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A Dremel Story

Supplemental Comment to TN 271993 – A Dremel Story

This comment supplements my August 14, 2026 filing, TN 271993, and provides a concise real-world illustration of the hot-water energy waste and the effectiveness and simplicity of the proposed solution.

Additional submitted attachment is included below.

Supplemental Comment to TN 271993 — A Dremel Story

This comment supplements my August 14, 2026 filing, TN 271993, and provides a concise real-world illustration of the hot-water energy waste and the effectiveness and simplicity of the proposed solution.

A Dremel Story

I noticed something happening every day at my kitchen sink. My wife, grandkids and visitors would flip the single-handle faucet on near the middle, use the water for a few seconds, and shut it off—never waiting for hot water to arrive.

Over an entire day the faucet had drawn about **three liters of hot water from the water heater** and left it cooling in the pipes.

I measured it for a week. In my house alone, that wasted about **157,000 BTU—46 kWh—every year**. California has roughly ten million single-family homes, before counting apartments, schools, universities, military facilities and commercial buildings.

So I asked myself: **Why should a faucet draw hot water when the user doesn't want hot water?**

I went to my computer, designed a solution, opened my kitchen faucet, cut **two small slots with a Dremel rotary tool**, added **one tiny stainless-steel screw**, and put it back together.

My wife could still get hot water whenever she wanted it, and the faucet looked and operated normally. But when I repeated the seven-day test, hot-water waste fell from **21 liters to less than 100 milliliters—a reduction of more than 99%**.

The production cost of the concept can be **pennies per faucet**.

I filed my patent applications in 2025 and approached a U.S. faucet manufacturer. Their answer was revealing: changing a production design costs money, and they didn't believe consumers would buy enough "green" faucets to justify it.

That changed my strategy.

On August 14, 2026, I submitted the concept to the **California Energy Commission for consideration under Title 24**.

Because if manufacturers have little economic reason to prevent this waste voluntarily, **a building-efficiency standard could give every manufacturer the same reason at the same time**.

And that's how **a Dremel tool, two slots and one screw at my kitchen sink could potentially save California an enormous amount of energy**.