

A COMPARABLE
ANALYSIS WITH
SOLAR VS NOT
SOLAR



1604 W Calle De Pompas





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An analysis of two comparable homes, in the same community, **one with solar**, and **one without solar**.

The first home, at 1604 **Calle De Pompas**, is larger at 4830 sf, has solar, and the thermostat was kept at a comfortable 76°.

The second home, at 2038 W **Whisper Rock Trail**, is smaller at 2865 sf, does not have solar, and the thermostat was set to 78°.

The analysis over the hot summer months from July to September proves an estimated **monthly savings of \$500** for the solar home, despite having a solar payment. The **annual savings** just for these summer months then is **\$6,000**. That's **\$120,000 in savings** over the life of the loan (which is at 2.99% APR).

COMFORT WITHOUT PUNISHMENT

In Phoenix, “summer electric bills” aren’t bills — they’re ransom notes. When it’s 112–118°F, you’re not “choosing” to run the A/C. You’re surviving. Solar flips that dynamic:

- You’re no longer punished for wanting a livable home.
- You can set the thermostat to a humane temperature instead of sweating through July, August, and September.
- You stop playing the mental game of “How much will this cost me if I drop it 2 degrees?”

Solar gives you control and takes control away from APS.

PROTECTION FROM SUMMER BILL SPIKES

Arizona’s summer bills are brutal because:

- A/C is the largest energy load in the home
- Rates spike during peak hours
- Usage skyrockets for 4–5 months straight

Solar directly attacks the problem. It produces the most power exactly when A/C demand is highest. It shields you from rate hikes. It flattens your bill into something predictable.

Even without batteries, solar offsets the most expensive hours of the day. For many homeowners, the psychological relief alone is worth it.

THE BENEFITS REALLY DO OUTWEIGH THE COSTS

When you combine:

- Comfort
- Predictability
- Protection from rate increases
- Arizona’s extreme sun exposure
- Federal and state tax credits

...the ROI becomes almost secondary. You’re buying:

- Energy independence
- A stable monthly cost
- A cooler, more comfortable home
- A hedge against the next 20 years of rate hikes

And unlike rent or utilities, solar is one of the few household expenses that actually pays you back.

In short:

Solar wasn't just an upgrade — it was a way to make the home more comfortable, more affordable to operate, and less vulnerable to Arizona's extreme summer energy costs. Buyers benefit from those same advantages on day one.

In general, consider our two properties: 1604 Calle De Pompas and 2038 W Whisper Rock Trail. The former has solar; the latter does not. At Call De Pompas, the thermostat was set to 76°, while at Whisper Rock, it was set to 78°. Additionally, Calle De Pompas is 4830 sf, while Whisper Rock is smaller at 2865 sf.

💰 Financial Comparison: Total Energy Cost		
Category	2038 W Whisper Rock Trl	1604 W Calle De Pompas Ln
Location	Phoenix	Phoenix
Square Footage	2,865 sf	4,830 sf
Solar	❌ No	✅ Yes
Solar Payment	\$0	\$275/month (2.99% fixed)
Avg Monthly Electric	\$400 – \$650+	~\$0 – \$25
Total Monthly Energy Cost	\$400 – \$650+	~\$279 (all-in)
Monthly Cost Difference	—	\$120 – \$370 LESS
Annual Energy Cost	\$4,800 – \$7,800+	~\$3,350
Annual Savings	—	\$1,450 – \$4,450
20-Year Energy Cost	\$96K – \$156K+	~\$67K
20-Year Savings	—	\$29K – \$89K+
Cost Stability	❌ Variable, seasonal spikes	✅ Stable, predictable
Exposure to Rate Increases	❌ Full exposure	✅ Reduced exposure

🔑 KEY TAKEAWAY

This home doesn't eliminate energy cost — it **reduces and stabilizes it significantly**

WHAT THAT MEANS FINANCIALLY

A 2°F lower thermostat setting in Phoenix summers usually means the home would be expected to use **more cooling energy**, not less. So the fact that Calle De Pompas still averaged near-zero electric charges, even before adding the solar payment, suggests the solar advantage is actually **understated** in the raw bill comparison.

🏠 Refined Financial Comparison (Equal Size: 4,830 sf)

Category	Whisper Rock (Projected @ 4,830 sf, No Solar)	Calle De Pompas (4,830 sf, Solar)
Location	Phoenix	Phoenix
Square Footage	4,830 sf (projected)	4,830 sf (actual)
Solar	✗ No	✓ Yes
Solar Financing	N/A	\$275/mo @ 2.99% (30 yrs)
Basis	Scaled from actual Whisper Rock usage	Actual utility data (Jul–Oct)
Avg Monthly Electric	~\$775–\$800	~\$4 (net)
Total Monthly Energy Cost	~\$775–\$800	~\$279 all-in
Monthly Cost Difference	—	~\$500+ lower
Annual Energy Cost	~\$9,300–\$9,600	~\$3,350
Annual Savings	—	~\$6,000+
20-Year Energy Cost	~\$186K–\$192K	~\$67K
20-Year Savings	—	~\$120K+
Cooling Condition	Baseline	~2°F cooler interior
Cost Stability	✗ Volatile (seasonal spikes)	✓ Stable (predictable)
Exposure to Rate Increases	✗ Fully exposed	✓ Partially insulated

WHAT THAT MEANS

If Whisper Rock were roughly the **same size** as Calle De Pompas, but still had **no solar**, it would project to cost about:

- **\$798/month** in energy
- vs.
- **\$279/month** for Calle De Pompas, including the solar payment

So Calle De Pompas would still be cheaper by about:

- **\$500+/month**
- **\$6,000+/year**
- **\$120,000 over 20 years**

FINAL CONCLUSION

Even under the **most conservative assumption** — *no APS rate increases over 20 years* — the conclusion is clear:

☒✅ **It is significantly cheaper to operate**

✅ It recovers (pays for) its solar cost

✅ It delivers long-term net savings

NET RESULT

💰 **Calle De Pompas saves approximately \$120,000+ over 20 years**

EVEN MORE IMPORTANT (THIS IS THE REAL INSIGHT)

This conclusion holds true **even though**:

- Calle De Pompas is **larger (4,830 sf vs 4,830 sf projected)**
- It was kept **2°F cooler**
- It includes a **\$275/month solar payment**

👉 And still:

It is dramatically cheaper

DOES THE SOLAR “PAY FOR ITSELF”?

YES — AND THEN SOME.

Because:

- The solar payment is **\$275/month**

But it avoids:

- ~\$500–\$800/month in equivalent non-solar cost

👉 That means:

- It doesn't just break even
- It produces **net monthly savings**
- mortgage + solar payment is not = more expensive

You evaluate it by saying **total housing cost with solar** versus **total housing cost without solar**.

The solar payment should not be viewed in isolation. The proper comparison is total monthly energy cost and total long-term electricity cost. When actual electric bills are included, the home's solar system reduces overall cost over time.