

From: XDA Investments LLC [REDACTED]
Sent: Friday, September 18, 2026 2:18 PM
To: PUC-PUC <PUC@state.sd.us>
Subject: [EXT] EL26-003 Grid Demand and Efficiency

EL26-003 - In the Matter of the Application of Black Hills Power, Inc. dba Black Hills Energy for Authority to Increase Rates For its Utility Service in South Dakota

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Commissioners,

I am writing as a concerned landlord and property owner in the Northern Black Hills. One of my passions is energy efficiency. I am interested in saving consumers money and decreasing the load on our grid. I think a stronger program to assist people in purchasing decisions benefits both BHE and individuals affected by a potential rate hike. I do understand that the following proposal does not fit neatly into the rate hike discussion box but it is an important component of energy demand and consumer cost. I hope this proposal does not fall to far this docket to be germane. Thank you for your consideration. Please thank your staff as they do great work on all our behalf.

Sincerely,

Micah J. Peters

Proposal: Strengthening Utility Rebates to Reduce Cost of Living and Grid Demand

Commissioners,

I am writing to highlight a structural issue in our housing and utility system—and an opportunity for the Public Utilities Commission and Black Hills Energy to make a meaningful impact.

1. The Core Problem: Misaligned Incentives

There is a fundamental disconnect between:

- **Who selects and installs appliances (property owners)**
- **Who pays the utility bills (tenants)**

This creates a predictable outcome:

The lowest upfront-cost appliances are often installed—even when they are the most expensive to operate.

In rental housing, tenants rarely have control over major appliances, yet they bear the full burden of inefficient equipment through higher monthly utility bills. This results in:

- Higher cost of living for residents
- Increased overall energy demand
- Inefficient use of grid resources

2. Why This Matters Now

Cost of living is one of the most pressing concerns for constituents. Utility costs are a significant and recurring expense, yet they are often invisible at the time of lease signing.

Because of:

- Limited upfront capital when making building decisions
- Short-term decision making
- Split incentives between landlords and tenants

...many cost-saving energy investments are simply not made—even when they offer exceptional returns.

This is precisely where a well-designed rebate program can make an outsized difference.

3. High-Impact Opportunities (“Low-Hanging Fruit”)

A. Heat Pump Water Heaters (HPWHs)

ENERGY STAR HPWH Savings Based on Household Size			
Household Size	Annual Savings	Payback (Years)	Lifetime Savings
2	\$170	4.8	\$1,360
3	\$250	3.2	\$2,430
4	\$330	2.4	\$3,510
5	\$410	1.9	\$4,590
6	\$500	1.6	\$5,670
Assumes: Electricity Rate of \$12 cents/kWh; Incremental cost = \$800; 13 -year lifespan; no incentives.			

www.smartwatersource.com

- ~46% of U.S. households use electric resistance water heaters
- Standard units operate at **COP ≈ 1**
- Heat pump water heaters operate at **COP ≈ 3.5**

👉 **Annual savings:** ~\$300 per household

Cost comparison:

- Standard electric: ~\$585
- Heat pump: ~\$1,600

Payback period:

- ~3.38 years
- Equivalent to ~30% annual return

This is one of the strongest energy investments available—yet adoption remains low.

Why?

- Landlords don't pay the utility bill
- Upfront cost barrier

👉 **Policy implication:**

A targeted rebate can unlock large savings for tenants while reducing grid demand.

B. Supplemental Air-Source Heat Pumps

Heat pumps provide both heating and cooling at far higher efficiency than resistance systems.

While full electrification may not yet be ideal in cold climates, a **supplemental approach is highly practical:**

- Only ~15–16% of the year is below 20°F in Spearfish
- Heat pumps can handle the majority of heating needs
- Backup systems remain for extreme cold

👉 **Benefits:**

- Reduced peak demand
- Lower tenant utility costs
- Improved summer cooling efficiency

Best targets:

- Propane-heated homes
- All electric homes
- Rental and multi-family housing

C. Heat Pump Clothes Dryers

Conventional dryers:

- Use electric resistance heat (very energy intensive)
- Require venting → pulls unconditioned air into the home

This creates a double penalty:

1. High direct energy use
2. Increased load on air conditioning systems from unconditioned air infiltration as well as heat generated by dryer.

Heat pump dryers:

- Use significantly less energy
- Require no venting
- Reduce cooling demand

👉 Particularly valuable in:

- Apartments
- Homes using window or portable AC

D. Refrigeration & Appliance Turnover Programs

Older appliances are a persistent, hidden burden.

A previous recycling program was a strong step—but lacked visibility and scale.

👉 Opportunity:

- Restart and expand appliance recycling programs
- Include:
 - Refrigerators
 - Freezers
 - Window AC units

Key improvements:

- Provide direct incentives to collection sites:
 - Scrap yards
 - Municipalities
 - Secondhand dealers
- Require proper refrigerant decommissioning
- Offer small but effective replacement incentives (e.g., \$50–\$100)

4. Strategic Focus: Rental & Multi-Family Housing

The most impactful target for rebate programs is:

Rental housing and multi-family properties

Why:

- Strongest misalignment between decision-maker and bill payer
- Tenants lack control but bear the cost
- Market does not naturally correct this inefficiency

Without intervention:

- Inefficient appliances persist
- Tenants overpay
- Grid demand increases unnecessarily

5. Program Recommendation

To maximize impact, rebate programs should:

✓ **Increase funding levels**

Current programs are incremental—they do not drive widespread adoption.

✓ **Target high-impact equipment**

- Heat pump water heaters
- Supplemental heat pumps
- Heat pump dryers
- Efficient refrigeration

✓ **Prioritize rental properties**

Focus where:

- Market incentives fail
- Benefits to tenants are greatest

✓ **Incentivize replacement, not just upgrades**

Actively remove inefficient legacy equipment from service.

6. Closing

A stronger, more targeted rebate program represents a rare alignment of benefits:

- **Lower cost of living for residents**
- **Reduced strain on the electrical grid**
- **Improved energy efficiency at scale**

The current approach is effective—but modest. Expanding and targeting these programs more aggressively would allow the PUC and Black Hills Energy to deliver meaningful, measurable improvements for the communities they serve.

Thank you for your consideration.