



# INSURING CALIFORNIA IN A CHANGING CLIMATE

June 13, 2018

Risk Solutions



Hartford Steam Boiler

Munich RE 

# Performance Insurance uptake/traction



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## Solar Shortfall insurance

1.25 GW of insured performance

Across 12 US states and 1  
Canadian province



## Energy Efficiency Insurance

2.176 Million ft<sup>2</sup> total:

- Residential: 220,000 ft<sup>2</sup>.
- Small Commercial: 1,220,909 ft<sup>2</sup>.
- Industrial: 735,992 ft<sup>2</sup>.

# Energy Efficiency Insurance (EEI) Timeline



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● **ESPC**  
-Larger ESCOs  
-MUSH Market

● **EEI (Single Project –ESCO)**  
• HVAC  
• LED Lighting  
• Building controls, etc.

**Primarily Engineering Analysis**

● **EEI Portfolio**  
• Residential  
• Small C&I  
• Restaurant Chains

**Engineering + Risk Modeling Analysis**

● **Pay For Performance (P4P)**  
• Utility program structure  
• Portfolio risks  
• Energy Efficiency at scale

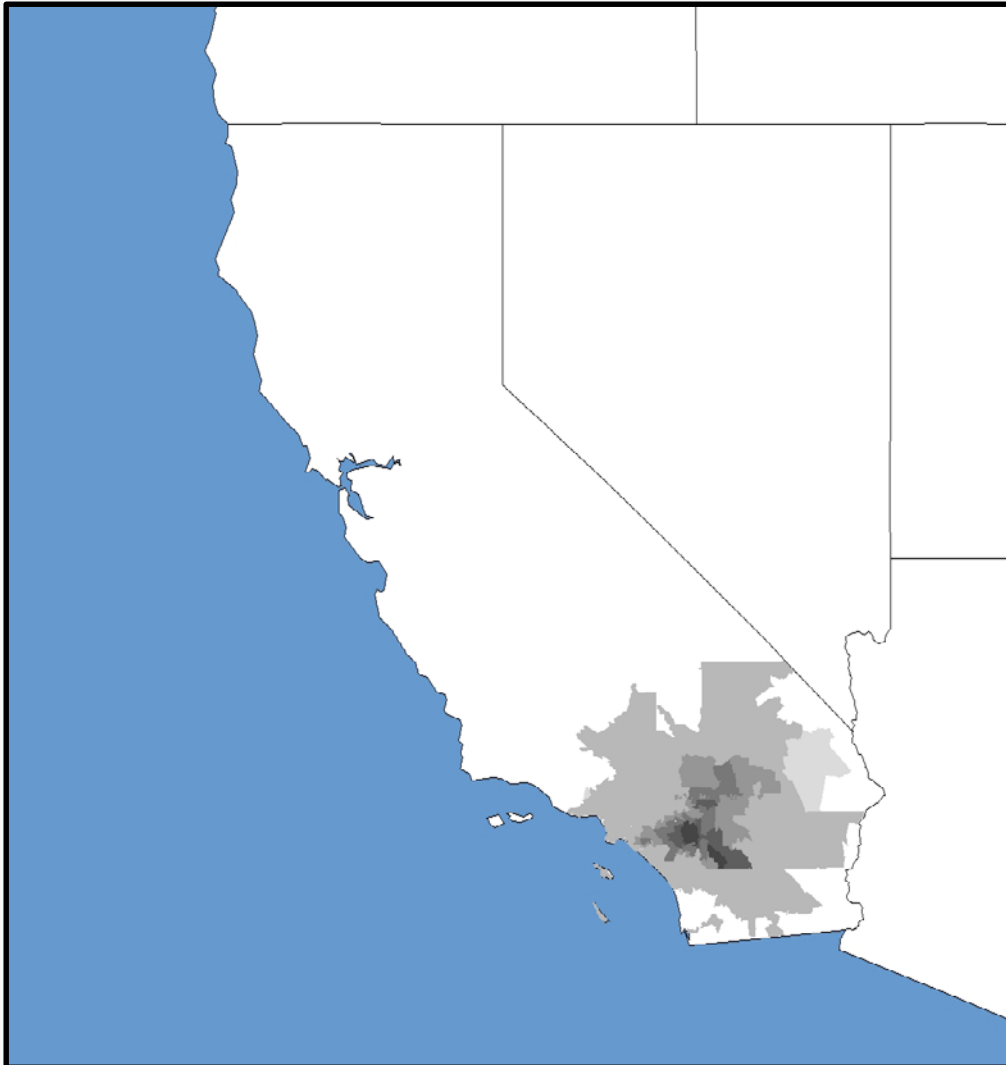


- Energy Storage
- Algorithms
- IoT
- Weather Effects

# California Power Outage Risk: Severe Thunderstorm 1:100 event

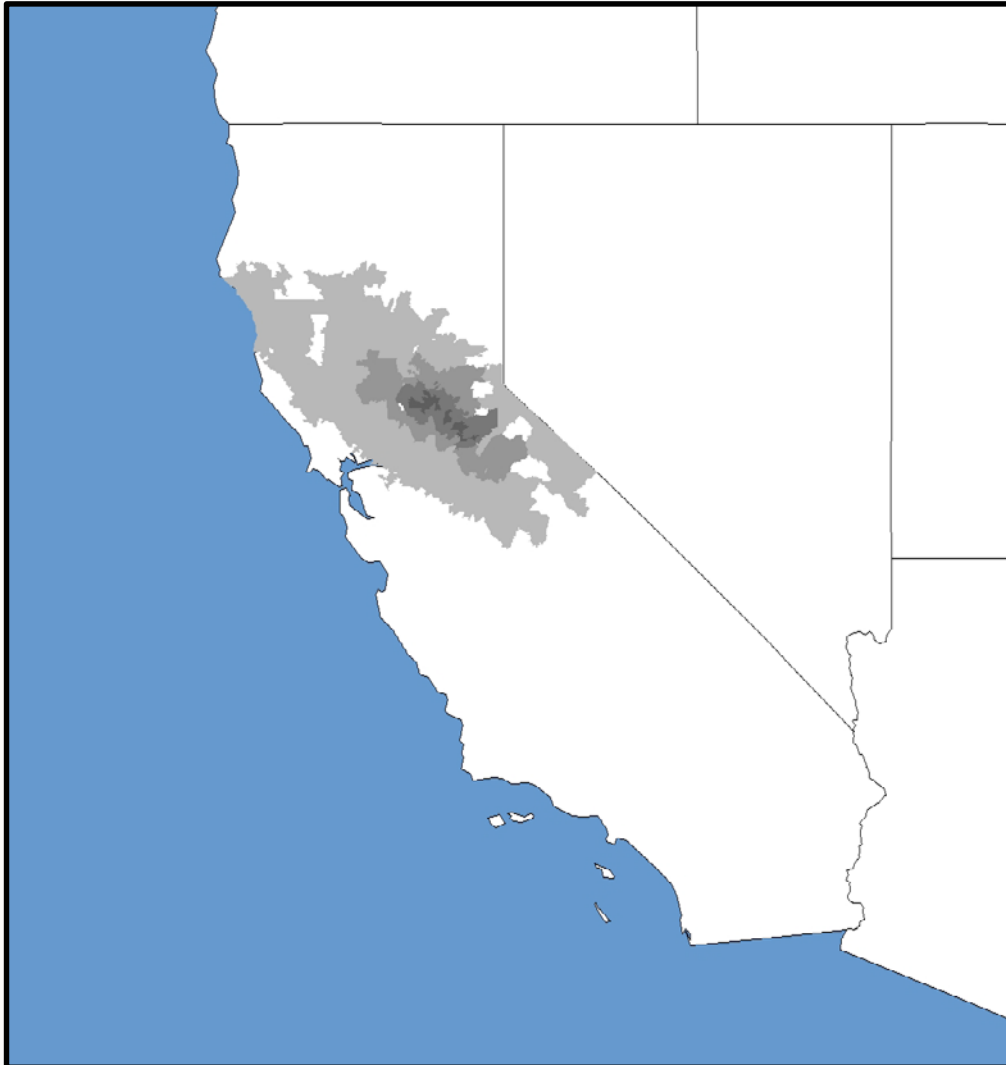


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- Affects 800k people across 8 states.
- In California, 609k people will have power loss.

# California Power Outage Risk: Severe Thunderstorm 1:200 event

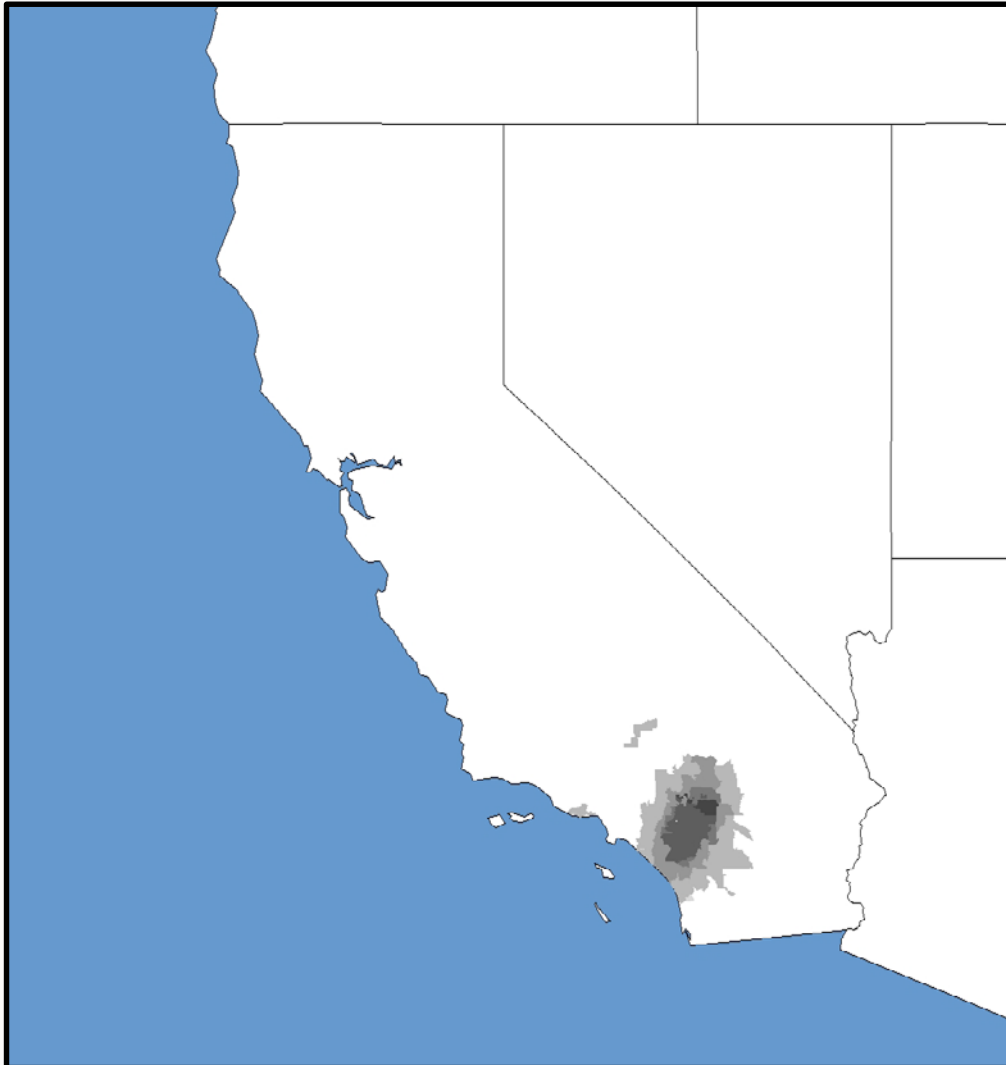


- Affects 1.4 million people across 28 states.
- In California, 935k people will have power loss.

# California Power Outage Risk: Severe Thunderstorm 1:500 event



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- This event is localized to California.
- In California, 1.9 million people will have power loss.

# contact information



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