ASHRAE Philadelphia Chapter

Quaker City Climate

April 2026
Volume 61, Issue 7

INSIDE THIS ISSUE:

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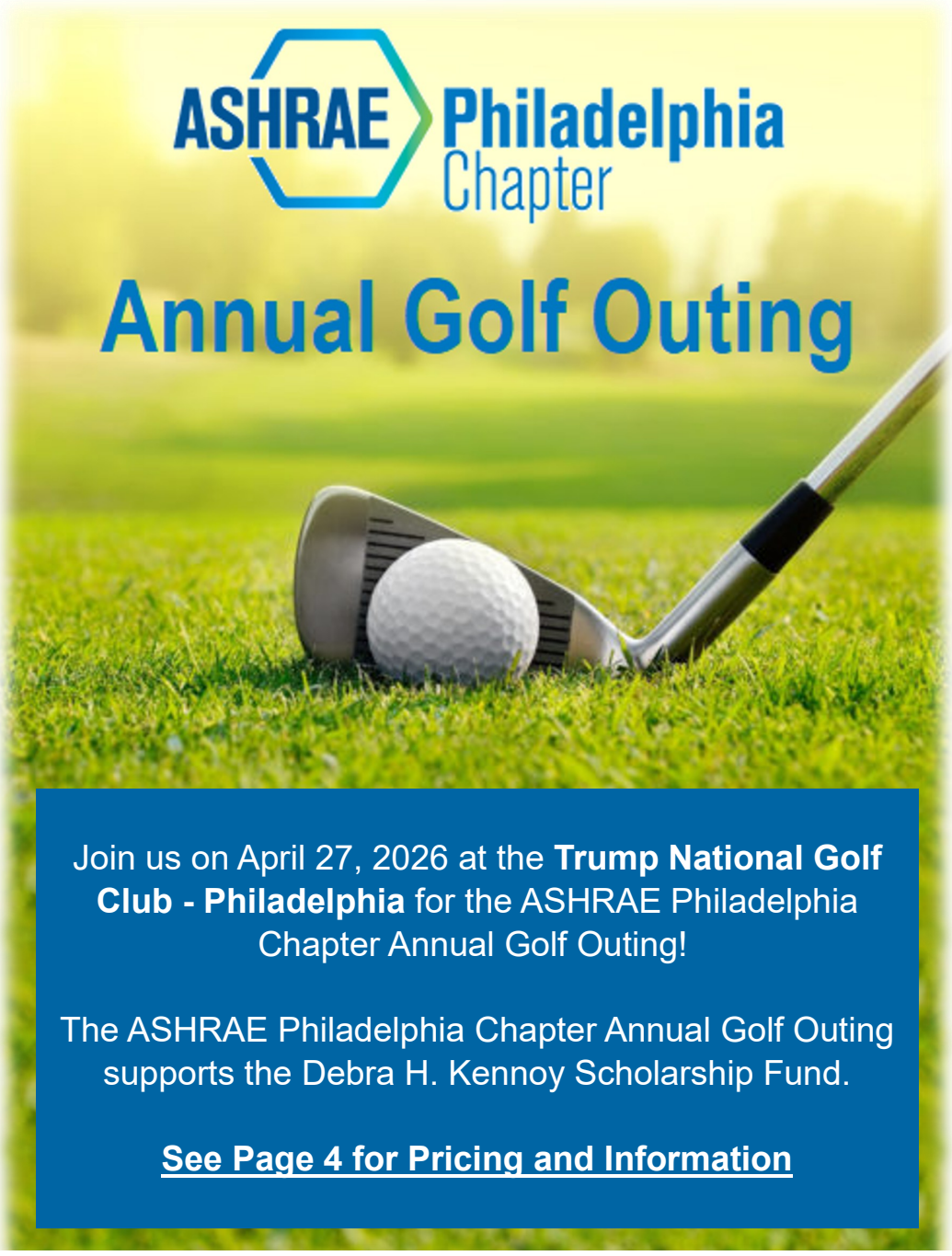
APRIL EVENT



Join us on April 27, 2026 at the **Trump National Golf Club - Philadelphia** for the ASHRAE Philadelphia Chapter Annual Golf Outing!

The ASHRAE Philadelphia Chapter Annual Golf Outing supports the Debra H. Kennoy Scholarship Fund.

See Page 4 for Pricing and Information

2025-2026

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Sam Hall

President's Message

Dear Philadelphia ASHRAE Chapter Members,

Spring has sprung, and we're heading into a busy and exciting stretch to close out the chapter year.

Last Tuesday, we welcomed several healthcare professionals to City Winery for a discussion on ASHRAE Standard 241. It was a well-attended event with great insights and engagement throughout the evening. Thank you to our moderator, Andrew Mondell, and our panelists, Jonathan Flannery, William P. Bahnfleth, Michael Newcomb, Jeffrey Schmidt, and Michael P. Sheerin, for helping to make it a success.

We're also looking forward to our upcoming Student Activities and Young Engineers in ASHRAE (YEA) bowling social on April 2 at Lucky Strike in Philadelphia. Events like these are a great way to connect, welcome new faces, and continue building a strong chapter community. More details can be found in the newsletter and on our website.

Our Annual Golf Outing at Trump National is officially sold out. Thank you to everyone who helped make that happen and for your continued support of the Debra H. Kennoy Scholarship Fund. We're looking forward to another great event.

Our May meeting will feature Past President's Night and our Student Awards Ceremony. We will recognize the contributions of our past chapter leaders and celebrate the achievements of our local students. It is always a great way to wrap up the year. More details to come soon.

Looking ahead, the 2026 ASHRAE Annual Conference will take place June 27 to July 1 in Austin, TX, and the Region III CRC will be held August 13 to 15 in Arlington, VA.

If you have ideas for the chapter or are interested in getting more involved, we would love to have you join us at our next Board of Governors meeting on April 16 at 5:30 PM. Please feel free to reach out to me directly for more information.

Thank you all for your continued support and involvement.

Sincerely,
Tyler A. Holland
Philadelphia Chapter President
c021@ashrae.net

DEBRA H. KENNOY SCHOLARSHIP 2026

EMPOWERING FUTURE LEADERS IN HVAC&R

Scholarship Amount: $7,250

Deadline: April 20, 2026

The ASHRAE Philadelphia Chapter proudly offers the Debra H. Kennoy Scholarship Fund annually to a full-time student in the Greater Philadelphia area interested in a profession in the HVAC&R industry. This Philadelphia scholarship is especially aimed at female students pursuing studies in engineering, mechanical engineering, architecture, science, chemistry, and HVAC&R fields.

Click here for more information and to download an application.

Healthy Buildings: ASHRAE Guideline 241 Panel Discussion and Networking Event

Our meeting on March 24, 2026 was a co-hosted program exploring the evolving landscape of healthy buildings and the practical implications of ASHRAE Standard 241, Control of Infectious Aerosols.

AMFP & ASHRAE Teams, left to right: Mike Medrow (AMFP), John Delli Carpini (AMFP), Tyler A. Holland (ASHRAE), Don Procz (AMFP), Andrew Mondell (ASHRAE), Clay Boggs (ASHRAE), Alexa Smith (ASHRAE).

Attendees at the reception before the panel discussion.

Panel from left to right: Andrew Mondell (Moderator), Jonathan Flannery, Jeffrey Schmidt, Michael Newcomb, Michael P. Sheerin, William P. Bahnfleth.

Registration

$100 No golf - lunch, dinner, and open bar

$2,500 Includes all activities of the day and benefits of all sponsorship contributions.

Sponsorship

$3,500.00 Hors D'oeuvres Sponsor
$3,500.00 Lunch Sponsor
$4,500.00 Hospitality Sponsor
$3,950.00 Golf Tee Sponsor
$4,500.00 Golf Ball Sponsor
$3,500.00 Trophy Sponsor
$4,950.00 Golf Outing Sponsor
$3,500.00 Debra Kennoy Scholarship Sponsor
$3,500.00 Flag Pin Sponsor

ASHRAE
Philadelphia Chapter
Annual Golf Outing
April 27, 2026
10:30 a.m. to 7:00 p.m.
Trump National
Golf Club Philadelphia
500 W. Branch Avenue
Pine Hill, NJ 08021

CLICK HERE TO REGISTER

Golf Outing Sponsor - $4,950 Includes 4some of golf, Hole Sponsorship on Hole 1 and 18, Registration Table Sponsorship, and Branded Golf Polo Shirt for All Participants.

Hospitality Sponsor - $4,500 x 2 Includes 4some of golf and hole sponsorship. Company Logo displayed prominently on front 9 or back 9 beverage carts. Contribution supports complimentary drinks on course and in clubhouse for all golfers.

Golf Ball Sponsor - $4,500 Includes 4some of golf and hole sponsorship. Company Logo displayed on complimentary and customizable golf balls to all golfers.

Golf Tee Sponsor - $3,950 Includes 4Some of golf, Hole Sponsorship, Company Logo Displayed on Golf Tees distributed to all participants of the golf outing.

Lunch Sponsor - $3,500 Includes 4some of Golf and hole sponsorship. Company Logo displayed prominently to all golfers with lunch.

Flag Pin Sponsor - $3,500 Includes 4Some of golf, Hole Sponsorship, Company Logo Displayed on branded flag pins on holes 2 through 17.

Hors D'oeuvres Sponsor - $3,500 Includes 4some of golf and hole sponsorship. Company Logo displayed at cocktail hour. Sponsorship supports hors d'oeuvres and cocktail hour for all golfers.

Cigar Sponsor - $2,500 Includes 4Some of golf, Hole Sponsorship, Company Logo Displayed on complimentary and customizable cigars for the event

Debra Kennoy Scholarship Sponsor - $3,500 x 4 Includes 4some of golf, hole sponsorship, and $1,500 contribution to the ASHRAE Debra Kennoy Scholarship Fund

Trophy Sponsor - $3,500 Includes 4Some of golf, Hole Sponsorship, Company Logo Displayed on all Outing Trophies

BOOKING ANY OF THE ABOVE SPONSORSHIPS WILL QUALIFY YOU FOR DISCOUNTED $1,000 PER FOURSOME PRICING ON ALL ADDITIONAL FOURSOMES.

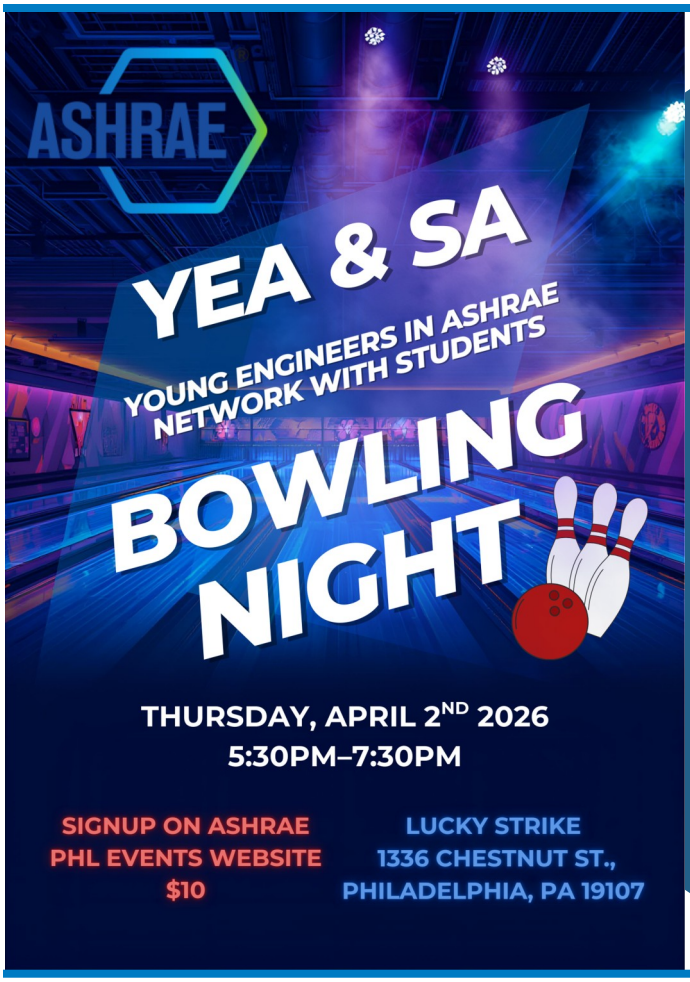
Closest to the Pin Sponsor - $400
Includes branding displayed prominently at hole and supports purchasing of closest to pin award.

Longest Drive Sponsor - $400
Includes branding displayed prominently at tee box and supports purchasing of longest drive award.

Tee Box Sponsor - $250
Company branding displayed prominently at tee box.

For more information, please reach out to

Anthony Rodio
Arodio@UnitasEngineering.com
(609)703-9095



YEA & SA
Young Engineers in ASHRAE Network with Students

~ BOWLING NIGHT ~

THURSDAY, APRIL 2, 2026
5:30 pm. to 7:30 p.m.
Lucky Strike
1336 Chestnut Street
Philadelphia, PA 19107

CLICK HERE TO REGISTER

The Philadelphia Chapter of ASHRAE is a proud sponsor of the Future City competition. On January 24, 2026, ***over 300 students on 44 teams and more than 100 volunteers*** took part in the regional competition held at Archbishop Carroll High School in Radnor, PA.

REGIONAL WINNERS

1st Place Lionville Middle School
2nd Place: Downingtown Middle School
3rd Place: St. Mary Interparochial School
Honorable Mentions: St. Andrew School, Pottsgrove Middle School and Lower Moreland Middle School

Congratulations to
Team Alimora of Lionville Middle School!
Winners of the middle school level at the national competition held in Washington, DC!

Too learn more about this year's winners visit
https://www.futurecityphilly.org

DISCOVER PRESENTS
Future City COMPETITION

2026 THEME:

Design a city that eliminates food waste from farm to table and keeps your citizens healthy and safe.

Future City is a hands-on cross-curricular educational program that brings STEM to life.

To learn more, visit

Future City and Future City Philly

Government Affairs Committee News

Questions or comments? Contact:
Andrew Mondell, Government Affairs Committee Chair
Andrew.Mondell@AMZenergysystems.com

Katherine Mahon, Government Affairs Committee Member
kem@ba-inc.com

Pennsylvania Governor Signs Engineers Week Proclamation

On February 1, Pennsylvania Gov. Josh Shapiro signed a proclamation declaring the week of February 22–28, 2026 as Engineers Week. A.J. Speicher, Government Affairs Chair for ASHRAE's Anthracite Chapter, coordinated the signing with the governor's office. National Engineers Week, established in 1951, is an annual celebration of the engineering workforce focused on increasing interest in engineering careers. More information on National Engineers Week can be found here.

Wilkes-Barre, Pennsylvania Mayor Signs Engineers Week Proclamation

On February 22, Wilkes-Barre, Pennsylvania Mayor, George Brown signed a proclamation declaring the week of February 22–28, 2026 as Engineers Week. A.J. Speicher coordinated the signing.

PROCLAMATION
BY THE
GOVERNOR

WHEREAS, engineers are highly trained professionals who apply their scientific expertise and technical skills in creative, innovative ways to fulfill the essential needs and specific interests of society; and

WHEREAS, these dedicated professionals readily face major technological challenges, including rebuilding towns devastated by natural disasters, to cleaning up and reclaiming our environment, and assuring safe, efficient sources of energy; and

WHEREAS, professional engineers remain dedicated to investing in our future by designing information systems that promise to propel the nation to unprecedented success in the twenty-first century and encouraging young math and science students to realize the practical power of their knowledge; and

WHEREAS, in 2024, I signed into law licensing reform to streamline the process for obtaining the professional engineer license, ensuring the need for more professional engineers in the workplace is met without compromising the high standards of licensing; and

WHEREAS, Pennsylvanians and communities look to knowledgeable and skilled engineers to meet the challenges of tomorrow as the vast possibilities of the future unfolds before us.

THEREFORE, I, Josh Shapiro, Governor of the Commonwealth of Pennsylvania, do hereby proclaim February 22-28, 2026, as

ENGINEERS WEEK

in special recognition of the tremendous contributions that engineers have made to our history and their role in shaping the future of our Commonwealth.

GIVEN under my hand and the Seal of the Governor, at the City of Harrisburg, on this first day of February two thousand twenty-six, the year of the Commonwealth the two hundred fiftieth.

Governor Josh Shapiro

Office of the Mayor of the City of Wilkes-Barre, Pennsylvania

WHEREAS, engineers use their scientific skills and specialized knowledge and skills in creative and innovative ways to fulfill society's needs. Engineers help solve major technological challenges of our time - from designing efficient building systems to rebuilding towns devastated by natural disasters; and,

WHEREAS, engineering has been called the invisible or stealth profession because everything around us and things we use every day have been engineered in some way, yet we may not see the engineers behind the scenes or know much about engineering; and,

WHEREAS, founded in 1951, National Engineers Week (EWeek) is dedicated to ensuring a diverse and well-educated future engineering workforce by increasing understanding of, and interest in, engineering and technology careers; and,

WHEREAS, EWeek is a formal coalition of more than 70 engineering, education and cultural societies, with more than 50 corporations and government agencies dedicated to raising public awareness of engineers' positive contributions to quality of life; and,

WHEREAS, EWeek promotes recognition among parents, teachers and students of the importance of a technical education and a high level of math, science and technology literacy, and motivates youth to pursue engineering careers in order to provide a diverse and vigorous engineering workforce; and,

WHEREAS, ASHRAE sets standards for the heating, ventilation, air conditioning and refrigeration industry, in addition to certifying and educating people in the industry all across the country.

NOW THEREFORE, IT IS RESOLVED THAT I, GEORGE C. BROWN, MAYOR OF THE CITY OF WILKES-BARRE, On behalf of all the citizens of Wilkes-Barre, and the Anthracite Chapter of ASHRAE, do hereby proclaim February 22-28, 2026, as

National Engineers Week

, and urge all citizens to join me in recognizing the important contributions of engineers to our daily lives.

Mayor George C. Brown

ASHRAE Joins Engineering Groups in Letter to Department of Education

In a letter led by the National Society of Professional Engineers, ASHRAE joined five other organizations representing different parts of the engineering community to comment on a proposed U.S. Department of Education rule that would change how graduate degrees are classified and borrowing limits based on those classifications. The proposed rule, published in the Federal Register on January 30, defines "professional degrees" as distinct from other graduate degrees and allows students pursuing those degrees access to greater annual and lifetime access to federal student borrowing. The letter highlights the importance of engineering and urges the Department of Education to recognize graduate engineering programs as "professional." The letter is available here.

DISCOVER ENGINEERS WEEK®
FEBRUARY 22–28, 2026

Join Us in Austin!

June 27 - July 1, 2026

Registration now open!

CLICK HERE FOR MORE INFORMATION

Become a 2026-2027 Corporate Sponsor of the Philadelphia Chapter

Your firm's participation in this program would enable us to make a donation to ASHRAE's Research Promotion which includes over $1.9 million in local research funding.

Some of the benefits your company will enjoy as a Corporate Sponsor include:

- Listing on the Chapter's website with a link to your own website.
- Five (5) free log-ins to the Digital Directory.
- $100 discount on an advertisement in the Digital Directory.
- Tickets to attend our dinner meetings which include quality educational programs.
- We offer a few different levels of corporate sponsorship. Each level will receive the same types of benefits, with some differences in quantities and discounting.

For more information, please contact:

Tyler Holland
President, ASHRAE Philadelphia Chapter
c021@ashrae.net

Thank you for your support!

Our Chapter Digital Directory is available!

The link to the Directory of Manufacturers' Representatives in the Philadelphia Area is on our home page on the website, or you may click here to advertise or purchase access to the directory!

ASHRAE Philadelphia Chapter Digital Directory

The Philadelphia Chapter
of the
American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.

994 Old Eagle School Road
Suite 1019
Wayne, PA 19087-1866
P 610-971-2169

Visit
our web site at:
www.ashraephilly.org
Follow us
on LinkedIn

 Any member with material to submit for inclusion in the *Climate* can send the information to:

Cindy Cornish
P 610-971-2169
cindy@mmco1.com

Material can include letters to the editor, member news, upcoming events, comments on chapter programs or issues, etc.

New Philadelphia Chapter Members—WELCOME!

Robert Atwell	Gary Pecoraro
Joe Camp	Henry Shannon
Daniel Conner	Nicholas Tromba
Ephraim Gearhart	Kim Wieland

Don't forget to check out BOWLING NIGHT!
THURSDAY, APRIL 2, 2026 | 5:30 pm. to 7:30 p.m.
Lucky Strike, 1336 Chestnut Street, Phila, PA 19107

CLICK HERE TO REGISTER

What are the benefits of paying Philadelphia Chapter *dues** ?

Discounts:

- $200 Discount for Basic HVAC Design Class
- Discounts on Monthly Chapter Meetings
- Free access to the Digital Directory
- And much more!

***Note that Philadelphia Chapter Membership Dues are $50/year.**

To receive discounts, please remit your Chapter dues when renewing online or applying for a new membership. Feel free to upgrade online by clicking here or contact c021@ashrae.net for assistance.

Membership Advancement

If you are currently an ASHRAE Associate Member, becoming a full Member is easier than you think! The following count toward the required **12 points** to advance to full membership status. You must update your ASHRAE online biography and send an email to membership@ashrae.org to advance.

Non-accredited degree = 4 points	Accredited degree = 6 points
PE = 4 points	Industry experience = 1 point/year

DATA CENTERS
Column

Data Center Power Availability: Roadblock or Disruptive Opportunity?

BY DAVID QUIRK, P.E., MEMBER ASHRAE; JUSTIN SETER, ASSOCIATE MEMBER ASHRAE; TOM DAVIDSON, P.E., MEMBER ASHRAE

The data center industry has been a relatively under-scrutinized player in public policy discussions until the past few years. Electric energy consumption and costs had been stable, and data center electric use had been relatively low, at less than 2% of U.S. electricity consumption. The transition of servers from "in-house" data centers to the cloud and the arrival of artificial intelligence (AI), however, have significantly increased both the size and energy requirements of data centers, creating disruption. This column takes a quick look at how we got here and what directions both the data center industry and the electric grid may need to take to facilitate both our future demand for data center compute capacity—and a robust electrical grid—in an environmentally responsible manner.

State of the U.S. Electric Grid

The U.S. grid capacity has been increasing for the past 10 years, with most of the increase due to renewables. Natural gas, currently the capacity leader, has had slight year-over-year increases. Coal-fired plants have been retired, and the result has been a significant drop in coal's contribution to grid capacity. Nuclear, petroleum, conventional hydroelectric and pumped hydro have been essentially constant. Per a 2024 Lawrence Berkeley National Laboratory study, the average aggregate power demand of U.S. data centers, assuming 50% utilization relative to the data center's "nameplate" capacity, will be in the range of 74 GW to 132 GW by 2028.[1] Assuming 100 GW demand as a median national estimate, this demand slightly exceeds the 2024 capacity of all the nuclear power plants in the country.[2] For reference, *Figure 1* shows recent U.S. grid capacity trends by energy source.

In addition to capacity, another tracked component of the electric grid is the energy produced (generation). At the national level, this is typically measured in terawatt-hours/yr (TWh/yr). *Figure 2* provides net electric generation by source, over the same period as

David Quirk, P.E., is CEO, Justin Seter is strategic initiatives officer and Tom Davidson, P.E., is senior mechanical engineer at DLB Associates

Figure 1. Total generation remained relatively constant from about 2014 to 2020. Since 2020, however, a rising trend can be noted. From a use standpoint, this is not unexpected, as there are more buildings, including data centers, and a trend toward building electrification as part of decarbonization of the built environment. The trend toward plug-in electric vehicles has likely also added to grid stress, at least in the short term. From an energy source standpoint, natural gas and renewable energy contributed to most of the recent rise, while nuclear and hydroelectric have stayed remarkably steady. Coal-fired generation, however, fell almost 60% from 2014 to 2024, but an uptick in 2025..

A third piece of the national energy equation is, of course, the cost of electricity. *Figure 3* shows the average cost of electricity in the U.S. from 2014 to 2024. Note that there was relative stability from 2014 to 2020, but a definite increase since then, especially in the residential and commercial sectors.

Prices have risen enough that the issue has become political. For example, the N.J. governor recently issued an executive order declaring an energy State of Emergency, directing state agencies to identify permit reforms to rapidly deploy new energy projects, establish a state-level Nuclear Power Task Force and identify programs to bring additional solar and battery storage generation on-line.[4] This followed a significant summer electric rate increase in 2025 and the anticipation of an additional one in 2026, with increases mostly attributable to capacity auctions in the PJM electric grid. Similar disruptions to the status quo can be expected across the country, especially if utility rates continue to rise.

Data Center Growth Projections

Data center growth, nominally attributed to both the migration of computers from on-site facilities to the cloud and the growth of AI, is projected to increase

FIGURE 1 Summer generating capacity of the U.S. grid, gigawatts demand.[2]

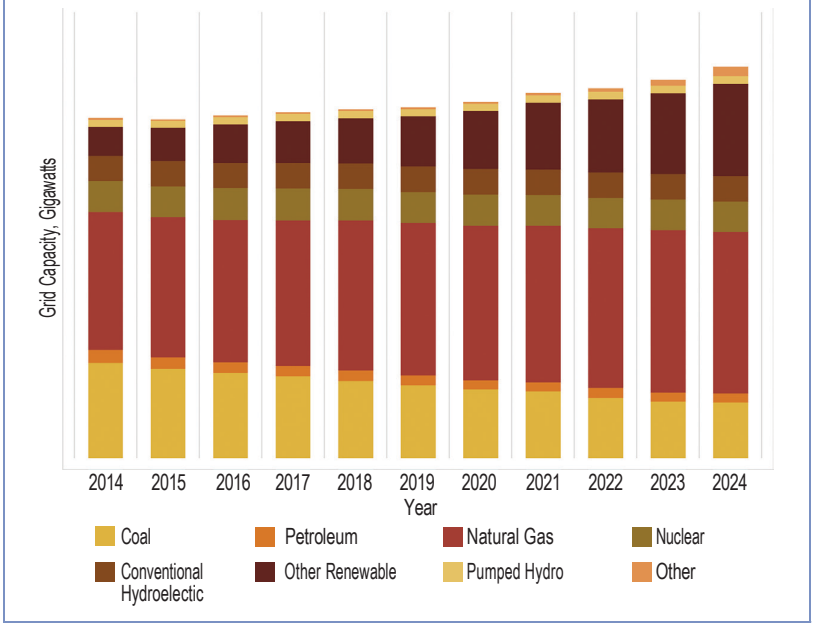
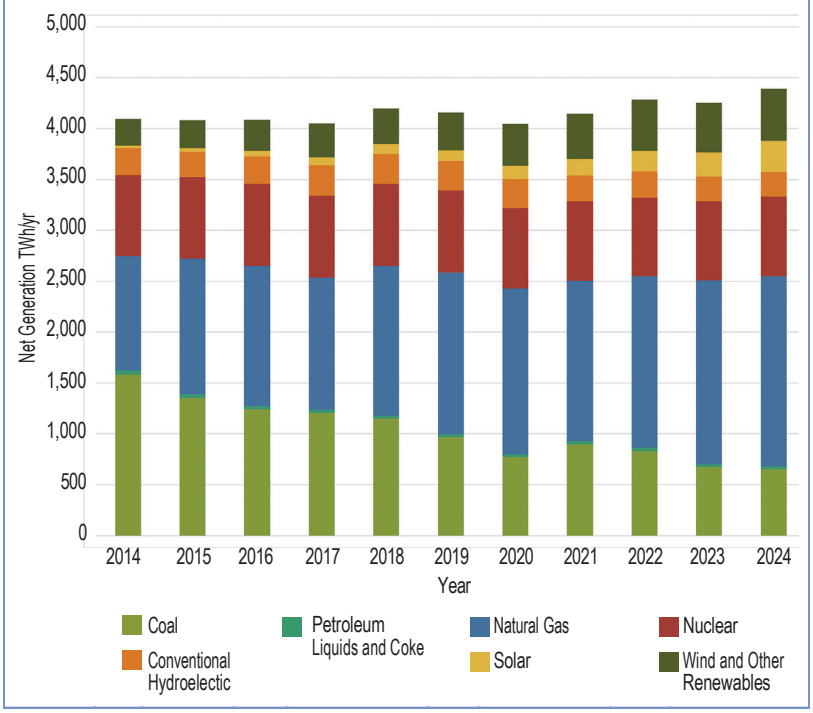


FIGURE 2 Net electric generation by energy source, TWh/yr.[2]



both in the short and long term. This growth will require significant additional grid capacity and energy.

The first two reports to Congress on the energy consumption of data centers (2007, 2016) estimated that they consumed less than 2% of all U.S. electricity. In the third report (2024), the estimate rose to 4.4% for 2023, and the estimated range for 2028 is between 6.7% and 12.0%[1] (*Figure 4*). For reference, the 6.7% to 12.0% corresponds to 324 TWh to 578 TWh. Taking the average value of 451 TWh, 2028 data center energy consumption would be equal to the energy generation of all wind-powered energy production in the U.S. in 2024 and slightly higher than the nuclear-powered generation of 444 TWh (also 2024 data).[2] The expected growth is thus significant enough to impact both generation and distribution at the national level.

FIGURE 3 Average cost of electricity in the U.S. by sector, 2014 – 2024.[2]

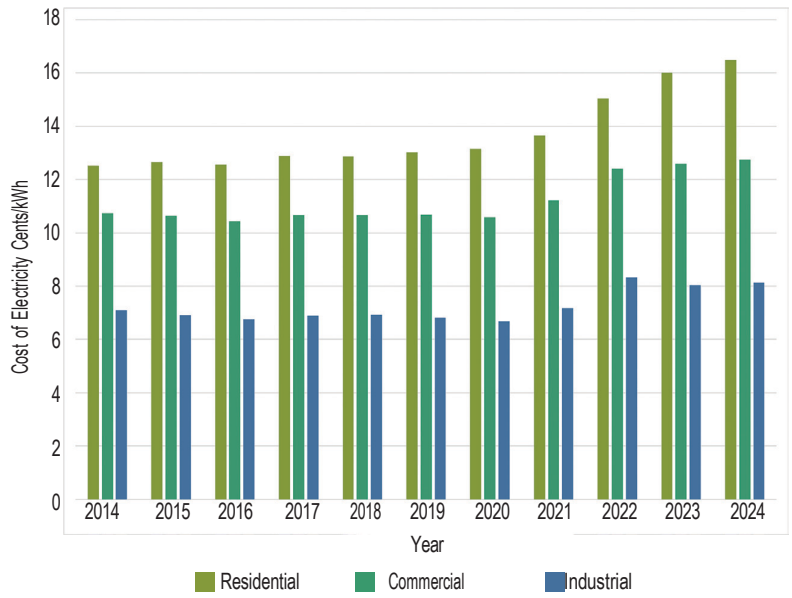
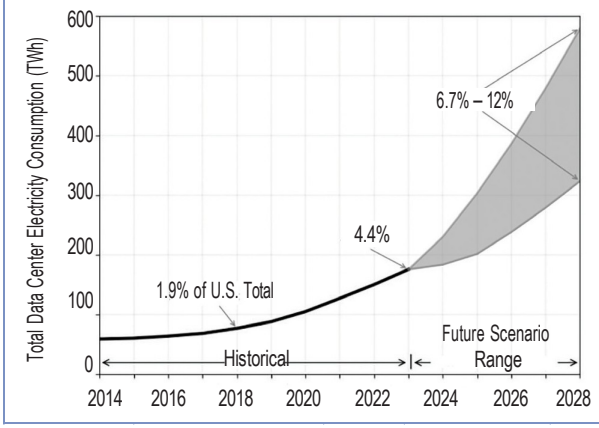


FIGURE 4 Total U.S. data center electric use, 2014 – 2028, including projections.[1]



Strategies for Obtaining Power for New Construction

Strategies for obtaining electrical power for new data center construction can be grouped into three basic categories: grid pathway acceleration, behind-the-meter power generation and flexible load.

Data centers currently face electrical infrastructure construction timelines significantly longer than in the past—partly supply chain driven due to high demand for generators, transformers, switchgear, UPS, etc. In many regions/grids, the biggest constraint is not just generation limits but approval timelines, transmission upgrades and substation construction, all falling into the broader category of "interconnection + transmission." If the site is located such that new utility rights-of-way are required, the process can be much more complicated. In general, the larger the facility, the more difficult it will be to provide power and the longer the application will likely take to be approved and brought on-line; site selection and sizing are extremely important.

In the behind-the-meter category, the typical strategy is using self-generation with natural-gas–fired generators designed for continuous operation. For behind-the-meter solutions, natural gas pipelines may be the primary utility constraint. Nuclear power's potential use to support large data centers has of course also made headlines but in the short term nuclear will likely have significant regulatory and other constraints.

A term often associated with flexible load is virtual power plants (VPPs). VPPs could consist of a mix of demand reduction measures, including on-site demand reduction (such as load migration to other data centers), an increase in on-site generation and using battery storage to reduce demand during grid peaks. Another option is potentially to combine the data center power application with VPPs located on the "community" side

of the meter. Strategically located, the Rocky Mountain Institute recently argued that with the right market structures, VPPs could support a 20% growth in electric demand by 2030, an expansion rate sufficient to match projected data center load growth for the remainder of the decade.[3]

Opportunities for using waste power from data centers are also becoming more realistic. For instance, the increasing use of liquid cooling, if accompanied by high-temperature waste heat from the servers, could result in small-to-medium scale district heating plants to serve local community facilities, reducing the cost of winter heating. If data centers use natural gas for self-generation, the opportunity to use waste heat recovery for district heating (and even cooling) is even more apparent.

Conclusion

The data center industry, fueled by increased cloud use and increasing AI requirements, is now a major player for existing and new electrical power generation. Unless solutions can be found to provide power to these data centers more quickly than historical pathways, the U.S. is at risk of having AI and other data center applications limited by power availability. Novel and disruptive strategies, both on the data center and utility side of the power availability equation, are needed to resolve current capacity and distribution bottlenecks and provide seamless access to the electric grid without negative cost or environmental impacts to local communities. Evidence exists that this disruption has begun.

References

1. Shehabi, A., et.al. 2024. "2024 United States Data Center Energy Usage Report." Lawrence Berkeley National Laboratory (LBNL). https://tinyurl.com/4np9tzbc

2. U.S. EIA. 2025. "Electric Power Annual 2024." October 2025. U.S. Energy Information Agency. https://tinyurl.com/yfcv4vmu

3. Cohen, J., et.al. 2025. "How Virtual Power Plants Can Help the United States Win the AI Race." Rocky Mountain Institute (RMI). https://tinyurl.com/4cb5vf4a

4. State of New Jersey. 2026. "Executive Order 2." https://tinyurl.com/yb7jv73n January 20, 2026. ■