Natural Gas Storage is a Critical Balancing Tool Across the Energy Grid

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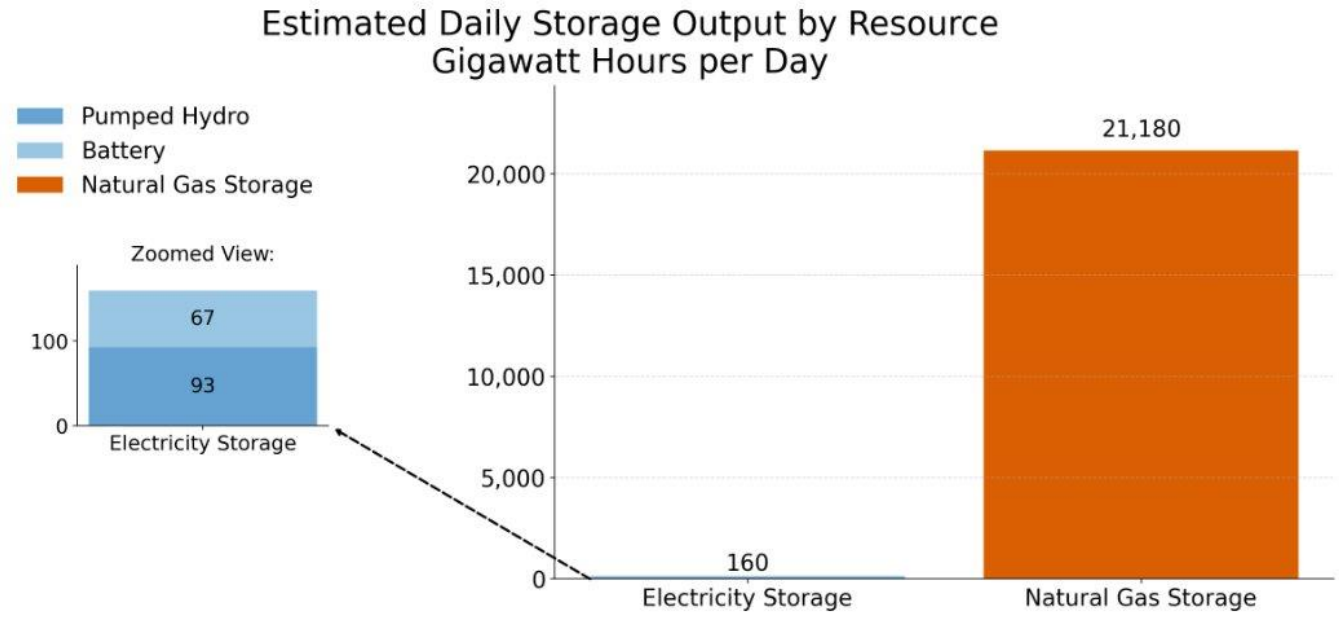

Storage is a critical balancing tool for natural gas utilities during the winter, with a daily dispatch capacity 130x greater than electric storage.

Source: Energy Information Administration, S&P Global Commodity Insights for Gas Storage Data as of Sept 11, 2025. NG output on Jan 21, 2025. Electric output estimated using EIA June 2025 maximum nameplate capacity * maximum daily dispatch capacity.

As the energy system continues to evolve and diversify, natural gas storage remains a cornerstone of energy reliability. Underground natural gas storage is a strategic tool for balancing demand and supplies across time, from seasons to days, helping to ensure the availability of gas supplies and storage capacity, especially when energy needs are highest. During the winter heating season, natural gas storage dispatch capacity is especially critical for system balancing and consumer energy reliability, as thermal loads surge and space heating drives peak demand on the coldest days of the year.

Natural gas storage is built for long-duration, high-volume energy delivery—unlike electric storage, which is designed primarily for short-duration grid balancing. With its flexible, high-capacity energy reserves, underground natural gas storage supports system reliability at output levels that current electric storage technologies cannot match.

Key Findings.

- Underground natural gas storage has a daily dispatch capacity that is more than 130 times greater than current total capacity of all U.S. electric storage systems.
- Combined, pumped hydro and battery storage in the U.S. offer 55 GW in nameplate capacity, delivering an estimated 160 GWh per day. On average, pumped hydro provides an estimated four hours of electric output per day, while battery storage delivers about two hours per day.
- On January 21, 2025, underground storage reached an all-time peak withdrawal of 69.7 Bcf, equivalent to more than 21,000 GWh of energy output. This figure excludes both LNG storage capacity and the maximum daily deliverability of underground storage assets reported by the EIA.
- By 2031, the EIA's August electric storage forecast anticipates nameplate capacity additions of 137.3 GW for battery storage and 10.4 GW for pumped hydro storage to come online. Assuming all projects are built in this timeline, total daily output would reach approximately 307.3 GWh per day, still falling approximately 70 times lower than the proven energy delivery capacity of the natural gas system.

Estimated Daily Stored Electricity Output by Resource

Based on Maximum Nameplate and Monthly Capacity Factor through June 2025

Resource	Nameplate GW	Avg Hours/Day	GWh/Day
Pumped Hydro	23.2	4.0	92.8
Battery	31.6	2.1	66.8
Total	54.8	6.1	159.6

Natural Gas Storage	Bcf/Day	GWh/Day
Peak Day Output on 1/21/2025	69.7	21,179.6

Source: Based on data from the Energy Information Administration and

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