



VOTE SOLAR

Reading Your Electricity Bill

April 28, 2022

About Vote Solar



VOTE SOLAR

Mission: To realize a 100% clean energy future through a solutions-driven, people-first approach.

Our Actions:

- We Lead and We Learn
- We get in the ring
- We recognize Equity is not just a what but a way
- We bring you along



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Vote Solar: Arizona, California, Colorado, Connecticut, Florida, Georgia, Illinois, Massachusetts, Michigan, Minnesota, Nevada, New Mexico, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Utah, and Virginia.



Electricity Usage (KWh)

1 kWh = 1,000 watts



Rate Plan



Efficiency/Savings Opportunities*

Types of Charges on Bill

- Volumetric Charges
- Fixed Charges
- Time-of-use Charges
- Demand Charges
- Grid Access Charges
- Supply Charges

Calculating a Kilowatt



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wattage
of appliance x number
 of hours

1000

↑
1 kWh = 1,000 watts



- 5 hours of television
- Television = 72 watts
- .36 kWh to watch television

APS Sample Bill

1. Account information
2. Charges for electricity services
3. Amount of electricity used
4. Average daily electricity use per month
5. Comparing your monthly use

1	Your electricity bill September 15, 2020	John Doe	Your account number 0123456789
Service plan: Premier Choice Large		Meter number: XX0000	Meter reading cycle: 09

2 Charges for electricity services

Cost of electricity you used

Customer account charge	\$9.28
Delivery service charge	\$72.76
Environmental benefits surcharge	\$4.58
Federal environmental improvement surcharge	\$0.77
System benefits charge	\$6.45
Power supply adjustment*	-\$1.07
Metering*	\$6.88
Meter reading*	\$2.30
Billing*	\$2.59
Generation of electricity*	\$208.71
Federal transmission and ancillary services*	\$25.65
Federal transmission cost adjustment*	\$5.13
LFCR adjustor	\$2.92
Tax Expense Adjustor	-\$12.54
Cost of electricity you used	\$334.41

Taxes and fees

Regulatory assessment	\$0.81
State sales tax	\$19.15
County sales tax	\$5.47
City sales tax	\$6.84
Franchise fee	\$6.69
Cost of electricity with taxes and fees	\$373.37

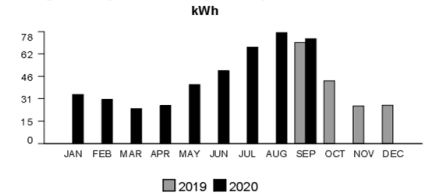
Total charges for electricity services **\$373.37**

* These services are currently provided by APS but may be provided by a competitive supplier.

3 Amount of electricity you used

Meter reading on Sep 15	58727
Meter reading on Aug 14	56389
Total electricity you used, in kWh	2338

4 Average daily electricity use per month



5 Comparing your monthly use


	This month	Last month	This month last year
Billing days	32	31	32
Average outdoor temperature	91°	95°	91°
Your total use in kWh	2338	2394	2249
Your average daily cost	\$11.67	\$12.29	\$11.36

Sample SRP Bill

1. Account Summary
2. Payment Arrangement Summary
3. Meter Information
4. Energy History
5. Comparison (Daily Averages)

Please Pay by **Apr 10, 2020** Account# 999-999-999 **\$104.21**

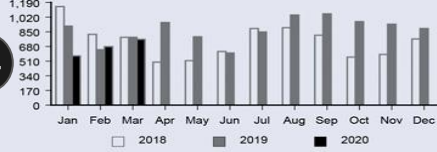
SERVICE FROM 2/17/2020 - 3/18/2020 (31 Days)



srpnet.com 800-258-4777

JOE CUSTOMER
123 MAIN ST PHOENIX
EZ-3 Plan (3-6pm)

ENERGY HISTORY (kWh)



COMPARISON (Daily Averages)

	Days	kWh	Cost	Temp
Mar 2020	31	25	\$1.75	63.6°
Feb 2020	30	23	\$1.65	57.8°
Mar 2019	31	16	\$2.51	58.5°

Meter # **Type** **Current Read** **Prior Read** **Energy**

9999999	On Pk kWh	00905	00869	36
	Off Pk kWh	11980	11629	351
	Total kWh			387

1 YOUR ACCOUNT SUMMARY AS OF 3/20/2020

Previous Balance	\$649.46
3/9 Payment - Thank you	-\$49.46
Balance Before Charges	\$600.00
Monthly Service Charge	\$20.00
On-Peak Energy Charge	\$3.83
Off-Peak Energy Charge	\$25.91
Phoenix City Tax	\$1.34
County and State Tax	\$3.13
This Month's Charges	\$54.21
NEW ACCOUNT BALANCE	\$654.21

2 Your Payment Arrangement Summary

New Account Balance	\$654.21
Please Pay	\$104.21
Account Balance After Payment	\$550.00

3 MESSAGES FOR YOU


✓ You saved \$0.58 this month on the EZ-3 Plan. Savings for the last 12 months are \$17.92.

PLEASE RETURN THIS PORTION WHEN MAILING YOUR PAYMENT

Please Pay by **Apr 10, 2020** **\$104.21**

To donate to SHARE, please add \$1, \$2 or \$5 to your payment

Make Check Payable To



**PO BOX 2951
PHOENIX AZ 85062-2951**

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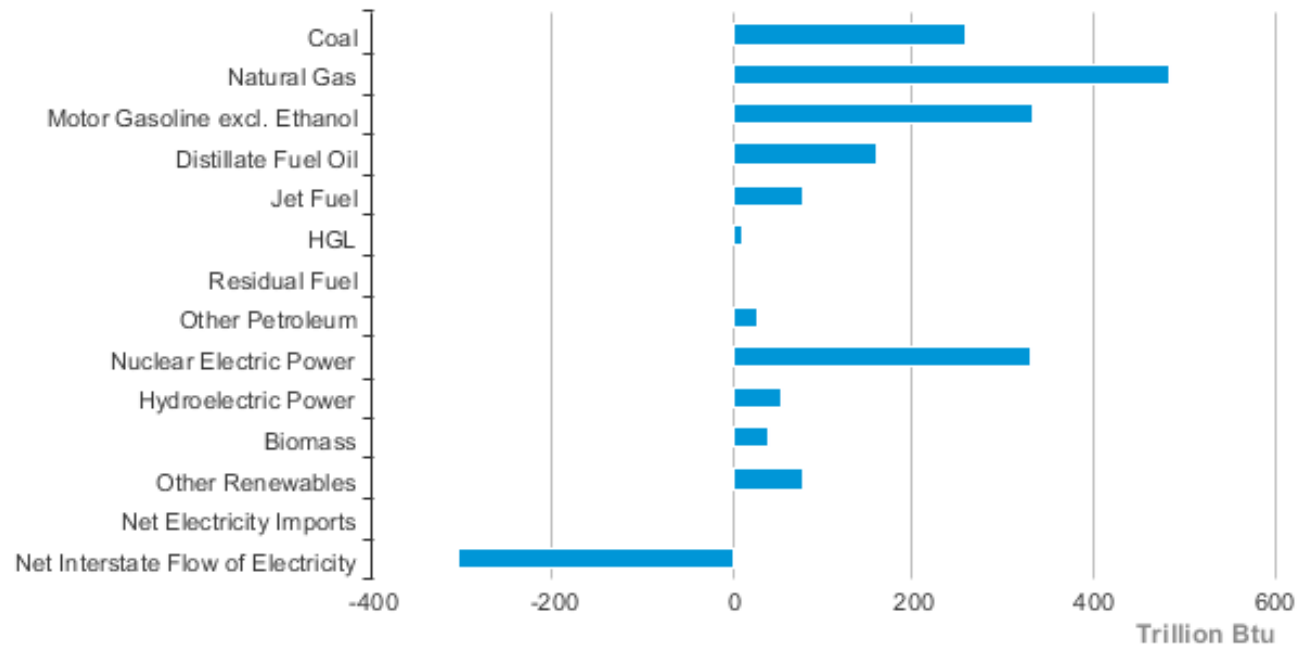
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How is your electricity generated?



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Arizona Energy Consumption Estimates, 2019



Source: Energy Information Administration, State Energy Data System



ARIZONA

Residential electricity bills in Arizona

- Average monthly residential electricity bill in Arizona is **\$120**, which ranks **13th in the U.S.**
- Average monthly residential electricity bills in the U.S. range from approximately \$75 to \$203.

Residential electricity rates in AZ

- Residential electricity rates in Arizona average **11.29¢/kWh**, which ranks the state **27th in the nation.**
- The approximate range of residential electricity rates in the U.S. is 8.37¢/kWh to 37.34¢/kWh.

Residential electricity consumption in AZ

- Averages **1,061 kWh/month**
- Ranks 16th in the U.S. in electricity consumption



Solar Incentives

- State property tax exemption
- State sales tax exemption
- **Arizona Residential Solar Energy Tax Credit**
 - Individual **tax credit of 25%** of the cost of the installation of a solar system
 - Worth up to \$1,000
 - Credit can be **claimed the year of installation**

Renewable Energy Standard and Tariff

Utility Programs

- **Arizona Public Service:** [Solar Communities Program for residential customers](#)
- **Salt River Project:** SRP has a [\\$250 rebate](#)
- **Tucson Electric:** Offers [rebates](#) for a energy efficiency measures.

Electricity Generation in Arizona

- In 2020, AZ ranked 4th in the nation in solar-powered electricity generation at utility-scale and small scale installations
- Natural gas, nuclear power, and coal provided 88% of Arizona's utility-scale electricity net generation in 2020
- \$3.50 per watt × 7,000 kilowatts = \$24,500 average solar panel cost in Phoenix, Arizona.



- **Virginia Clean Energy Economy Act (SB 851 /HB 1526):**
 - First state in the South to commit to 100% zero-carbon electricity.
 - Establishes Renewable portfolio standard of 2050 deadline for achieving a zero-carbon grid.
- **Dominion Energy Shared Solar Program**
 - Low-income 30% or 45 MW reserved for low-income customers
 - Multifamily Shared Solar

Electricity Generation in Virginia

- 7% of electricity is generated from renewable energy
- Natural gas accounted for 61% of Virginia's utility-scale electricity net generation



VIRGINIA



Program Overview

- Seeks to provide the benefits of solar electricity to 100,000 low-income households and reduce their energy bills by 50% by 2032. D.C. has a greenbank, the Energy Assistance Trust Fund, and the Renewable Energy Development Fund (REDF).
- Solar Works D.C **prepares District residents aged 18 and over for careers in solar and beyond.**
- Homeowners and tenants can qualify by meeting the requirements below:
 - Supplemental Nutrition Assistance Program (SNAP)
 - Temporary Assistance for Needy Families (TANF)
 - Supplemental Security Income (SSI)
 - Low Income Home Energy Assistance Program (LIHEAP)
 - Other Government assistance program
 - Or income qualify



Solar* Rewards Community Solar Program (CSG)



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Xcel Energy's Solar* Rewards Community program requires each participating solar garden to have a minimum of 5% of the garden kW allocated to low income subscribers.

- **Eligibility:** Customers must qualify for LIHEAP or be a member of Energy Outreach Colorado, GRID Alternatives, or The Atmosphere Conservancy. Municipal housing authorities are also eligible
- Customers receive a bill credit/reduction
- Workforce component
- Organizations can participate on a case-by-case-basis

Xcel Settlement Agreement
13.5 MW of RFPs for new LMI community solar systems, Xcel Energy assuming 5% carveout through new program



Example: Climate Act, New York



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Program Overview

In 2019, New York passed the climate law, which specifies that 35 percent of clean energy revenue should flow to underserved communities.

- The law **sets a procurement target for energy storage of 3,000 MW by 2030** and directs the public service commission to **specify the minimum fraction of storage projects that should deliver benefits to underserved communities.**
- The PUC in NY issued an Order in 2018 based on the [New York State Energy Storage Roadmap](#) that was developed:
 - Removing impediments to accessing finance as well as data that highlights areas of the grid with the greatest need for the benefits of storage
 - Authorizing a total \$350 million in bridge incentives to accelerate the energy storage market
 - Regulatory changes to customer rates and utility solicitations that reflect the environmental benefits and resiliency energy storage brings to the grid
 - Training needs, training inventory, and [Workforce Development](#) investments in energy storage





Bipartisan Infrastructure Law funds for solar

- 1.2 Trillion, (\$550 billion in new spending)
- Includes \$63 billion for energy and power
- **Energy grants for states**
 - [Weatherization Assistance Program](#) (FG)
 - [Energy Efficiency and Conservation Block Grant](#) (FG)
 - [State Energy Program](#) (FG)

Improve the Investment Tax Credit

- Provides a 26% tax credit for systems installed in 2020-2022, and 22% for systems installed in 2023
- Can be claimed on federal income taxes for a percentage of the cost of a solar photovoltaic (PV) system
- **Needed Improvements:** Refundable tax credit; open to schools and nonprofits, and paid immediately



Missing State Policy



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Policy	Why?	
Renewable Portfolio Standard/Target	Requires utilities to use renewable energy/renewable energy credits to account for a certain percentage of their generating capacity according to a specific schedule	\
Disconnection Protections	Policies that suspend disconnection for nonpayment to protect vulnerable populations	
Grid Modernization and Resiliency	A smarter more resilient grid delivers reliability	
Community Solar	Customers can take advantage of clean energy without having to install a PV system, <i>especially those who do not own their own property</i>	
Financing (<i>Green Banks</i>)	Identifying different mechanisms that can be used to deploy low-cost capital for solar energy projects	
Low- to Moderate Income Solar	Identifying different approaches to bring the benefits of solar power to LMI customers	
Community Choice Aggregation	Allow local governments to procure power on behalf of their residents, businesses, and municipal accounts from an alternative supplier while still receiving transmission and distribution service from their existing utility provider.	

Call to Action

How can you get involved?

- **Resource: Low Income Solar Policy Guide:** This resource to support your learning on low-income solar issues. The guide offers case studies, state examples and best practices.
- **Policy**
 - **Community Solar Legislation**
 - **Equitable Financing approaches**





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Thank You!

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