

Load Reduction and Wildfire Mitigation: Surprise Synergy?



WILDFIRE RISK
& RESILIENCE
@PNNL

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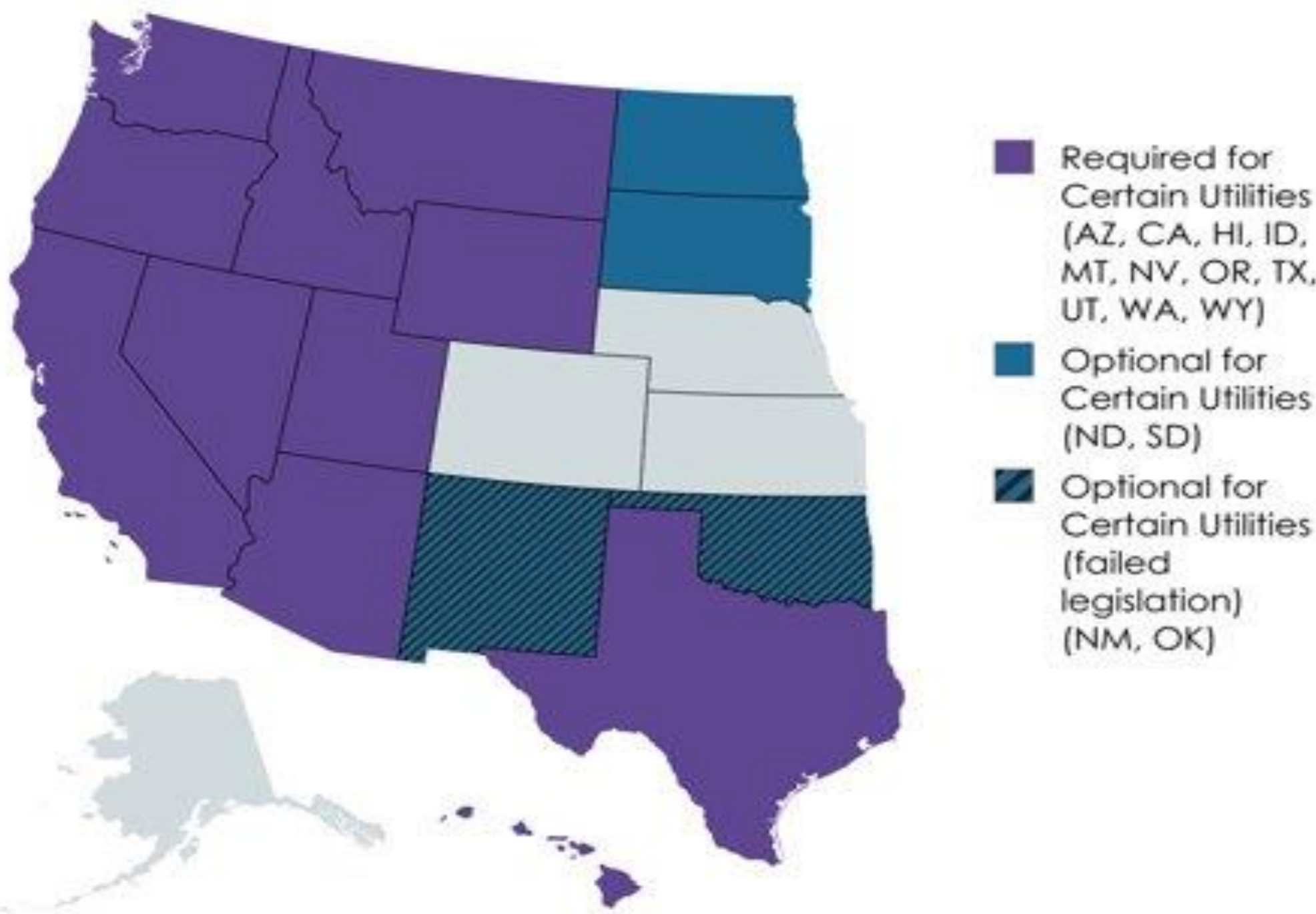
Wildfire Mitigation Planning Background

Wildfire Mitigation Plans (WMPs) are utility-prepared documents identifying strategies and measures to mitigate risk, including:

- Capital improvements like undergrounding and pole and conductor upgrades
- Operational improvements like vegetation management and situational awareness

WMPs are being prepared by all utility ownership types, including merchant facilities. Regular documentation of wildfire mitigation through WMPs may become a new norm due to business pressures.

Wildfire Mitigation Plan Requirements, by State

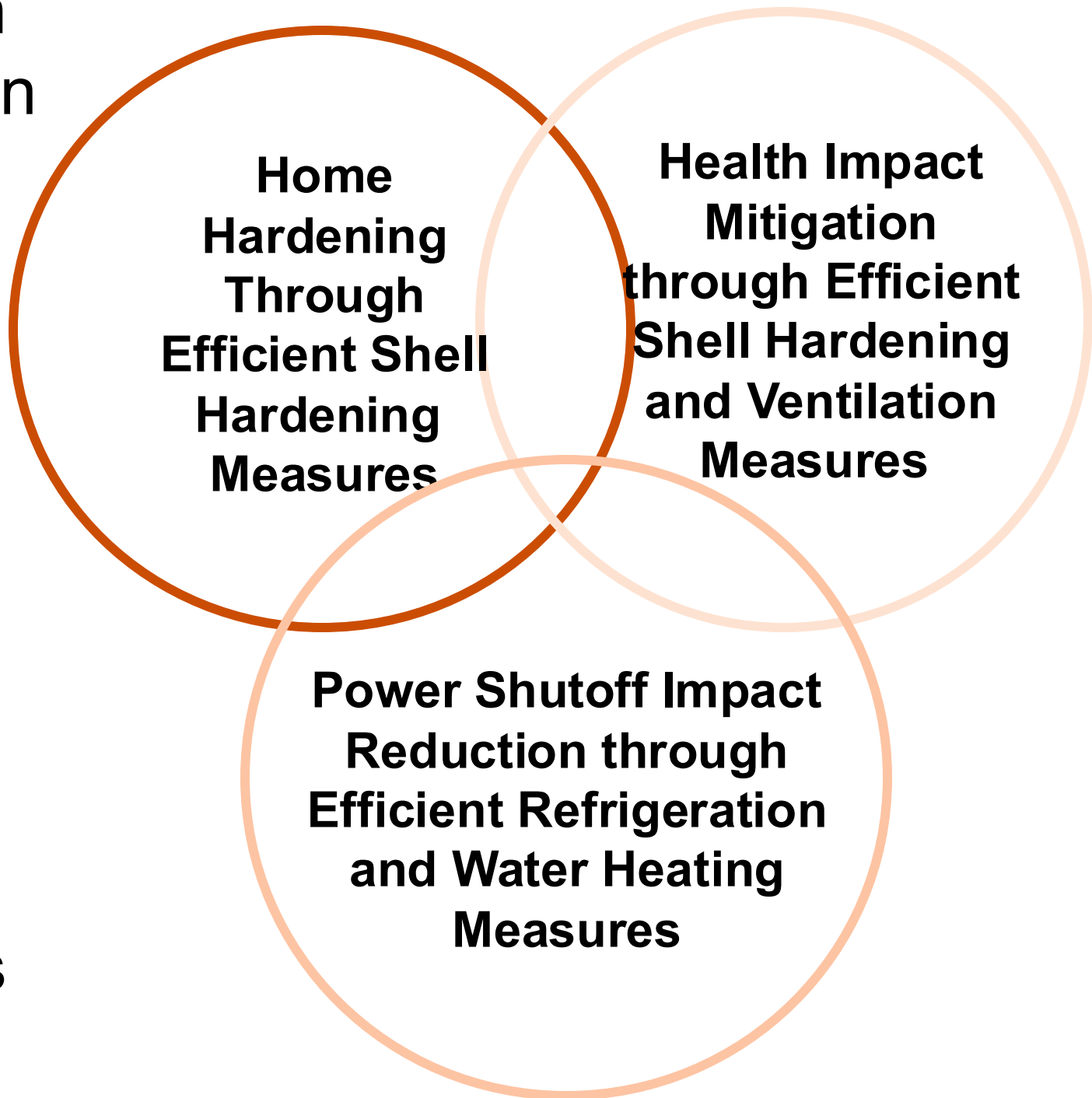


Wildfire Impact Reduction from Load Reduction Measures

Some load reduction measures, such as controlled ventilation and infiltration reduction, reduce the health impacts of wildfire smoke for building occupants.

Other measures, such as windows and doors, harden buildings against fire damage.

And yet other measures, such as high efficiency refrigeration, reduce the need for backup power resources during public safety power shutoffs.



To synergize these efforts, we propose a six-step coordination process:

1. Utilize existing data to determine areas at greatest risk of weather driven and public safety power shutoff events and apply synergistic treatment to them
2. Include fire safety audits in energy audits, and energy audits in fire safety audits
3. Highlight the wildfire mitigation impacts of appropriate load reduction measures in measure promotion activities
4. Include wildfire health impacts in participant health impacts and resilience benefit calculations in load reduction measures now
5. Monitor data for potential inclusion of benefits in environmental compliance costs, societal benefit, societal health calculations and measure life in the future
6. Include load reduction measure-based damage mitigation practices such as building hardening, reduction of indoor air quality impacts, and PSPS durability in utility wildfire mitigation plans

This multistep process can increase the effectiveness of utility wildfire mitigation efforts while increasing affordability by reducing electric use for participating customers.

Current Availability of Data for Benefit Inclusion in Energy Efficiency Cost Tests

Cost-effectiveness test	Summary Approach	Summary of costs and benefits included	Avoided utility environmental compliance costs	Societal environmental benefits	Societal health benefits	Participant health benefits
Total Resource Cost Test (TRC)	Comparison of program administrator and customer costs to utility resource savings	Costs and benefits to utility system and impacts on program participants	Not enough data currently available, may be feasible with additional data			Reliable data exists on a measure-by-measure level
	Comparison of society's costs of energy efficiency to resource savings and non-cash costs and benefits	Test impacts plus impacts on society	Not enough data currently available, may be feasible with additional data	Not enough data currently available, may be feasible with additional impact data	Reliable data exists and is readily available	Reliable data exists on a measure-by-measure level
Utility Cost Test (UTC)	Comparison of program administrator costs to supply side resource costs	Costs and benefits that affect utility system operation and service	Not enough data currently available, may be feasible with additional data			
Participant Cost Test	Comparison of costs and benefits of the customer installing the measure	Costs and benefits to program participants				Reliable data exists on a measure-by-measure level
Rate Impact Measure	Comparison of administrator costs and utility bill reductions to supply-side resource costs	Costs and benefits plus estimates of utility lost revenues created by program	Not enough data currently available, may be feasible with additional data			



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