PERMIT POWER



EXECUTIVE SUMMARY

Speed to Savings

A State Policy Roadmap to Save Families Money On Their Utility Bills By Cutting Home Solar and Battery Red Tape

November 2026

permitpower.org

How Cheap Home Solar and Batteries Can Lower Utility Bills

Installing a traditional roof-mounted home solar and battery system can reduce a family's electricity bills by more than 80% and deliver significant long-term savings to all utility customers.[1] For those who rent a home or live in an apartment, an inexpensive plug-in solar system can save a family enough money every year to pay for 1-2 months of utility bills.[2]

Yet today, because of burdensome red tape, home solar and batteries are out of reach for too many households. Slow and inconsistent local government permitting and inspections, and slow and expensive utility interconnection, mean that American families pay $36,000 for a roof-mounted home solar system that would cost Australian families less than $10,000.[3] Plug-in solar, which has been used by millions of families around the world to save money on their utility bills, is so burdened by red tape that it's effectively illegal in much of America.



68%

of poll respondents say energy bills are straining their household budget



$60,000

average family savings over the life of a home solar and battery system



$1trn

saved on utility bills over system lifetimes if we lower costs

Bringing roof-mounted home solar costs down to levels in peer countries would enable 18 million additional American families to install more than 200 GW of solar through 2040 and save $1 trillion on their utility bills over the lifetime of their systems.[4] If plug-in solar were legalized and adoption was similar to that in peer countries, we project over 14 million American families (including renters) could save over $10 billion over the life of their plug-in solar systems.[5] These savings are tangible – families see the panels affixed to their homes every day and can track their savings in real time on their phone.

Cutting home solar and battery red tape and legalizing plug-in solar helps deliver bill reductions with little to no public or ratepayer spending. State government is in a unique position to deliver on these reforms, as the federal government does not have the jurisdiction and local governments do not have the scale. The voters were clear that affordability is their top concern,. The time to act on giving more families access to the bill savings of home solar and batteries is now.

Priority Policy Recommendations To Lower Utility Bills With Cheap Home Solar and Batteries

Below are the most impactful reform state policymakers can deploy to cut red tape and make home solar and batteries more accessible to families.

01 Fast Permitting & Inspection

Families should be able to get a permit for a home solar and battery system instantly, rather than having to wait weeks, months or years. Slow and inconsistent permitting can add over $5,000 to the cost of a standard installation. Once a system is installed, families should not have to wait for a on-site inspection that can delay the start of their bill savings by weeks or months and add over $1,000 of cost.

Instant Permitting

Policymakers can ensure that families get permits to install a code-compliant home solar and battery system instantly by:

- Directing the state to deploy an instant permitting platform for home solar and batteries (Connecticut, New Jersey, Virginia);
- Requiring local governments to deploy their own instant permitting platform for home solar and batteries (California, Maryland passed & strengthened); or
- Allowing licensed third-party inspectors or engineers to permit home solar and battery systems, on behalf of local governments (Florida passed & strengthened, North Carolina, Texas).

Remote Inspection

Policymakers can ensure that families have access to fast and safe inspections by:

- Requiring local governments to give families the choice to request a remote inspection based on photos and recorded video taken on site and sent to the building inspector (California, Florida, North Carolina); or
- Allowing licensed third-party inspectors or engineers to inspect home solar and battery systems on behalf of local governments (Florida passed & strengthened, North Carolina, Texas).

02 Instant Inexpensive Interconnection

Families should not have to wait for utility interconnection approval or have to pay for unnecessary main panel upgrades or grid work. States should require all utilities to meet the below standards.

01 Interconnect instantly.

- Utilities should adopt the national best practice of approving the interconnection of small home solar and battery systems by applying simple technical screens, rather than running a full grid impact study. (Massachusetts, Illinois)
- Utilities should process interconnection applications instantly (DOE's I2X Roadmap, California's SMUD, Commonwealth Edison).
- Utilities should let families turn on their home solar and batteries immediately after they have been installed and passed their building inspection (Arizona, Ohio's FirstEnergy).

02 Let families avoid expensive grid work.

- Utilities should adopt the national best practice of assessing the impact of a home solar and battery system based on how much the system exports rather than how big it is. (Illinois, Michigan, New Mexico)
- Utilities should use the latest utility standards and update their interconnection technical screens to avoid triggering unnecessary grid work. (Illinois, Michigan)

03 Allow families to use cost-saving equipment.

- Utilities should follow national best practice of allowing families to use meter socket adapters, installed by their licensed contractor, to avoid expensive main panel upgrades. (Colorado, Central Maine Power, Maryland)

03 Plug-In Solar Legalization

Families should be able to start saving with a plug-in solar system the moment they bring it home. States should ensure that households can use plug-in solar:

01 Without utility approval.

02 Without a local government building permit.

03 With a notification to their landlord, homeowners association, or co-op, which can't set unreasonable rules that prevent families from using plug-in solar systems.

04 Without needing to make changes to the home's electrical wiring, for the smallest systems.

10 states have already passed laws to exempt plug-in solar from utility interconnection, with Colorado and New Jersey passing laws to fully legalize plug-in solar.

References

1 Modeled annual savings using the National Laboratory of the Rockies' (NLR) dGen and annual electricity bills from the Energy Information Administration.

2 NLR's PySAM.

3 US prices from Lawrence Berkeley National Laboratory's Tracking the Sun, 2025. Australian prices from SolarChoice.

4 dGen adoption modeling.

5 NLR's PySAM.

PERMIT POWER

Permit Power is an energy affordability nonprofit organization that makes it cheap and easy for Americans to power their lives. We do research, education, and advocacy to break down the bureaucratic barriers that get in the way of American families installing home solar, batteries, and other energy upgrades.