ThermKool™ Utility Pilot Proposal

Peak Cooling Load Reduction Demonstration

1. Purpose

This proposal seeks to establish a limited-scale utility pilot to evaluate **ThermKool™**, a retrofit, parallel load-reduction module designed to reduce **peak electrical demand from conventional air-conditioning and chiller systems during high-heat periods**.

The pilot will focus on **measured peak kW reduction**, operational reliability, and grid value during coincident heat and demand events.

2. Grid Challenge Addressed

Utilities increasingly face:

- Rising summer peak demand driven by air conditioning

- Heat waves that strain generation, transmission, and distribution

- High marginal costs for peak capacity

- Limited non-wires alternatives for cooling-driven load

Cooling loads are uniquely problematic because they peak **exactly when grid stress and prices are highest**.

3. ThermKool™ Solution Overview

ThermKool™ is:

- A **retrofit, parallel module** integrated with existing vapor-compression HVAC equipment

- Designed to operate during **peak heat / peak demand windows**

- Independent of customer behavior change

- Compatible with existing HVAC assets and utility programs

ThermKool™ does **not** replace existing cooling equipment and does **not** rely on batteries or inverters.

4. Pilot Scope

- **Sites:** Hospitals, cold storage, large commercial, or institutional buildings

- **System size:** Multi-ton A/C or chiller systems

- **Duration:** One cooling season (or defined heat-event window)

- **Measurements:**

  o   Baseline vs. post-installation peak kW

  o   Compressor runtime trends

  o   Load behavior during heat events

5. Utility Value Metrics

The pilot will evaluate:

- Peak kW reduction during coincident heat events

- Potential deferral of capacity upgrades

- Contribution to non-wires alternatives

- Operational resilience benefits

- Scalability across similar customer classes

6. Data Handling & Confidentiality

All proprietary technical details remain confidential.
Public reporting will be limited to **aggregated, non-enabling performance metrics** unless otherwise agreed under NDA.

7. Next Steps

- Site selection and screening

- NDA execution

- Pilot agreement

- Installation and monitoring plan