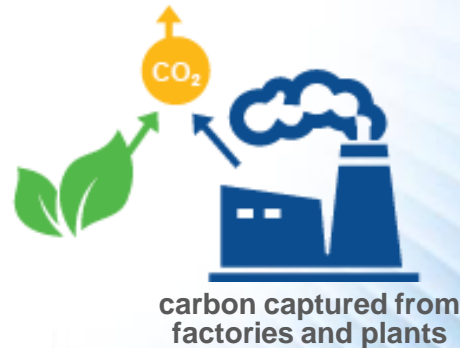
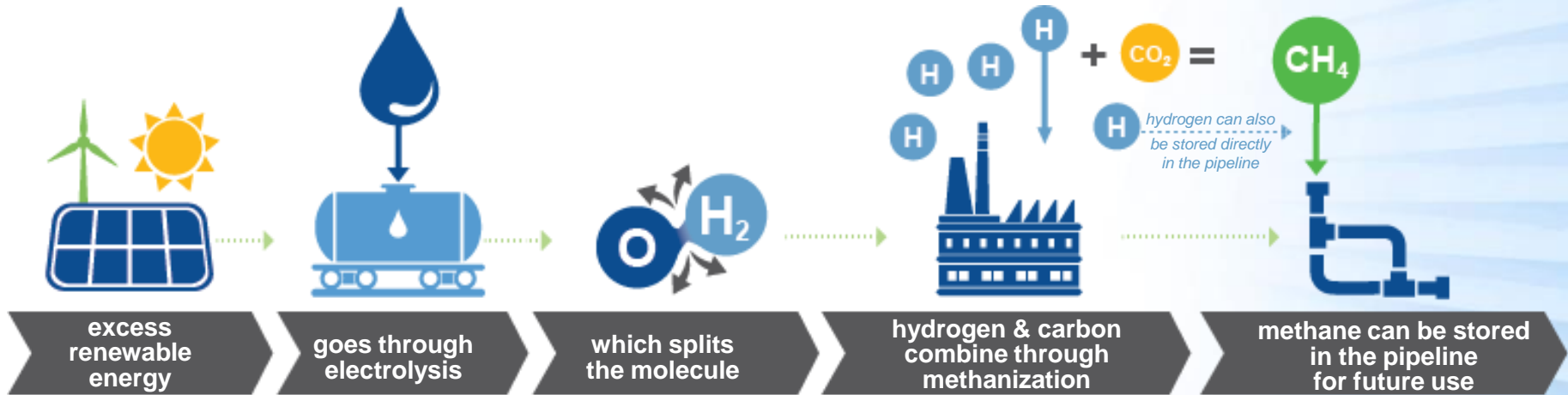
**75%** of all diesel  
used by CA vehicles

When used for transportation,  
Biogas from food and green  
waste can actually

**REMOVE GHGs**  
from the atmosphere

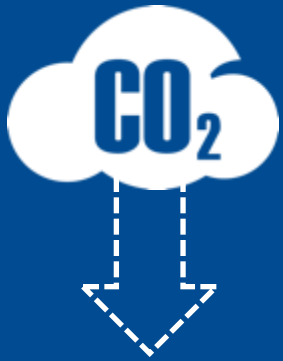
# POWER-TO-GAS

addresses the storage challenge



A Sempra Energy utility

# Natural gas offers a practical path to meet **GHG REDUCTION GOALS**



## **REDUCE**

emissions from  
sectors that are  
difficult to electrify



## **INTEGRATE**

renewable  
generation



## **LEVERAGE**

existing infrastructure




## **DIVERSIFY**

technology and supply  
risks

# THANK YOU



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