

# Grid Connected Homes & Businesses

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# VERMONT'S RENEWABLE ENERGY STANDARD

- ▶ Tier I – Total renewables

55% → 75%

- ▶ Tier II – Small-scale, in-state, new renewables

1% → 10%

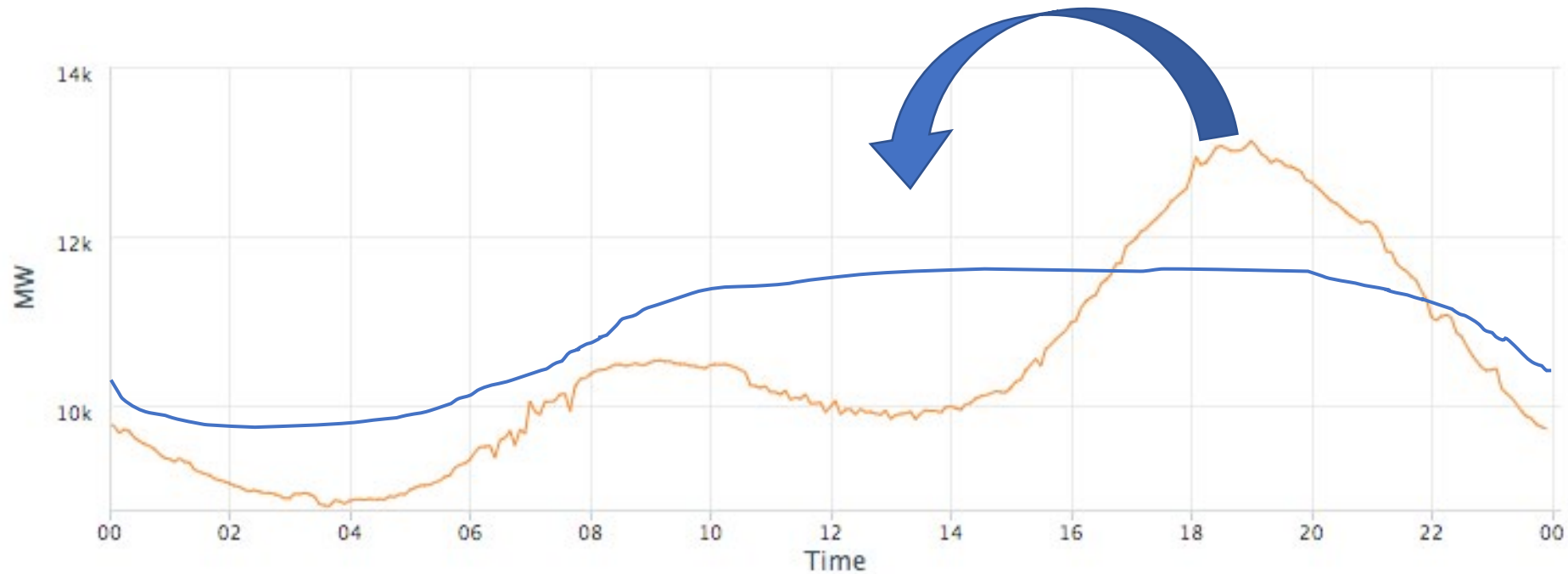


# TIER III – ENERGY TRANSFORMATION



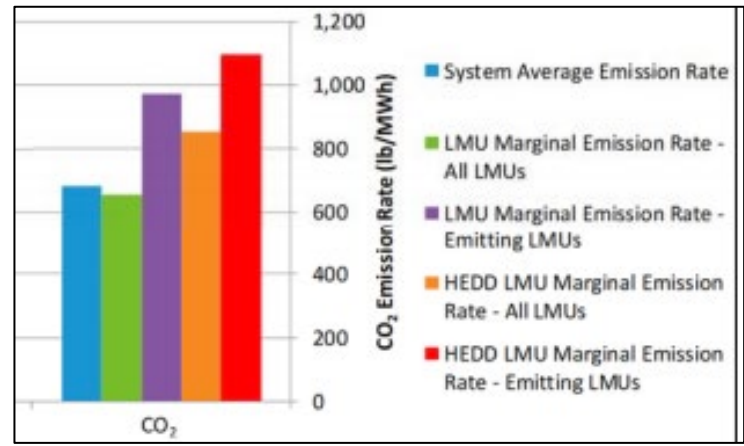
**90%**  
RENEWABLE BY  
**2050**

# LOAD SHAPING THROUGH FLEXIBILITY

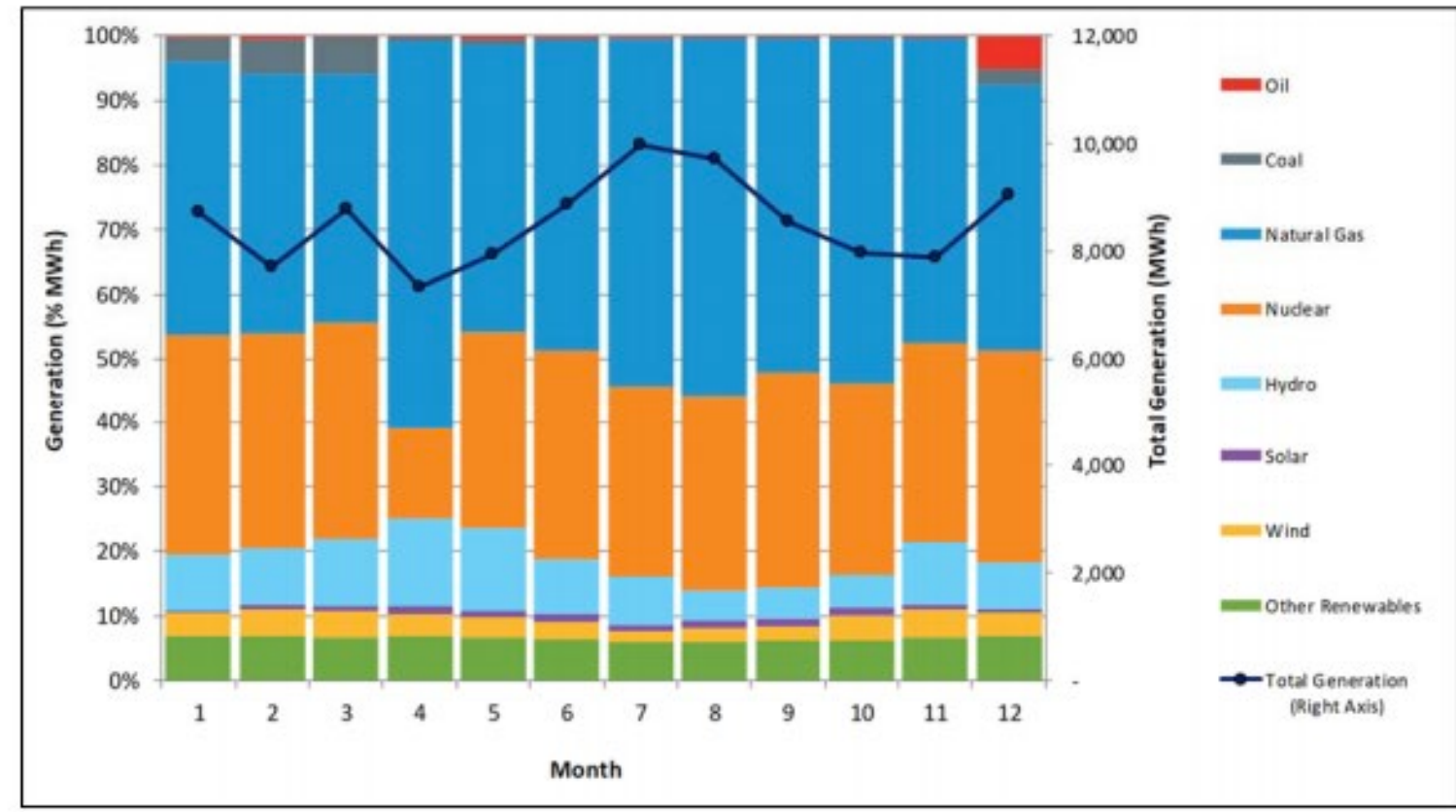


**Flexible loads help flatten the peaks**  
**Lower peaks mean lower costs!**

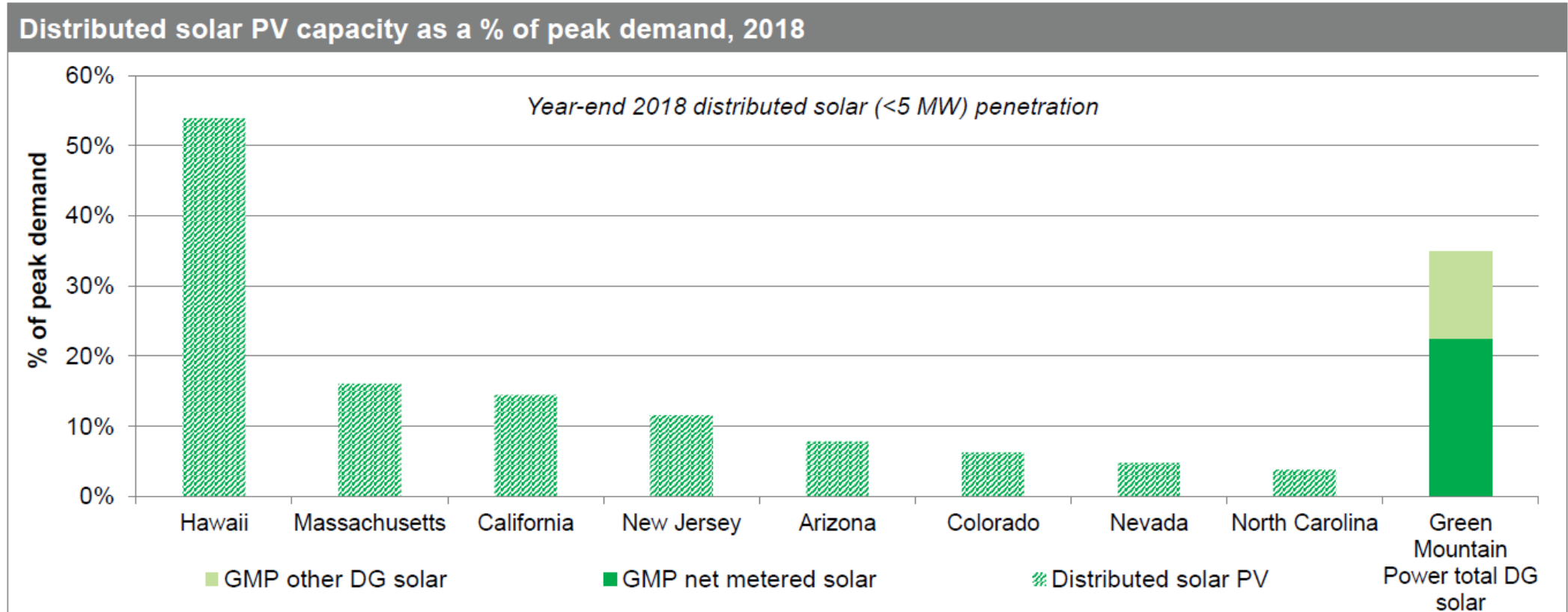
# EMISSION INTENSITY ON THE GRID



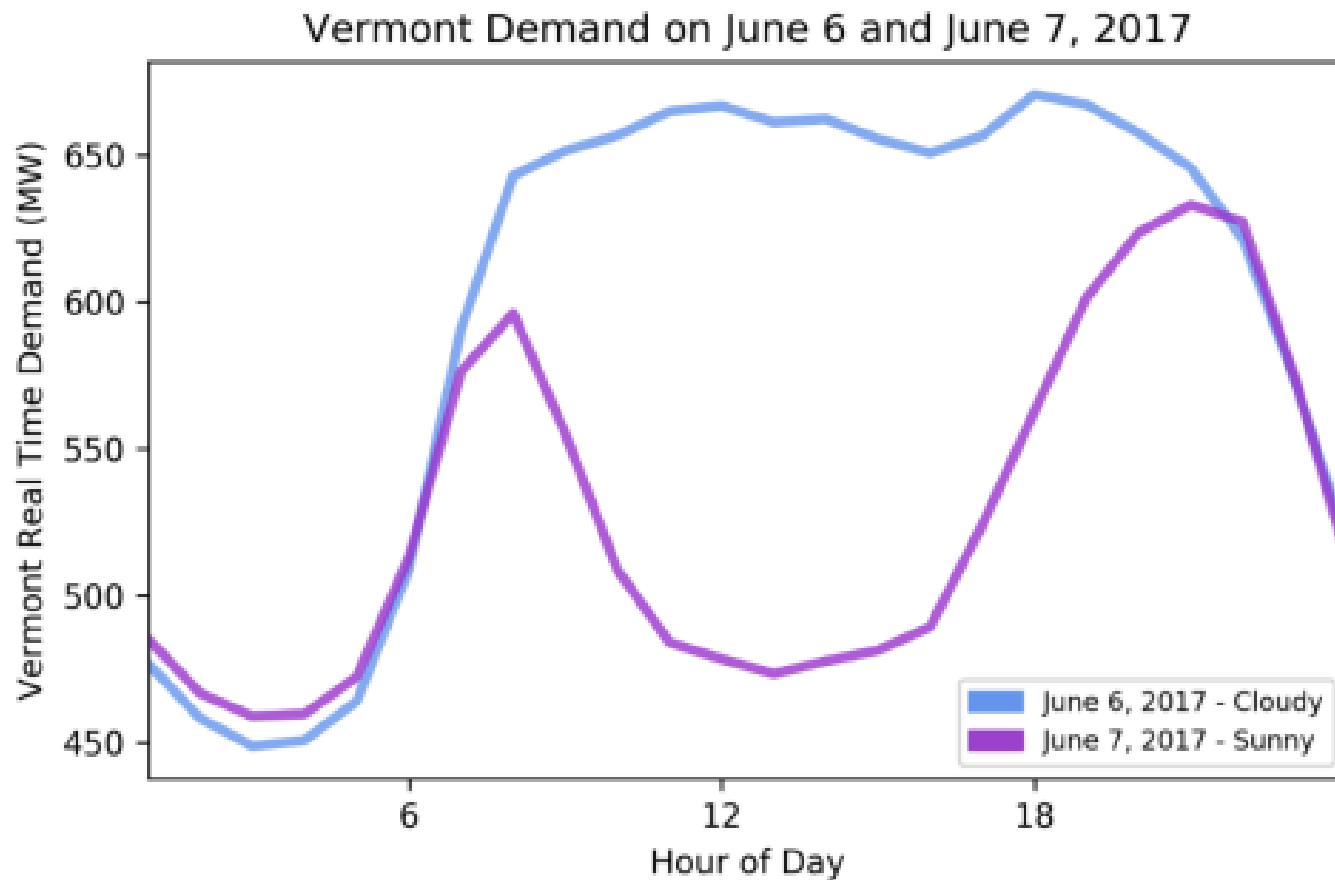
High demand = high emissions  
Dirtier fuels come online in winter



# SOLAR IN VERMONT: #2 IN THE COUNTRY!



# THE CHAMP CURVE



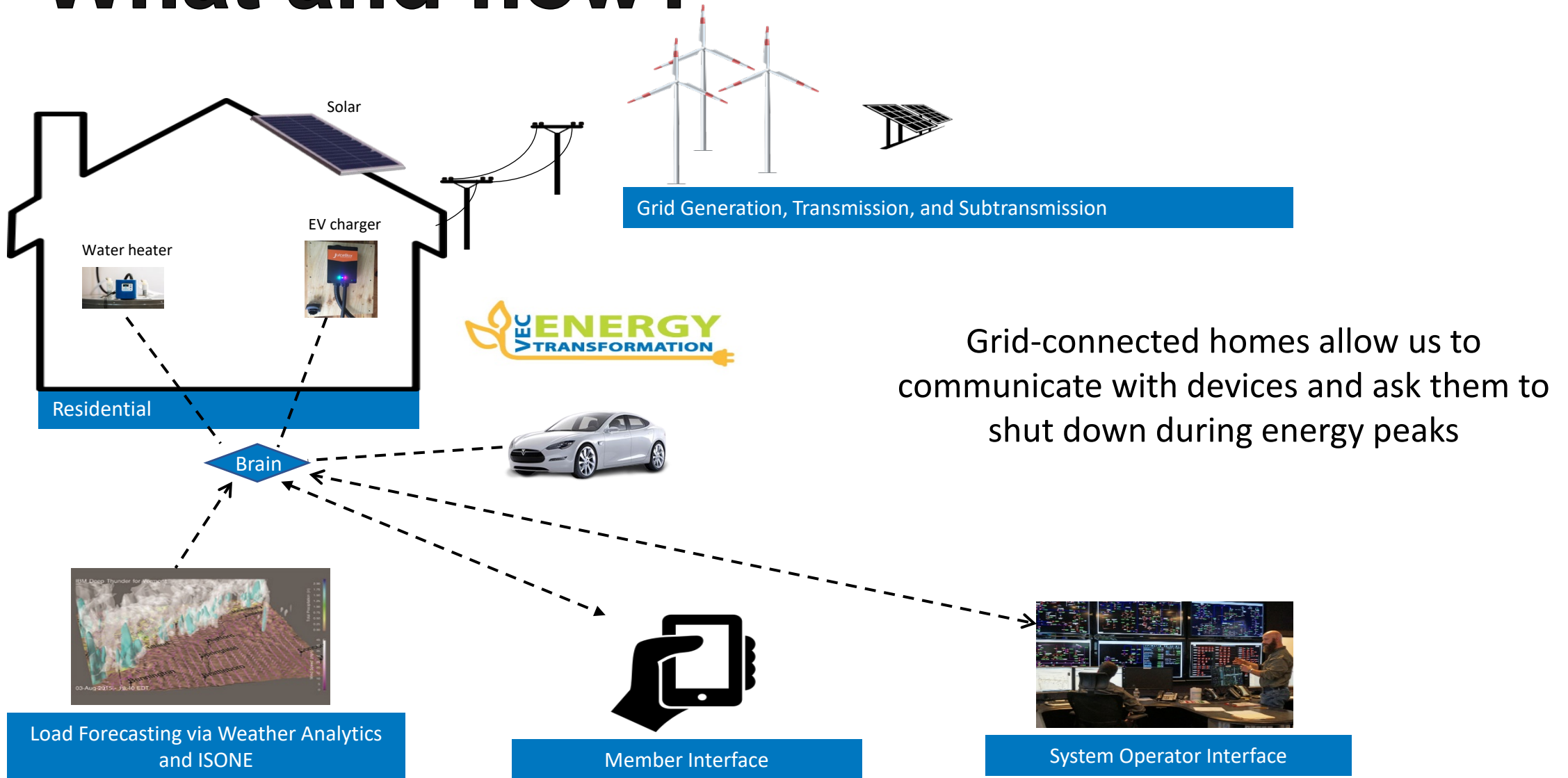
**Flexible loads can respond to intermittent generation, enabling further development without traditional upgrades**

# Leading into the Future: **Grid-Connected** Homes & Businesses

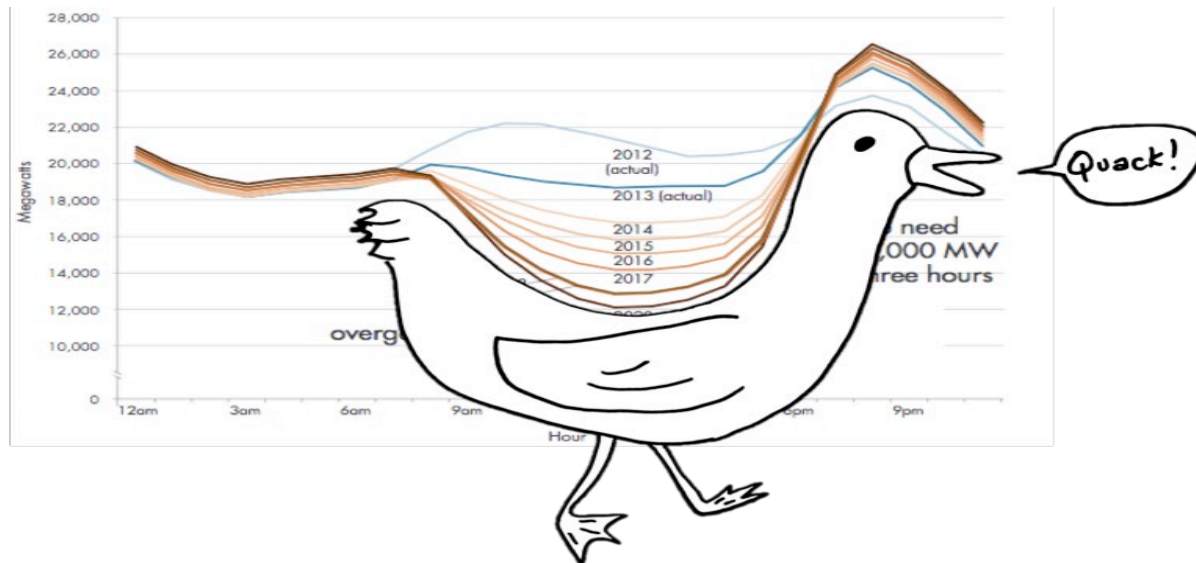
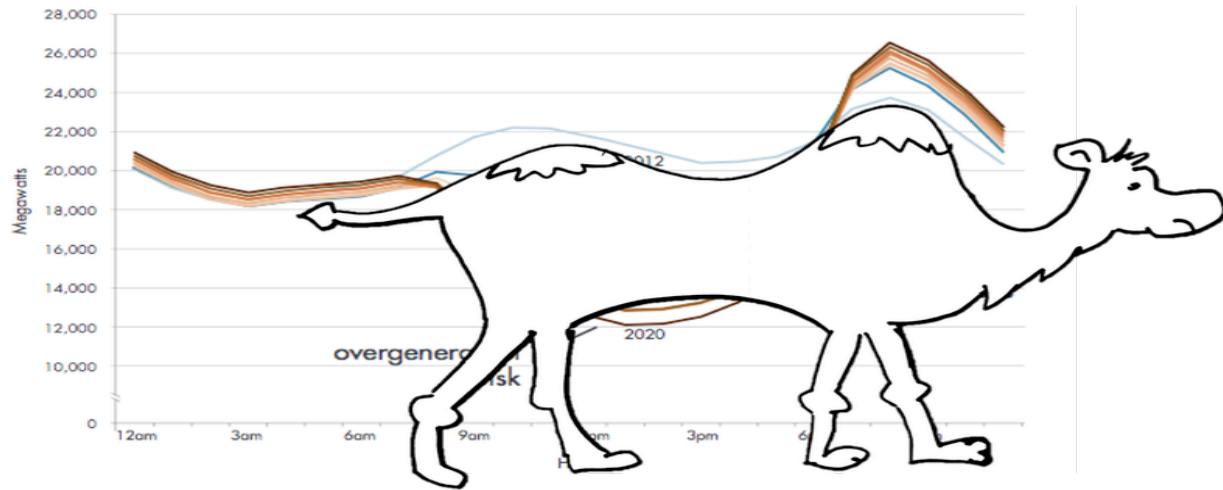




# What and how?



# Why?



Shave peaks

Reduce costs

Pass on value

# Packetized

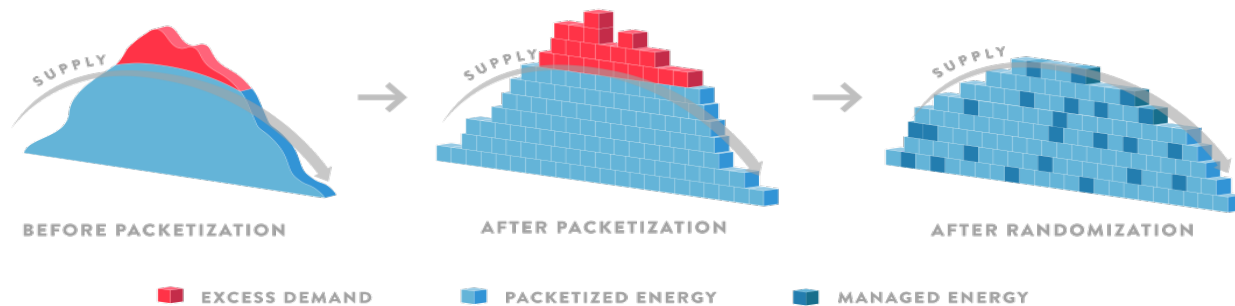


Communicate with water heaters to  
avoid peak times

Over 100 currently installed

No change in hot water availability

Installation is a challenge



# EV Chargers



**Incentive to purchase a compatible charger**

**Additional incentive to enroll on platform and not charge during events**

# What's next?



**Develop additional opportunities to communicate with member-owned devices**

**Possibly offer device-specific off-peak rates**