

Winter Energy Usage

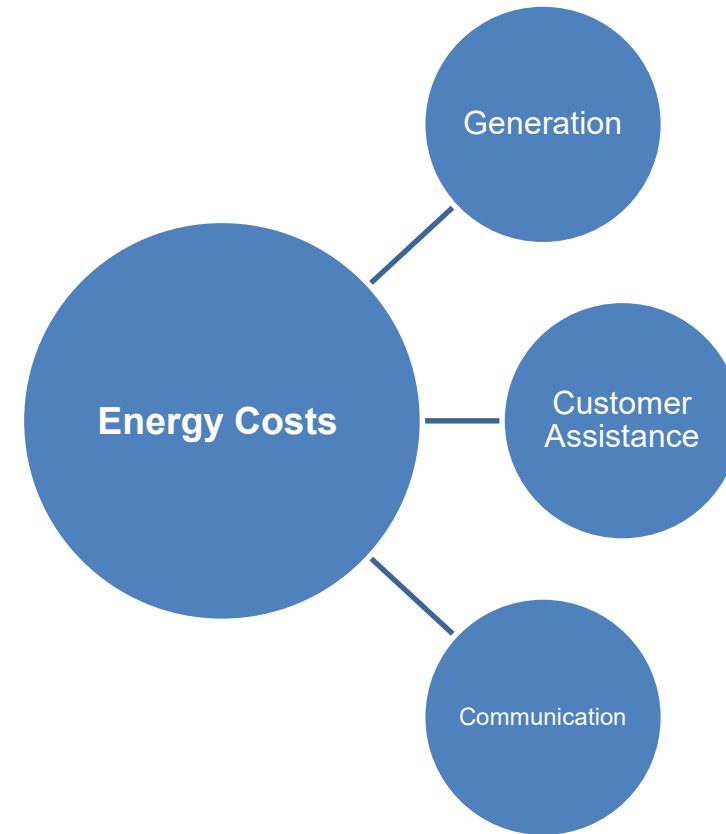
Jan. 5, 2023



Winter Usage Trend

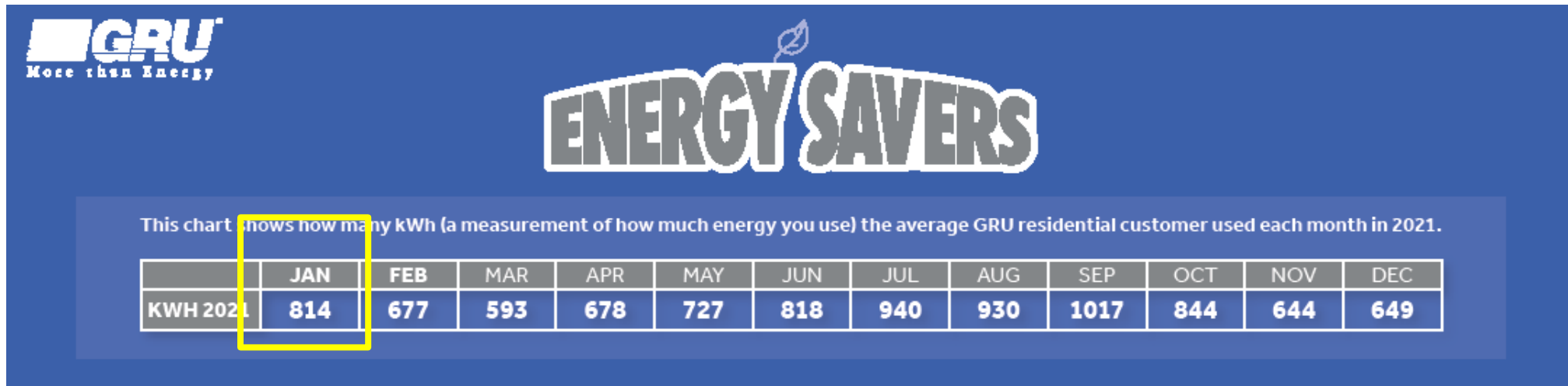
Coordinated Approach

1. Generation Planning
2. Customer Assistance
3. Public Education/Communication



Winter Usage Trend

Usage Patterns



Takeaway: Winter energy usage for GRU customers is historically lower than summer but reaches its peak in January and can have a significant impact on bills.

*Average based on residential users and amount of kilowatt hours sold.

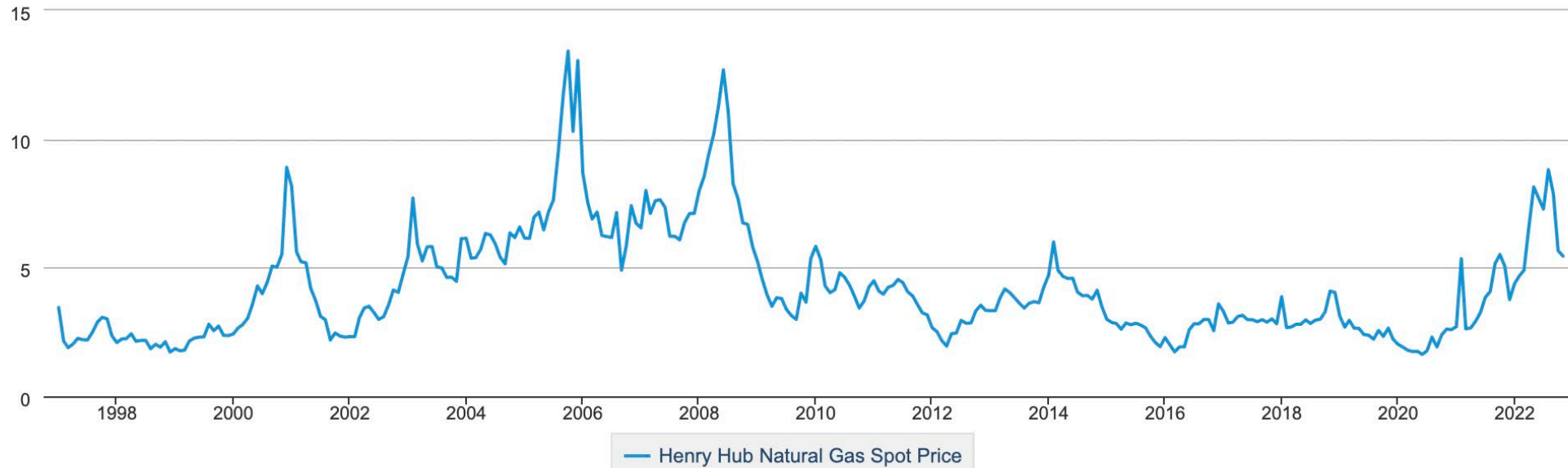


Fuel Costs: Year-over-Year

Henry Hub Natural Gas Spot Price

 DOWNLOAD

Dollars per Million Btu



This chart demonstrates the price variability of natural gas since 1998. The 2022 peak is \$8.81.

- Higher demand in winter because more heating-degree days
- When everybody is using max amount on pipeline, we can't buy from other sources
- Through hedging, we saved \$5.2 million in gas and electric fuel costs in 2022.



Generation Planning: Philosophy

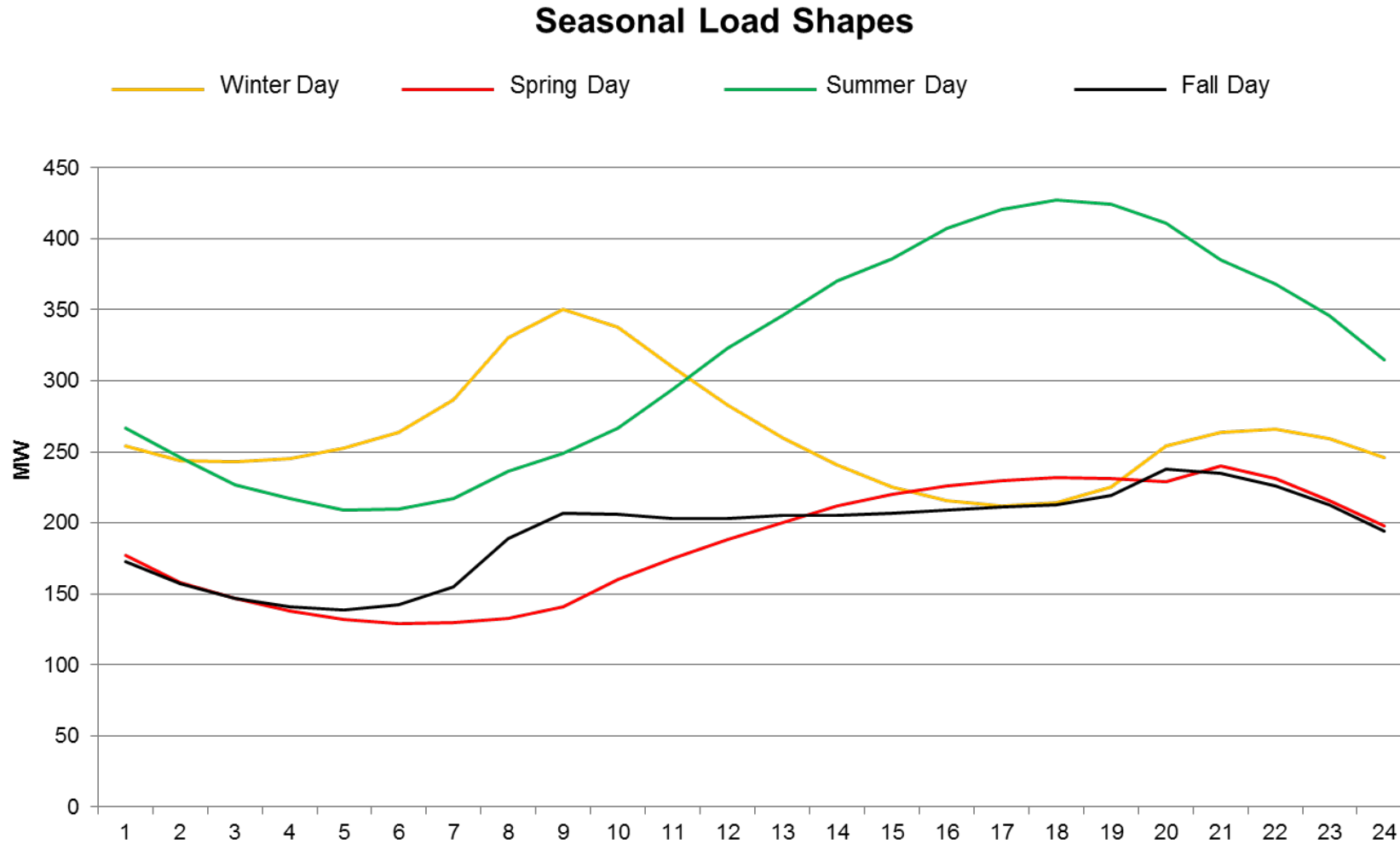
Economic Dispatch

The operation of generation facilities to produce energy at the ***lowest*** cost to ***reliably*** serve customers, recognizing any operational limits of generation and transmission facilities in addition to regulatory requirements.

Takeaway: We must weigh a number of factors when determining how to generate the most economic power for our customers.



Generation Planning: Seasonal Patterns



Generation Planning: In Practice

Unit Data:

- Heat Rate Curves
- Dispatch Limits
- O&M Costs
- Start-up Profiles
- Ramp Rates
- Scheduled Outages
- Forced Outage Rates
- On or Off Restrictions
- Min/Max Up or Down Times
- Reserve Requirements

Fuel Data:

- Coal Prices
- Gas Prices
- Nuclear Fuel Prices
- Oil Prices
- Other Fuel Prices
- Contract Limits

Power Purchases and Sales:

- G2 PPA
- Solar FIT
- Market Opportunities

Load Data:

- Native Load
- Alachua
- Seminole/Clay

GenTrader

Output by Unit (hourly, daily, weekly, monthly, seasonal, annual):

- Generation (MWh)
- Fuel Consumption (MMBtu)
- Fuel Expense (\$)
- Variable O&M (\$)
- Run Hours

Post-modeling processing and analysis:

- GenTrader Reports & Graphics
- Export to Access
- Excel Analysis and Reports

GenTrader®

- Energy model that determines the most economical scenario
- Used for Unit Commitment and long-term planning
- Deterministic Model



Fuel Costs: Incremental

Incremental Costs of Units at Minimum Load

The numbers in the cost column are for illustrative purposes only and are not based on actual fuel costs.

Unit	Cost
CC1 (Kelly, combined cycle; natural gas)	\$14.80 MWh
DH2 (Deerhaven; natural gas*)	\$23.70 MWh
DH1 (Deerhaven; natural gas)	\$19.25 MWh
DHR (Deerhaven Renewable; biomass)	\$20.72 MWh

Where do we get the next, most-economical megawatt? **CC1**

Which is next? **DH1**

*DH2 uses coal as an emergency fuel.



Customer Assistance: Internal

Home Energy Assistance

In-person Assistance: On-Site Home Energy Survey

- Check windows, doors, insulation, appliances, etc.
- 30 minutes up to 3 hours
- 392 performed last year
- 141 performed so far this fiscal year

Other Resources:

- Online Home Energy Calculator
- Kill-a-Watt EZ Meters (from library)
- ToolsforTenants.com (compares apartment energy efficiency)

LEEPplus

Low-income Energy Efficiency Program

- Up to \$10,000 in home upgrades
- 135 performed last year
- Invested ~\$828,000 on those upgrades
- 51 performed so far this fiscal year
- 246 in the queue
- GRU.com/LEEP

Takeaway: Our Energy and Business Services Department consistently makes a difference in customers' lives.



Customer Assistance: Coordinated

ARPA

- \$55,000 last year toward payment assistance
- Customers inside Gainesville city limits eligible
- Continue to solicit and work with customers to exhaust funding
- Survey linked from GRU.com homepage
- Email to 2,000 customers with past-due balances on 12/15
- Above efforts yielded **250** new applications on 12/16

Coordinated Efforts

- Working with outside agencies to provide payment relief, including ERAP, Our Florida, United Way, Catholic Charities, Essential Florida Community Action Agency, etc.
- **\$4 million** toward payment assistance last year
- ~9,400 customers

Traditional Assistance

- Not in the business of disconnecting customers; last resort
- Automatic 14-day payment extension
- Installment options
- Payment arrangements



Communications: Continued Education

Proactive Messaging

Bill Onsert

Month(s): November and December

Radio

- WUFT - December
- 99.1 JAMZ – January/February
- Magic 101.3 – January

Website

- GRU.com homepage
- Winter energy tips banner

Email campaign

- (57,000 customers)

Social Media

- Facebook
- Instagram

Press Release

- All media outlets



GAINESVILLE REGIONAL UTILITIES

Energy and Business Services

Dear GRU customer,

We have studied energy usage patterns from the previous couple of years to help determine when GRU customers can anticipate higher bills and what steps they can take to help keep them down. Based on what we found, our community uses more energy in January and February than in other winter months.

On top of that, natural gas prices are expected to be extremely high this winter, driving up fuel charges. As a reminder, GRU pre-purchases fuel to produce power and then passes this cost on to customers through the Electric Fuel Adjustment on your bill. GRU makes no money on this charge.

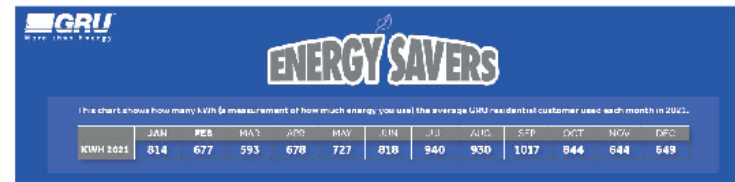
We are committed to helping you keep bills down, especially as other everyday costs continue to rise. With winter quickly approaching, our energy efficiency experts recommend trying these low- to no-cost tips for a comfortable but energy-efficient home.

- Set your thermostat to 68 degrees or lower.
- Set the temperature of your water heater to 120°F.
- Open your curtains during the day to use free heat from the sun.
- Keep your fireplace damper closed when not in use.
- Weather strip doors and caulk windows.
- Use LED lights when decorating for holidays.
- Customers with heat pumps should raise temps in small increments to avoid activating heat strips, which can use five times the amount of energy.

For additional tips, please visit gru.com/hlcyg.

Sincerely,

GRU Energy and Business Services Department



Gainesville Regional Utilities, 301 SE 4th Ave., Gainesville, FL 32601

Bill Onsert Nov./Dec

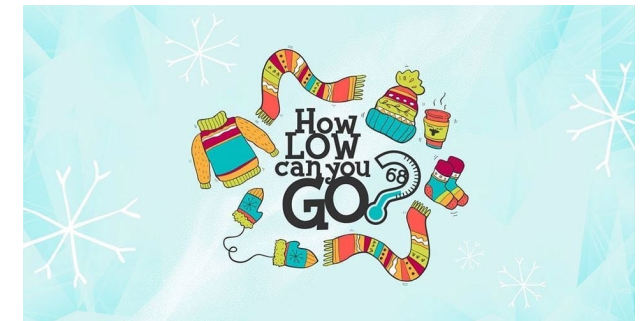


Thu 12/15	Fri 12/16	Sat 12/17	Sun 12/18	Mon 12/19	Tue 12/20	Wed 12/21
71° 47°F	65° 39°F	60° 41°F	57° 41°F	64° 49°F	64° 46°F	62° 47°F
Thunderstorms PM 0.75 in	Sunny 0 in	Mostly Sunny 0 in	Showers 0.1 in	Showers 0.38 in	Showers 0.33 in	AM Showers 0.11 in

- Set your thermostat to 68°F or lower.
- If you have an "emergency heat" setting on your thermostat, that means you have a heat pump. To use your heat pump efficiently, raise the temp one or two degrees at a time.

More cold weather tips at gru.com/SaveEnergy

Facebook/Instagram 12.14/12.15



Tips from Energy Experts

Expert Tips

Heat slowly to be efficient

If you have an "emergency heat" setting on your thermostat, that means you have a heat pump. To use your heat pump efficiently, raise the temperature on your thermostat only one or two degrees at a time. More significant changes in the setting may activate heat strips, which can use up to 5% more energy.

Set temp to 68 degrees or lower

Keep your thermostat at 68 degrees when you're home and turn it down even further at night or when you're leaving for the day. Keep your body warm with extra blankets and heavier clothing.

Simple home improvements increase efficiency

A little maintenance around the house goes a long way toward keeping heating costs down. Check your air filter monthly and change it when needed. Weather-strip doors and caulk windows to keep the cold air out and the hot air in. Keep your fireplace damper closed when not in use to avoid a draft.



Questions?



GRUSM
More than Energy