

PBMAC DOE / ARPA-E Technical Thesis Repair

GRANT & FUNDING APPLICATIONS / TECHNICAL REVIEW

PROBLEM

The initial framing asked reviewers to accept a controversial field-level conclusion before establishing a reproducible measurement object or a falsifiable mechanism test.

WORK

The repair memo reframed the proposal around a measurable independent variable, explicit activation hypothesis, evidence baseline, and go/no-go experiment structure.

OUTCOME

The proposal becomes a measurement program whose positive or null result is decision-useful, rather than an advocacy argument that depends on accepting the premise in advance.

REPRESENTATIVE CONTENT

- Separates mechanism, reproducibility source, and experiment into three distinct thesis components.
- Makes drive frequency the independent variable and calorimetric onset the dependent variable.
- Builds reviewer confidence around explicit falsification and reproducibility gates.