
MEP
GIANTS
2024
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EATON CELEBRATES THE 2024 MEP GIANTS

Chris M. Finen, P.E.
Manager
National Application Engineers

It is Eaton's privilege each year to celebrate engineering excellence through the MEP Giants program. We would like to commend all the firms recognized in 2024 for your pivotal work advancing safer, more resilient and sustainable communities.

Your capabilities are the cornerstone of our nation's efforts to revitalize and reinvent critical infrastructure everywhere. Under your expert guidance, you have advanced essential projects by leveraging the latest technologies, transformative designs and federal programs that improve your clients' return on investment.

At Eaton, we're reimagining the possibilities of energy systems and investing in resources to help you make the most of new technologies and available incentives. With a vast network of local application engineering experts, best-in-class tools, experiential educational programs, and expanded manufacturing capacity, we are readily available to help support your most complex projects—whenever and wherever you need us. Together, we can help streamline your projects to create infrastructure ready for the demands of tomorrow while making the most of the resources available today.

Eaton congratulates all 2024 MEP Giants for your exceptional contributions to shaping a stronger future. We also thank Consulting-Specifying Engineer magazine for providing the platform to celebrate your achievements. Our entire Eaton team stands ready to support you as you continue to redefine engineering excellence.

Chris M. Finen, P.E.
Manager, National Application Engineers
Eaton

MEP GIANTS 2024

BY THE NUMBERS

$75,502,031,863
Grand total gross revenue

$14,644,854,430
Grand total MEP design revenue

66,965
Total engineers employed

8,208
LEED APs on staff

85%
Of MEP design revenue came from projects within the U.S.

33%
Provided engineering services to the European Union in 2023

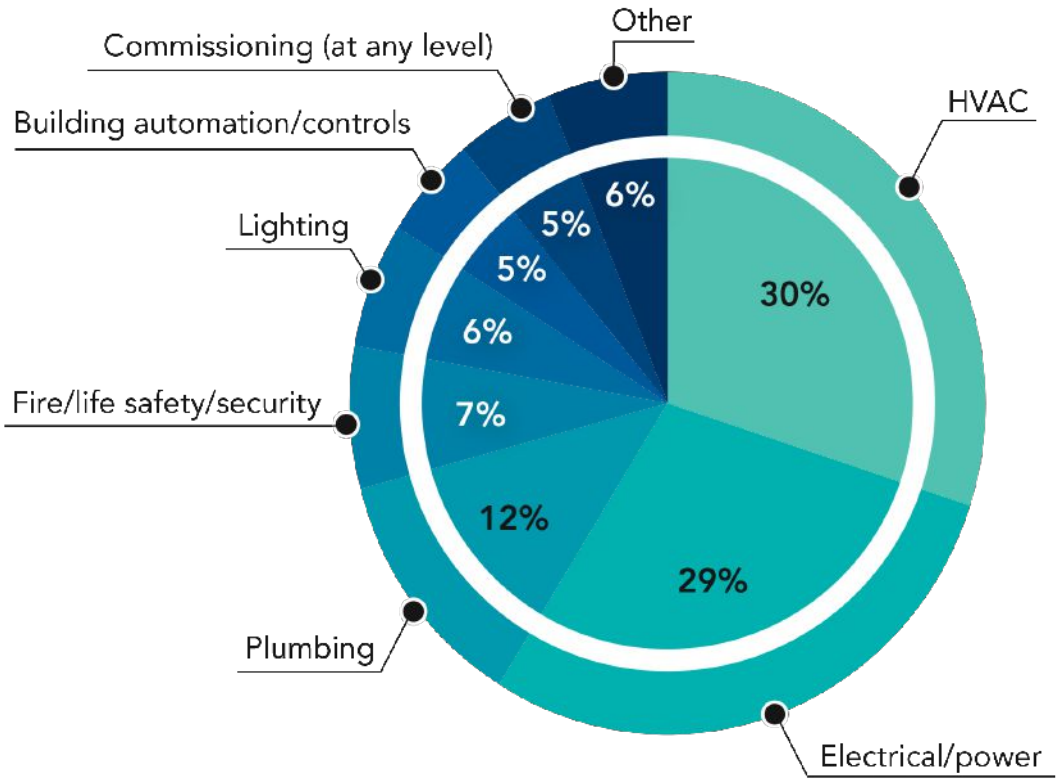
32%
Cite "the economy's impact on the construction market" as their biggest corporate challenge

29%
Of expenditures are allocated to new tools, such as software or hardware, on average

18%
Of engineering staff are female

14%
Of 2023 MEP design revenue was earned from hospital or health care facility projects

PERCENTAGE OF MEP DESIGN BILLINGS



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86	BRPH Architects Engineers Inc.
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39	EwingCole
8	EXP
48	Gannett Fleming
29	Ghafari Associates LLC
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RANK	FIRM NAME
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72	H.F. Lenz Co.
59	H2M architects + engineers
7	HDR
68	HED
18	Henderson Engineers
44	HGA
74	Highland Associates
19	HPE Sustainable Data Center Modernization
12	IMEG
46	Interface Engineering Inc.
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77	Michaud Cooley Erickson (MCE)

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11	Stantec Inc.
69	STV
22	Syska Hennessy Group
6	Tetra Tech High Performance Buildings Group
47	ThermalTech Engineering Inc.
30	TLC Engineering Solutions
26	Vanderweil Engineers
56	WB Engineers+Consultants
3	WSP

2024 MEP GIANTS

RANK	FIRM NAME	LOCATION	TOTAL GROSS REVENUE FOR FISCAL YEAR ($ US)	TOTAL MEP DESIGN REVENUE ($ US)	PERCENT MEP REVENUE	MEP REVENUE, U.S. PROJECTS
1	Jacobs	Dallas, TX, U.S.	$16,352,414,000	$2,539,980,000	16%	70%
2	Burns & McDonnell	Kansas City, MO, U.S.	$7,400,000,000	$1,669,113,805	23%	98%
3	WSP	New York, NY, U.S.	$10,631,955,400	$1,184,240,794	11%	40%
4	Alfa Tech Consulting Engineers Inc.	San Jose, CA, U.S.	$2,500,000,000	$800,000,000	32%	8%
5	Mott MacDonald	Iselin, NJ, U.S.	$2,941,646,000	$697,016,380	24%	24%
6	Tetra Tech High Performance Buildings Group	Pasadena, CA, U.S.	$4,523,000,000	$473,000,000	10%	40%
7	HDR	Omaha, NE, U.S.	$3,520,000,000	$411,013,548	12%	35%
8	EXP	Brampton, ON, Canada	$936,000,000	$402,000,000	43%	50%
9	Salas O'Brien	Irvine, CA, U.S.	$561,613,348	$365,389,869	65%	95%
10	Jensen Hughes	Baltimore, MD, U.S.	$367,940,649	$338,494,660	92%	63%
11	Stantec Inc.	Edmonton, AB, Canada	$928,254,304	$321,096,242	35%	47%
12	IMEG	Rock Island, IL, U.S.	$477,800,000	$250,845,000	53%	99%
13	IPS-Integrated Project Services LLC	Blue Bell, PA, U.S.	$1,277,692,700	$223,219,394	17%	71%
14	Ewing Kessler	Memphis, NC, U.S.	$200,000,000	$200,000,000	100%	60%
15	Arup US Inc.	New York, NY, U.S.	$594,328,919	$196,884,988	33%	62%
16	CMTA	Prospect, KY, U.S.	$324,409,147	$193,193,930	60%	100%
17	Affiliated Engineers Inc.	Madison, WI, U.S.	$203,430,000	$190,756,000	94%	99%
18	Henderson Engineers	Lenexa, KS, U.S.	$158,527,182	$158,527,182	100%	99%
19	HPE Sustainable Data Center Modernization	Spring, TX, U.S.	$149,610,000	$149,610,000	100%	10%
20	Page	Washington, DC, U.S.	$546,223,702	$147,241,000	27%	26%
21	NV5 Global Inc.	Hollywood, FL, U.S.	$933,710,000	$145,031,000	16%	69%
22	Syska Hennessy Group	New York, NY, U.S.	$143,201,441	$136,808,056	96%	92%
23	BR+A	Boston, MA, U.S.	$134,400,000	$134,400,000	100%	100%
24	SSOE Group	Toledo, OH, U.S.	$296,680,000	$127,572,400	43%	89%
25	Introba Inc.	St. Louis, MO, U.S.	$161,153,000	$120,000,000	74%	37%
26	Vanderweil Engineers	Boston, MA, U.S.	$139,871,532	$113,368,199	81%	97%
27	Southland Industries	Garden Grove, CA, U.S.	$2,032,817,686	$97,189,193	5%	100%
28	ME Engineers	Golden, CO, U.S.	$83,300,000	$83,300,000	100%	68%
29	Ghafari Associates LLC	Dearborn, MI, U.S.	$235,400,000	$80,000,000	34%	87%
30	TLC Engineering Solutions	Orlando, FL, U.S.	$107,224,847	$78,324,155	73%	99%
31	Dewberry	Fairfax, VA, U.S.	$711,450,000	$76,346,130	11%	95%
32	Burns Engineering	Philadelphia, PA, U.S.	$87,251,000	$75,074,000	86%	100%
33	Interface Engineering Inc.	Portland, OR, U.S.	$59,444,404	$57,323,596	96%	95%

2024 MEP GIANTS

RANK	FIRM NAME	LOCATION	TOTAL GROSS REVENUE FOR FISCAL YEAR ($ US)	TOTAL MEP DESIGN REVENUE ($ US)	PERCENT MEP REVENUE	MEP REVENUE, U.S. PROJECTS
33	RMF Engineering Inc.	Baltimore, MD, U.S.	$71,681,326	$71,681,326	100%	100%
34	Jaros, Baum & Bolles	New York, NY, U.S.	$88,095,479	$70,655,796	80%	98%
35	SmithGroup	Detroit, MI, U.S.	$364,819,161	$68,505,979	19%	19%
36	McKinstry	Seattle, WA, U.S.	$1,000,000,000	$67,000,000	7%	100%
37	Smith Seckman Reid Inc. (SSR)	Nashville, TN, U.S.	$121,732,393	$66,135,433	54%	99%
38	Ramboll	Arlington, VA, U.S.	$600,000,000	$65,000,000	11%	90%
39	EwingCole	Philadelphia, PA, U.S.	$141,700,000	$63,765,000	45%	100%
40	CannonDesign	New York, NY, U.S.	$368,000,000	$62,500,000	17%	100%
41	P2S Inc.	Long Beach, CA, U.S.	$69,946,540	$61,946,540	89%	100%
42	AKF	New York, NY, U.S.	$64,800,000	$57,600,000	89%	96%
43	AMA Group	New York, NY, U.S.	$108,000,000	$55,000,000	51%	100%
44	HGA	Minneapolis, MN, U.S.	$295,312,904	$54,571,333	18%	99%
45	DLR Group	Seattle, WA, U.S.	$385,500,000	$53,974,000	14%	100%
46	Interface Engineering Inc.	Portland, OR, U.S.	$65,173,689	$53,183,523	82%	2%
47	ThermalTech Engineering Inc.	Cincinnati, OH, U.S.	$131,550,000	$52,100,000	40%	100%
48	Gannett Fleming	Camp Hill, PA, U.S.	$775,000,000	$51,400,000	7%	100%
49	RTM Engineering Consultants LLC	Schaumburg, IL, U.S.	$66,490,467	$51,280,030	77%	100%
50	Stanley Consultants	Muscatine, IA, U.S.	$239,521,093	$50,294,222	21%	19%
51	DLB Associates Consulting Engineers PC	Neptune, NJ, U.S.	$62,747,453	$46,667,351	74%	98%
52	Jordan & Skala Engineers	Norcross, GA, U.S.	$48,253,000	$43,618,000	90%	100%
53	Loring Consulting Engineers Inc.	New York, NY, U.S.	$43,006,000	$41,086,000	96%	96%
54	Morrison Hershfield	Markham, ON, Canada	$161,727,100	$40,008,679	25%	51%
55	CDM Smith Inc.	Boston, MA, U.S.	$1,464,000,000	$39,724,050	3%	3%
56	WB Engineers+Consultants	New York, NY, U.S.	$50,940,000	$39,200,000	77%	100%
57	Dunham Associates Inc.	Minneapolis, MN, U.S.	$39,833,000	$39,120,838	98%	98%
58	Robert Derector Associates	New York, NY, U.S.	$44,800,000	$39,000,000	87%	87%
59	H2M architects + engineers	Melville, NY, U.S.	$105,351,494	$38,930,086	37%	100%
60	MG Engineering DPC	New York, NY, U.S.	$38,300,000	$38,300,000	100%	90%
61	LaBella Associates	Rochester, NY, U.S.	$279,574,102	$37,311,221	13%	100%
62	Arora Engineers LLC	Chadds Ford, PA, U.S.	$51,922,823	$36,613,071	71%	100%
63	Power Design Inc.	St. Petersburg, FL, U.S.	$1,200,000,000	$33,850,000	3%	100%
64	Johnson, Mirmiran & Thompson Inc.	Hunt Valley, MD, U.S.	$429,019,000	$32,020,722	7%	100%
65	Bernhard	Metairie, UT, U.S.	$875,000,000	$32,000,000	4%	100%
66	M/E Engineering PC	Rochester, NY, U.S.	$33,594,000	$31,850,750	95%	100%

2024 MEP GIANTS

RANK	FIRM NAME	LOCATION	TOTAL GROSS REVENUE FOR FISCAL YEAR ($ US)	TOTAL MEP DESIGN REVENUE ($ US)	PERCENT MEP REVENUE	MEP REVENUE, U.S. PROJECTS
67	Kimley-Horn	Raleigh, NC, U.S.	$2,441,717,988	$31,429,790	1%	100%
68	HED	Royal Oak, MI, U.S.	$108,360,830	$30,341,032	28%	100%
69	STV	New York, NY, U.S.	$808,651,000	$29,700,000	4%	100%
70	Spectrum Engineers Inc.	Salt Lake City, UT, U.S.	$28,801,366	$28,801,366	100%	99%
71	Core States Group	Duluth, GA, U.S.	$143,000,000	$28,066,327	20%	96%
72	H.F. Lenz Co.	Johnstown, PA, U.S.	$35,960,000	$27,660,000	77%	100%
73	GPI/Greenman-Pedersen Inc.	Babylon, NY, U.S.	$380,800,000	$27,500,000	7%	100%
74	Highland Associates	New York, NY, U.S.	$44,200,000	$26,400,000	60%	100%
75	CJL Enginneering	Moon Township, PA, U.S.	$25,498,891	$25,498,891	100%	100%
76	Kohrs Lonnemann Heil Engineers Inc.	Ft. Thomas, KY, U.S.	$24,630,734	$24,630,734	100%	100%
77	Michaud Cooley Erickson (MCE)	Minneapolis, MN, U.S.	$24,500,000	$24,500,000	100%	100%
78	Cushing Terrell	Billings, MT, U.S.	$81,946,061	$24,110,246	29%	99%
79	Osborn Engineering	Cleveland, OH, U.S.	$57,500,000	$23,339,208	41%	100%
80	Sazan Group	Seattle, WA, U.S.	$24,611,794	$23,155,118	94%	100%
81	Pond	Peachtree Corners, GA, U.S.	$97,600,000	$22,600,000	23%	95%
82	Matrix Technologies Inc.	Maumee, OH, U.S.	$88,488,562	$22,136,403	25%	97%
83	LiRo-Hill	Syosset, NY, U.S.	$510,000,000	$22,000,000	4%	100%
84	PBS Engineers Inc.	Glendora, CA, U.S.	$21,700,000	$21,700,000	100%	100%
85	Peter Basso Associates Inc.	Troy, MI, U.S.	$22,273,000	$21,265,000	95%	100%
86	BRPH Architects Engineers Inc.	Melbourne, FL, U.S.	$58,560,000	$21,080,000	36%	99%
87	Concord Engineering Group Inc.	Vooorhees, NJ, U.S.	$22,500,000	$21,000,000	93%	100%
88	LEAF Engineers	Houston, TX, U.S.	$21,570,762	$20,977,837	97%	100%
89	Setty	Washington, DC, U.S.	$21,819,941	$20,929,840	96%	100%
90	Karpinski Engineering	Cleveland, OH, U.S.	$22,700,000	$20,700,000	91%	100%
91	Re:Build Optimation Technology LLC	Rush, NY, U.S.	$38,206,263	$20,345,000	53%	95%
92	Bridgers & Paxton Consulting Engineers Inc.	Albuquerque, NM, U.S.	$20,296,110	$20,296,110	100%	100%
93	EEA Consulting Engineers	Austin, TX, U.S.	$28,421,552	$20,182,054	71%	100%
94	McKim & Creed	Raleigh, NC, U.S.	$164,284,954	$19,988,202	12%	100%
95	Bowman Consulting Group Ltd (Bowman)	Reston, VA, U.S.	$346,000,000	$19,800,000	6%	100%
96	Burdette, Koehler, Murphy & Associates Inc.	Baltimore, MD, U.S.	$18,800,000	$18,800,000	100%	100%
97	GHT Limited	Arlington, VA, U.S.	$18,237,000	$18,232,000	99%	100%
98	Leo A Daly	Omaha, NE, U.S.	$126,000,000	$18,139,241	14%	95%
99	BSA LifeStructures	Indianapolis, IN, U.S.	$60,937,647	$17,884,836	29%	100%
100	Barton Associates Inc.	York, PA, U.S.	$16,761,526	$16,735,317	99%	100%

FEDERAL FUNDING FOR GRID MODERNIZATION

Powering Business Worldwide

Federal funding for grid modernization | Stronger Future

Eaton can help guide you through every stage of power grid transformation – from customized designs, innovative solutions, FLISR control and automation packages to expert project management, service and support. With demands on the power grid continually evolving, it is important to design a system that can adapt to handle new technologies and changing consumer behaviors while maintaining cybersecurity.

Amara Rozgus and Amanda Pelliccione, *Consulting-Specifying Engineer*, Chicago

The 2024 MEP Giants get a big paycheck this year

The 2024 MEP Giants firms increased revenue substantially

The 2024 MEP Giants generated $14.64 billion in mechanical, electrical, plumbing (MEP) and fire protection engineering design revenue, an increase over last year's MEP Giants' revenue of $11.96 billion. This year, the 2024 MEP Giants earned approximately $75.5 billion in gross annual revenue during the previous fiscal year, a jump of 12%.

MEP design revenue rose a whopping 22% over last year's numbers. Figure 1 shows the various building specialties in which the 100 firms that make up the MEP Giants earned revenue.

Once again absent from the top 10 was AECOM, which has been on this list previously. There were also some newcomers to the total of 100 companies. Several companies either joined the list for the first time or returned after time away from reporting data (in alphabetical order): Barton Associates Inc., DLB Associates Consulting Engineers PC, Ewing Kessler, HPE Sustainable Data Center Modernization, Introba Inc., Kohrs Lonnemann Heil Engineers Inc., LEAF Engineers, LiRo-Hill, Page, Ramboll, Re:Build Optimation Technology LLC, Robert Derector Associates and SSOE Group.

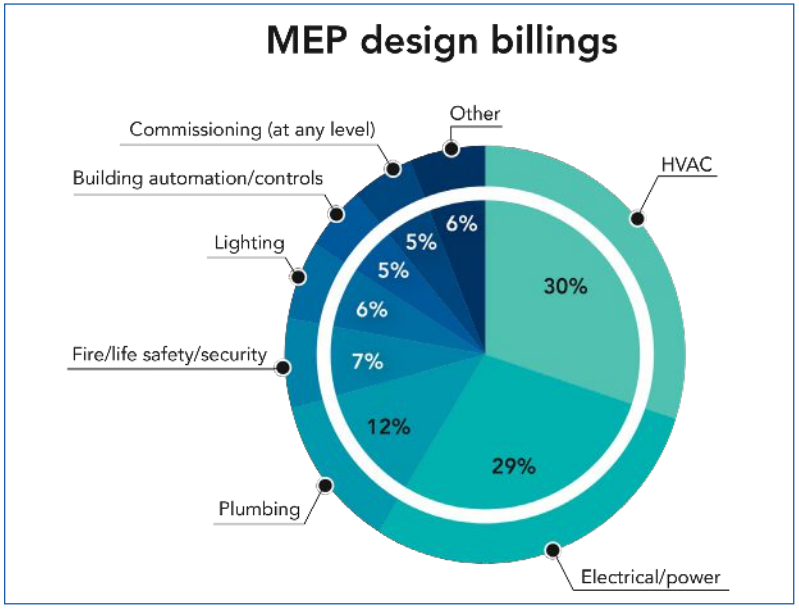

Figure 1: The top two areas in which 2023 MEP Giants earned revenue — HVAC and electrical/power projects — varies very little year over year. Courtesy: *Consulting-Specifying Engineer*

Table 1: Top 10 firms are listed by MEP design revenue; these 10 firms earned $8.8 billion out of $14.64 billion earned by all 100 MEP Giants. Jacobs topped the list yet again — as it has since 2013 — with $2.5 billion in MEP design revenue, a slight increase from last year. Courtesy: *Consulting-Specifying Engineer*

The list this year comprises 59% private companies (up from 54% in 2023), 23% employee-owned companies, 8% public companies and 10% limited-liability companies. The 2024 MEP Giants are made up of consulting engineering firms (60%, down from 63% last year) and architectural engineering firms (31%, up slightly from last year).

Several mergers and acquisitions occurred in the past year; 25% of the firms reporting acquired another company, a slight dip from last year's 26% acquisition rate (see page 22 for the article "One-quarter of MEP Giants finalized a deal last year").

Table 1 shows the top firms based on MEP design revenue, which is how the MEP Giants are ranked.

Human resources

The 2024 MEP Giants firms employ 30,803 MEP/FP engineers, an increase from 26,606 last year. On average, each 2024 MEP Giants firm has 125 mechanical engineers (down from 127 in 2023), 153 electrical engineers (up from 108), 18 plumbing engineers (down from 20), 12 fire protection engineers (down from 11) and 44 environmental engineers (up from 40).

This year's MEP Giants employ 197,041 people, including all types of administrative staff and job titles (an increase from last year's staffing total of 178,168 people).

Table 2: This shows the top 2024 MEP Giants firms by gross annual revenue; these firms earned $53.8 billion. Courtesy: *Consulting-Specifying Engineer*

Table 1: Top 10 firms by MEP design revenue

Rank	Firm	MEP design revenue
1	Jacobs	$2,539,980,000
2	Burns & McDonnell	$1,669,113,805
3	WSP	$1,184,240,794
4	Alfa Tech Consulting Engineers Inc.	$800,000,000
5	Mott MacDonald	$697,016,380
6	Tetra Tech High Performance Buildings Group	$473,000,000
7	HDR	$411,013,548
8	EXP	$402,000,000
9	Salas O'Brien	$365,389,869
10	Jensen Hughes	$338,494,660

The engineering staffs of this year's firms are made up of 18% females, a slight decrease from the previous year. When asked "What percentage of your firm's nonengineering staff are female?" respondents indicated 41% were female, a decrease from 44% the year before.

On average, firms had 82 LEED Accredited Professionals (at any level; down from 83 last year) and 10 commissioning agents or professionals (CxAs or CxPs; up from 8 last year) on the team.

Table 1: Top 10 firms by gross annual revenue

Rank	Firm	Gross revenue
1	Jacobs	$16,352,414,000
3	WSP	$10,631,955,400
2	Burns & McDonnell	$7,400,000,000
6	Tetra Tech High Performance Buildings Group	$4,523,000,000
7	HDR	$3,520,000,000
5	Mott MacDonald	$2,941,646,000
4	Alfa Tech Consulting Engineers Inc.	$2,500,000,000
67	Kimley-Horn	$2,441,717,988
27	Southland Industries	$2,032,817,686
55	CDM Smith Inc.	$1,464,000,000

In the 2023 fiscal year (as defined by the company), the MEP Giants earned 85% of their MEP design revenue for U.S.-based projects, a decrease from last year (89%). Several opportunities are open to MEP Giants outside the United States. Engineering services are provided in North America (Mexico, Canada) 45% of the time. Other areas of international revenue include Asia (36%, increase from 27%), the European Union (33%, increase from 27%), the Middle East (33%, increase from 27%) and the Caribbean (26%, decrease from 28%).

When it comes to sustainable engineering, the number of U.S. Green Building Council LEED projects remained level for this reporting period at 1,230 projects. The number of projects submitted in the past fiscal year to the U.S. Environmental Protection Agency's Energy Star Buildings Label decreased substantially to 451 projects (550 projects last year), with an average of five projects completed by each of the 2024 MEP Giants, a slight decrease.

Project types

The 100 firms listed here do not handle all aspects of engineering. Many subcontract specialty services including acoustics (65%, down from 68% the previous year), computational fluid dynamics modeling (22%, down from 25%), security systems design (21%, even with last year), commissioning (20%, up dramatically from 12% last year). Other areas included construction management (17%, down from 22%) and fire/smoke systems design remained at 17% year over year.

As shown in Figure 2, MEP Giants indicated that they split their time between new construction (42%, slight drop) and retrofit/renovation (40%, slight increase). These numbers have deviated very little year over year, with a percent or two of change each year based on economic conditions. Rounding out the projects are maintenance, repair and operations (9%); commissioning or retro-commissioning (6%); and "other" (3%). For a more in-depth report on commissioning, read the November 2024 article on the Commissioning Giants.

The vast majority of MEP Giants indicated their clients included private owners (96%, slight drop), architects (88%, a decrease from 93%) and design/build projects (89%, a decrease from 93%). Government/military (88%, a slight drop from 90%) and contractors (82%, a drop from 87%) round out the top five.

The average 2024 MEP Giants firm continues to work on several projects in hospitals and health care facilities, industrial or manufacturing facilities/warehouses and utilities, public works, transportation. Remaining in the fourth and fifth spots were office buildings and government or military facilities, respectively. Figure 3 breaks down the

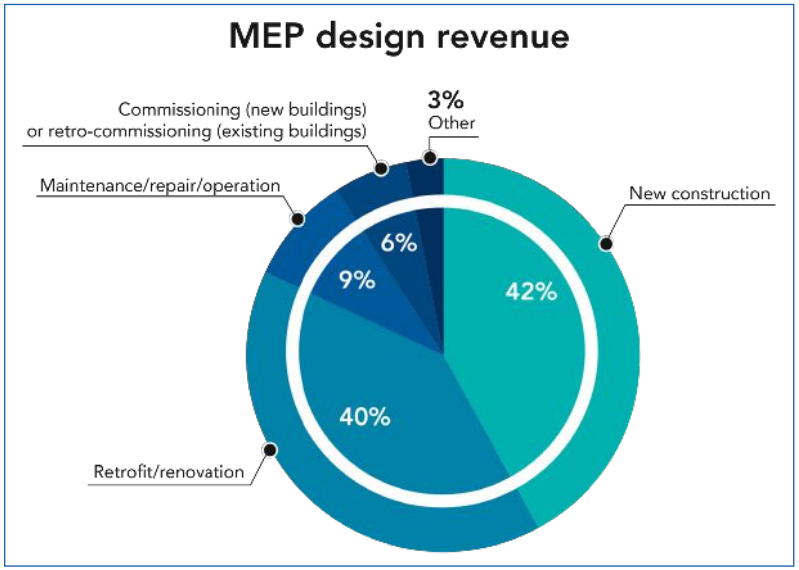

Figure 2: Very small shifts occur between new construction and retrofit/renovation each year; the 2024 MEP Giants data remains consistent with previous years. Courtesy: *Consulting-Specifying Engineer*

2024 MEP GIANTS SPECIAL REPORT

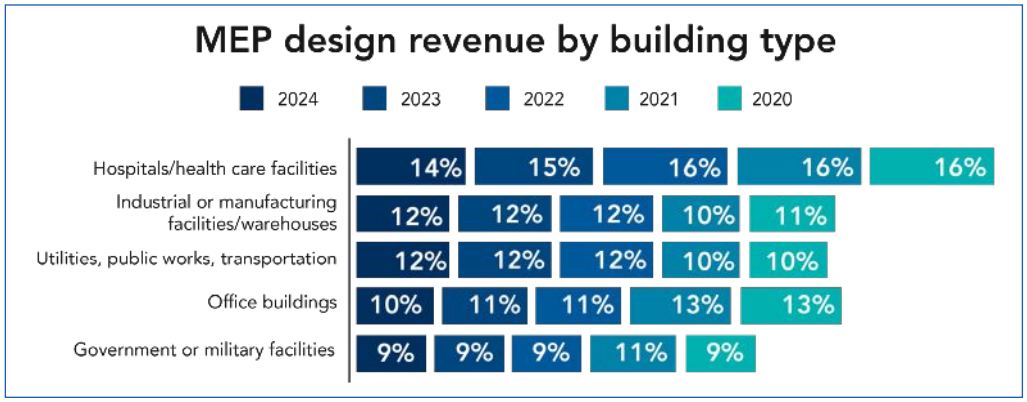

Figure 3: For the 2024 MEP Giants, the top five buildings in which the average firms earned revenue did not change from last year, and colleges/universities matched No. 5 with 9%, even with last year. For this reporting period, other building types included engineered multidwelling buildings (7%, down from 8%), K-12 schools (6%, even), data centers (7%, up from 5%) and research laboratories (5%, even). Courtesy: *Consulting-Specifying Engineer*

various building types in which the average MEP Giants firm works; the health care market was at the top for this reporting period, as it was the past eight years.

Read about several project profiles at **www.csemag.com/giants**.

Hiring and training

When asked about corporate challenge, two things rose to the top:

- The economy's impact on the construction market: 32%, up from 25%.
- Staffing: quality of young engineers: 19%, down from 26%.

About a third of respondents also selected "other," which may have included construction or supply chain issues, COVID-19 and a variety of other challenges.

The Age Discrimination in Employment Act forbids age discrimination against people who are age 40 or older, which is why the MEP Giants uses that age as a cutoff. For this reporting year, an average of 50% of the 2024 MEP Giants staff is 40 years old or younger.

Survey methodology

At the beginning of 2024, the *Consulting-Specifying Engineer* staff collected and analyzed data from several consulting and engineering firms. Some of the top mechanical, electrical, plumbing and fire protection engineering firms submitted their firms' profiles to *Consulting-Specifying Engineer*; however, not all consulting firms were willing or able to participate in this year's MEP Giants survey. The smallest amount of MEP design revenue reported this year was more than $16 million, an increase from $12.8 million in the last reporting period. Some firms were unable to report final data.

In 2024, more than 100 engineering firms provided their information for the MEP Giants program, with some newcomers or firms reentering the program. Data and percentages are based on the top 100 companies that responded to the request for information; the results do not fully represent the construction and engineering market as a whole. However, with nearly identical questions asked in previous years and more than 100 engineering firms participating this year, we present a qualified portrait of where the top engineering firms stand in 2024.

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Learn more about Domestic Preference at
Eaton.com/strongerfuture

Maximizing the value of critical energy and infrastructure projects

With the U.S. government making significant investments in infrastructure, there are big opportunities to move critical projects forward and maximize returns. Are you able to make the most of the federal dollars to help your customers?

The American Rescue Plan Act (ARPA), Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA) are all part of one of the largest infrastructure packages in decades – helping improve the ROI on clean energy projects through a combination of direct funds, grants, tax credits, incentives and rebates. Securing these types of funding and incentives requires a deep understanding of domestic content requirements. Many valuable tax credits and financial support are often not tapped due to lack of familiarity. Fortunately, Eaton has the expertise, domestic manufacturing capabilities and an extensive network of application engineers to provide the valuable support you need when working on projects that have the potential to qualify for federal incentives or funding.

Importantly, we build in the region, for the region, and we're increasing our already vast manufacturing footprint. We recently announced nearly $750 million in North American manufacturing investments for foundational electrical equipment used across commercial building, healthcare, data center, industrial markets and more. These investments enable us to increase production capacity for essential technologies, expand existing manufacturing facilities, add new manufacturing locations and strengthen our distribution capabilities. These investments are part of our longtime and steady investments in U.S. and North American manufacturing.

We also know what it takes to make the most of federal incentives. We were recently awarded **more than $26.6 million in investment tax credits** from the U.S. Internal Revenue Service as part of the Qualifying Advanced Energy Project Tax Credit (48C) through the IRA. These tax credits were awarded for our company's manufacturing investments of more than $200 million to support clean energy projects

Eaton domestic transformer manufacturing facility, Nacogdoches, TX

and workforce training in Nacogdoches and El Paso, Texas and Waukesha, Wisconsin.

Let's look at the types of clean energy and infrastructure projects that qualify and what's required.

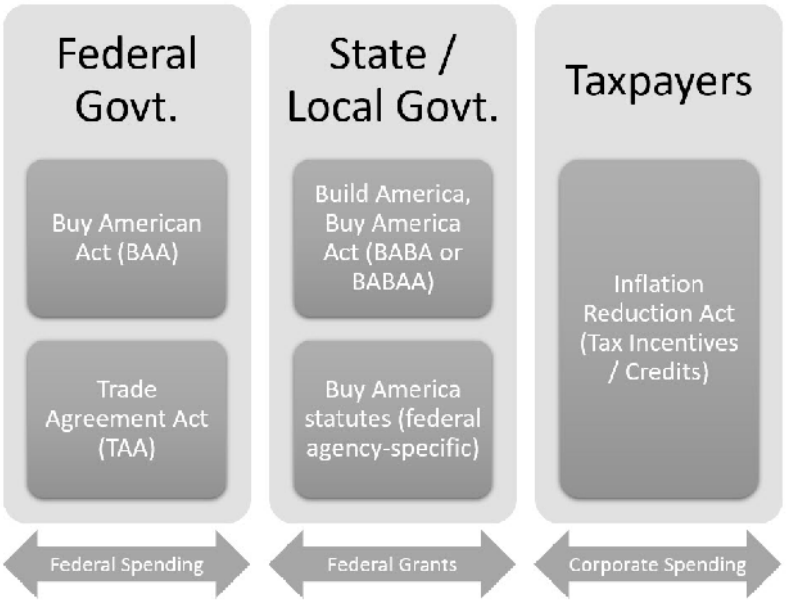
Qualifying for federal funding and domestic preference requirements

By understanding the infrastructure funding vehicles and domestic preference requirements, you can help your clients think proactively about available programs during the design phase.

There are multiple statutes in play that can help improve the ROI on qualifying projects. Each one has applicable rules and regulations and qualifying organizations. For example:

- The Buy American Act and Trade Agreement Act are federal spending vehicles for infrastructure projects
- The Build America, Buy America Act and Buy America statutes apply to state and local governments
- The IRA tax credits are available for taxpaying organizations, providing tax credits and incentives

"Domestic preference" refers to requirements imposed on contractors and suppliers regarding the origin and composition of products or materials used in projects seeking federal funding or tax incentives. These requirements are governed by statutes that mandate different levels of preference for goods, products and materials produced domestically.



These funding and incentive programs foster economic growth and job creation while putting significant projects within financial reach like never before. Fundamentally, the U.S. government works to ensure greater inclusion of U.S.-manufactured equipment, playing an important role in promoting domestic manufacturing.

The chart on the next page illustrates the types of funded projects in which domestic preference apply and the basic evaluation requirements.

To obtain tax credits, suppliers and contractors must diligently certify the origin of materials and products to comply with domestic content requirements. This often entails providing detailed documentation, such as certifications of compliance or affidavits of origin, to demonstrate adherence to the established standards.

Top federal domestic preference statutes				
	Buy American Act (BAA)	**Buy America**	**Build America, Buy America (BABA or BABAA)**	**Trade Agreement Act (TAA)**
Analysis of domestic preference				
Project type	Direct federal purchases (courthouses, VA hospitals, military bases, national laboratories, federal datacenters, NASA, etc.)	Roads, tunnels, bridges, public transit systems – buses, subways, light rail, commuter rail, trolleys, and ferries	Any IIJA Funded project	Any
Requirements				
Manufacturing location	U.S. (outlying territories may be included, depending on which federal acquisition regulation (FAR) applies)	U.S. (outlying territories may be included, depending on which FAR applies)	U.S.	U.S and territories, and designated countries
Iron and steel origin	Not applicable if final product is manufactured in U.S.	Not applicable if final product is manufactured in U.S.	U.S. origin	Not applicable
Component level review (percent U.S. content)	Component level is **not** applicable, if manufactured in the U.S. and defined as commercial-off-the-shelf (COTS)	Determined by the federal government department / agency that is funding the project	55% U.S. origin to comply; if component level not met, a waiver is required	Component level is **not** applicable if manufactured in the U.S. and its territories, or designated countries and defined as COTS

When requirements become embedded in federal acquisition regulations, they never go away. For example, Build America, Buy America is here to stay and will likely be adopted by many agencies as a standard. Some federal agencies are already leaning that way. For example, the Federal Highway Administration (FHWA) already announced that Build America, Buy America is its standard.

Consulting engineers plays vital role in project qualifications for incentives

Increase your value to your clients through knowledge and expertise around available funding through clear documentation:

- Maximize working capital
- Reduce construction delays and change orders

Download our **Domestic Preference specification insert language**.

How government funding is playing out across industries

Federal stimulus initiatives are funding major improvements to the nation's aging infrastructure, while reducing our carbon footprint. Projects across sectors, including those below, stand to substantive benefit:

- Affordable housing
- Clean water and wastewater
- Government buildings
- Grid modernization
- Healthcare and education
- Transportation infrastructure
- Vehicle electrification and EV charging infrastructure

The U.S. government is heavily investing to reshore manufacturing and enable far more resilient and sustainable infrastructure. This means planned and new projects advancing a clean energy future are moving forward and there are substantial opportunities to save. Specific requirements vary according to which U.S. government agency is responsible for administering the funding and the applicable program.

8 ways manufacturers can help you maximize the value of federal funding

Work with vendors that have both the expertise to navigate the government stimulus funding process as well as the domestically produced solutions and services to enable critical infrastructure upgrades or improvements.

1. ***Understanding the requirements:*** *Look for manufacturers with a proven track record of successful projects. That requires support for project design and equipment specifications effectively addressing domestic preference requirements and the government's rigorous standards.*

2. ***Providing industry-leading solutions aligning with domestic preference requirements:*** *Leverage U.S. manufacturers' support to inform project designs that simplify adherence to domestic preference requirements (and can help your customer(s) obtain applicable tax credits).*

3. ***Streamlining infrastructure and clean energy projects with turnkey project support:*** *Manufacturers with a comprehensive project management approach can simplify the execution of infrastructure and clean energy projects—from determining the scope of work to designing specifications, creating bill of materials, and aligning projects with available funding and tax incentives.*

4. ***Simplifying domestic preference reporting:*** *Accurate calculations of U.S. content for components and solutions is vital and your vendors must provide needed information to help you enable compliance with regulatory requirements while maximizing returns.*

5. ***Helping navigate required documentation:*** *Whether it's providing essential information for applying for waivers or documentation necessary for you to investigate and obtain tax credits, a good project partner needs to ensure seamless compliance with regulatory mandates.*

6. ***Assisting with funding applications and maximizing ROI:*** *Comprehensive assistance throughout the funding application process may be helpful, be sure that your vendor is ready. Manufacturers may be able to provide grant writing support and review project scope to identify potential tax credits that may be applicable to your project, ensuring your customer can maximize the return on their investment.*

7. ***Committing to your goals:*** *Confidently navigate complex regulatory landscapes and transform your customer's vision into reality with manufacturers ready to provide the solutions, services and needed information to take advantage of available government incentive programs.*

8. ***Demonstrating success:*** *Confidence in your vendors is essential. Is your vendor ready to share project successes? Do they have proven results in your industry or related verticals? This evidence of capabilities makes it easier to trust your project partners.*

*Download our **white paper on federal funding and incentive programs** today to learn how you can help your clients receive substantial and valuable awards to support their commitment to advancing clean energy projects.*

For example, airport projects have complex requirements administered by the Federal Aviation Administration (FAA) and apply the Build America, Buy America Act. We've worked with customers across the U.S. to successfully navigate the requisite funding requirements and many of these projects are funded or nearly funded and moving forward.

A broad range of transit projects are also moving forward under the U.S. infrastructure investments—including public transit, port electrification and electric vehicle (EV) charging infrastructure. Many transit projects also use Build America, Buy America funding and we're providing the equipment and services needed to help accelerate projects.

Schools are also able to utilize infrastructure investments to modernize existing facilities and construct new ones. When schools are used as emergency and/or disaster recovery facilities, additional funding is available.

Let's take a more detailed look at how infrastructure investments are impacting industrial, healthcare and water infrastructure projects.

Significant new opportunities for healthcare and hospital projects to decarbonize

Congress approved $4 billion plus dollars to support modernization and new construction of hospitals, schools and affordable housing. For healthcare organizations, including not-for-profits, there are substantial opportunities to accelerate decarbonization and support always-on power with infrastructure investments, new transferability rules, and the relatively new ability to use microgrids for emergency power. At Eaton, we help healthcare organizations electrify to decarbonize, apply renewables to meet new energy demands sustainably, and digitalize to make smarter energy decisions.

Eaton's Power Systems Experience Center, Houston, TX

The Internal Revenue Service (IRS) updated the transferability rules, which opens new opportunities for not-for-profit healthcare organizations. Now, there are two options to access transferable credits: through elect pay and transferability.

Elect pay applies to certain tax-exempt entities and government (501C organizations, for example) or state government or school systems, whereas healthcare organizations may receive a direct refund. It is important to note that there is a process to apply, which involves seeking a registration number with the IRS.

Transferability enables certain organizations to sell their credits to another party, monetizing credits. Organizations that do not qualify for elect pay can use the transferabil-

ity option to take advantage of the recent infrastructure funding. It is important to work with the IRS at the outset of a project to understand which option is available to your customer, apply for the needed registration number and prepare the required documentation.

Further, healthcare organizations can take advantage of the recent update to requirements for emergency power, which is no longer limited to generators. In 2023, the Centers for Medicare and Medicaid Services (CMS) announced a categorical waiver that permits new and existing healthcare facilities to use alternative sources of power. In other words, healthcare organizations can put this new rule to work and potentially qualify for tax credits if the alternative sources of energy will help reduce carbon footprint and advance sustainability. Using a microgrid that coordinates onsite sources (like solar, fuel cells or battery energy storage systems) is more sustainable, resilient and reliable than relying solely on diesel-generator sets.

The **IRA** is helping healthcare organizations make these clean energy projects financially feasible. Already, more than 100 healthcare organizations (1,000-plus facilities) have signed the White House and Department of Health and Human Services (HHS) Health Sector Climate pledge to cut greenhouse gas emission 50% by 2030 and achieve net-zero emissions by 2050.

Modernizing critical clean water and wastewater infrastructure

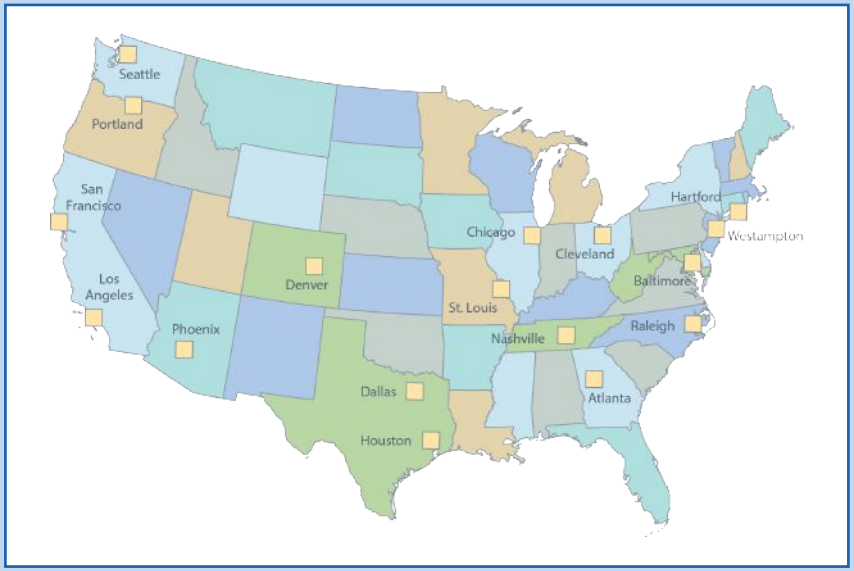
There's about $55 billion dollars approved by congress for clean water and wastewater infrastructure through the American Rescue Plan and the Infrastructure Investment and Jobs Act (IIJA). Additionally, there are funds available through the U.S. Environmental Protection Agency (EPA) for wastewater projects. Much of this funding is at the state level, giving municipalities powerful opportunities to modernize and improve the resiliency of water infrastructure.

For example, we are working with the Miami-Dade Water and Sewer Department (WASD) to improve the sustainability, resilience and safety of critical wastewater treatment facility . This project supports a new electrical distribution facility that will enable the WASD to provide a more resilient response in the event of a power failure by incorporating a facility hardening and design measures to protect assets against severe weather like hurricanes. At Eaton, we worked closely with the consulting engineer to both support the design and help navigate the funding and tax incentives.

Eaton manufacturing satellites deliver local, custom and quick solutions

In addition to our large flagship plants, we have more than 20 North American manufacturing satellite facilities, strategically located in major metro areas across the U.S. and Canada. We established these "satellite plants" back in the 1970s to help compress project schedules. These facilities expedite engineering, sourcing and materials with an agile labor force and management.

Eaton manufacturing satellites provide localized manufacturing, support and knowledge. They are optimized for region-specific services and provide the flexibility to deliver products based on unique specifications and situations. Our satellite manufacturing



facilities have deep knowledge and can configure equipment to meet local codes and requirements.

Many of these facilities also provide emergency services, local industry training and education, as well as custom and standard manufacturing capabilities. At these facilities and beyond, we provide application engineering and design support, local engineering expertise, and a range of customized solutions. Learn more about our ***regional manufacturing capabilities****.*

This project is a significant capacity expansion of WASD's South District Wastewater Treatment plant. The total program investment of $600 million is the first substantial capacity expansion for the plant since the 1990s. Once completed, the plant's permitted treatment capacity will increase by 16%—from 112.5 to 131 million gallons per day (MGD)—and will increase the facility's wet weather (peak) flow capacity from 285 MGD to 305 MGD.

Eaton's solutions will help the county energize new and existing treatment processes to maintain a more robust and resilient facility. The project relies on a wide range of Eaton's intelligent power management solutions including transformers, arc-resistant medium- and low-voltage switchgear, medium-voltage motor controls, motor control centers, switchboards, and panelboards. The facility will also incorporate Eaton's intelligent switching devices to help maintain critical uptime during unplanned outages. Additionally, Eaton will provide the municipality with turnkey electrical engineering services, power system studies, and onsite equipment and maintenance training.

Building a stronger future today for tomorrow

Today's infrastructure funding will propel projects and improve ROI. With the recent infrastructure investments, new projects and opportunities continue to become available into the future. Understanding the opportunities around domestic preference requirements, and resources available for system designers and owners, is essential to move projects forward expeditiously. By working with manufacturers early in the process, you streamline and move projects forward while maximizing the value of your customers' total investments.

At Eaton, we're ready to help you understand the domestic preference requirements through our dedicated and expansive network of field-based application engineers and a dedicated domestic preference program. We've developed a **resource library for consultants** that includes design guides, catalogs, BIM models and more. Additionally, we have information at the ready on **U.S. infrastructure investments building a stronger future**. You can count on our dedicated team and longtime experience in delivering on successful projects for government agencies.

We're also making steady investments in our expansive U.S. manufacturing footprint to help accelerate projects. Plus, we already understand the funding requirements and were among the first companies to receive investment tax credits from the IRS as part of the Qualifying Advanced Energy Project Tax Credit (48C) funded by the IRA.

You need the knowledge to not only make these projects happen from an engineering standpoint, but also to navigate federal processes to maximize value along the way. This capability will set you apart as a trusted stakeholder in our world's current energy transition. At Eaton, we stand ready to help you get there.

Powering Business Worldwide

Nick Belitz, CVA, Morrissey Goodale LLC, Denver

One-quarter of MEP Giants finalized a deal last year

Although cooling from record highs, M&A activity by the 2024 MEP Giants remained robust

Booming backlogs, flush balance sheets and robust valuations have sparked a post-pandemic acquisition spree by *Consulting-Specifying Engineer*'s MEP Giants that continued into 2023. As a group, the largest mechanical, electrical, plumbing (MEP) and fire protection engineering firms completed 54 transactions in 2023 with one-quarter (25%) of the 2024 MEP Giants finalizing at least one deal.

Although merger and acquisition (M&A) activity remained at historically high levels last year, the pace of deal-making by the MEP Giants cooled from the record-setting 70 transactions in 2021 and a still-high 65 deals in 2022. While widespread predictions of a recession and the higher costs of debt that resulted from sharp interest rate hikes as the year progressed likely contributed to the dip in deals in 2023, pricing could also have been a factor.

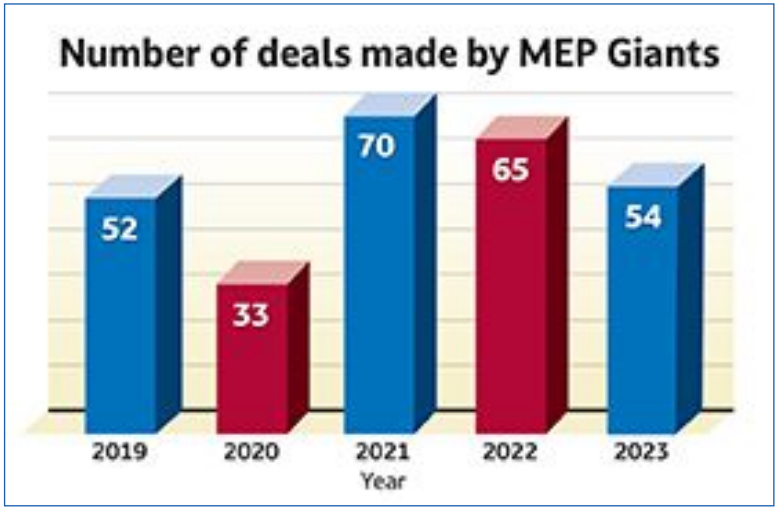


Figure 1: The number of deals made by the 2024 MEP Giants firms in fiscal year 2023 fell from the prior two years but remained high by historic standards. Courtesy: Morrissey Goodale

According to Morrissey Goodale's propriety database of architecture, engineering (AE) and environmental industry deals, MEP firms in 2023 garnered very strong prices relative to historical norms, which could have deterred MEP Giants pursuing sellers in competitive processes, particularly those that are employee-owned firms.

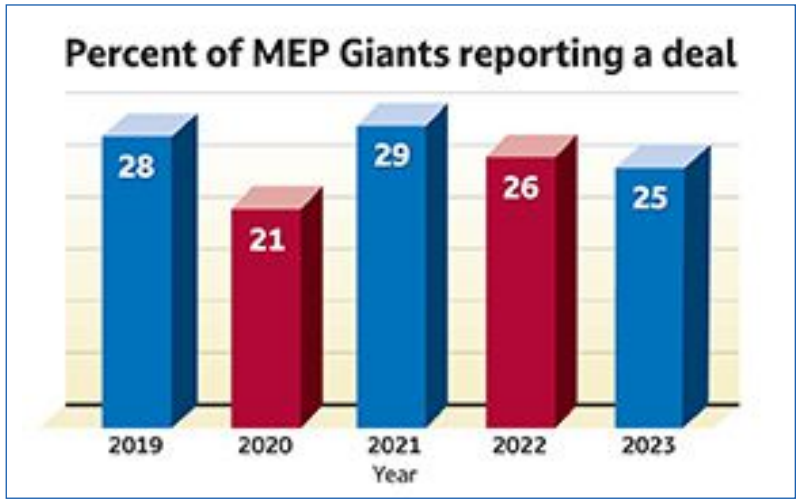


Figure 2: In 2023, 25% of the MEP Giants reported a transaction, nearly on par with the percentage of companies that completed deals the prior year. Courtesy: Morrissey Goodale

M&A activity by MEP Giants mirrors overall industry

The slight dip in M&A activity among the 2024 MEP Giants reflected the AE and environmental industry. With 658 industry deals worldwide, 2023 was another historically high year for global transactions. While down 9% from the record-high 724 deals in 2022 and slightly behind the 2021 total of 661 transactions, last year's global M&A deal volume remained a step function above pre-pandemic levels. Domestically, the 444 transactions concluded in 2023 matched the 2021 total and only trailed the 484 deals recorded in 2022, the high-water mark for industry consolidation.

As with the broader AE and environmental industry, Sun Belt firms continue to be the most attractive M&A targets for MEP Giants. With six deals each, California and Florida were the top states where MEP Giants completed acquisitions in 2023. That was followed by New York with five transactions and Texas and Pennsylvania with three each. MEP Giants also concluded nine international deals, led by the purchases of three firms in Australia and two in Canada.

Publicly traded MEP Giants most active buyers

Publicly traded firms were the most prevalent buyers among the 2024 MEP Giants, far outpacing their role in the wider AE and environmental industry. Although publicly traded buyers accounted for just 8% of U.S. domestic AE and environmental industry deals in 2023, these buyers executed 43% of the transactions made by the MEP Giants.

Somewhat surprisingly given recent trends, private equity-backed buyers were responsible for 20% of deals consummated by the MEP Giants in 2023, down slightly from 26% in 2022 but far lower than the 39% of acquisitions attributed to them across the entire industry last year. While employee-owned buyers closed more than half (53%) of AE and environmental industry transactions in 2023, they represented 30% of deals completed by the MEP Giants last year, up from 25% in 2022.

There are several reasons that publicly traded firms have executed the most transactions involving MEP Giants. First, publicly traded firms generally have even easier access to capital than private equity firms, particularly in a higher interest rate environment such as occurred in 2023. The increased cost of debt restricted the available flow of capital from private equity-backed buyers to sellers.

Second, public buyers typically self-finance transactions without the need to borrow money or solicit third-party lenders

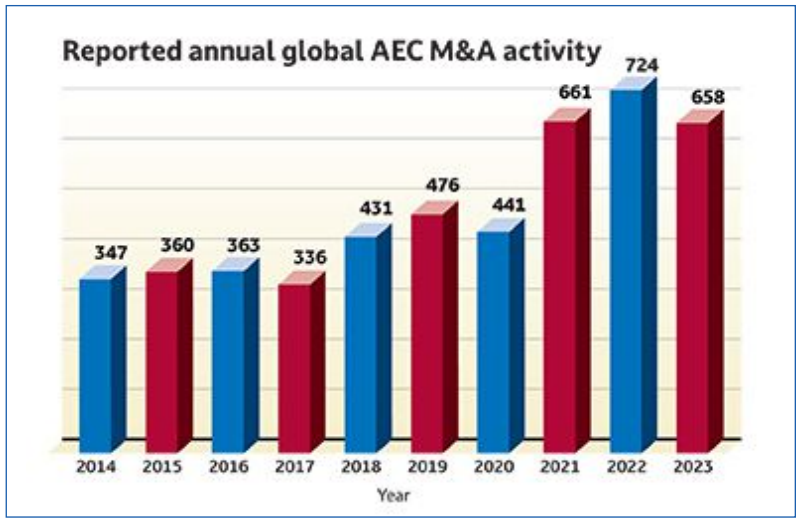


Figure 3: Global merger and acquisition activity in the architecture, engineering (AE) and environmental industry slid back in 2023 from 2022's record high. Courtesy: Morrissey Goodale

or other stakeholders beyond the board of directors. Third, data collected by Morrissey Goodale indicate that publicly traded firms, all else being equal, pay more than even private equity-backed firms to complete deals, thus making more attractive offers to sellers.

Bowman most active buyer among MEP Giants

Since its initial public offering in 2021, MEP Giant Bowman (Reston, Virginia) has pursued acquisitions as a key part of its growth strategy, and last year proved no exception. The publicly traded firm, which earlier this year won Morrissey Goodale's Most Prolific and Proficient Acquirer Award, completed a dozen deals in 2023 that added more than 400 employees in 11 states. That's on top of the eight transactions it concluded in 2022.

Additional MEP Giants that continued recent buying sprees included IMEG (Rock Island, Illinois), Salas O'Brien (Santa Ana, California) and NV5 (Hollywood, Florida), each of which consummated six transactions. Other MEP Giants that made multiple deals in 2023 were Page (Washington, D.C.), Stantec (Edmonton, Canada), Jensen Hughes (Baltimore), WSP (Montreal, Quebec) and RTM Engineering Consultants (Schaumburg, Illinois).

With 2024 on track to be another stellar year of revenue growth and profitability, unprecedented demand from clients, sustained interest from public equity and substantial public-sector and institutional funding will continue to drive M&A activity among MEP firms. Even the greatest challenge confronting the AE and environmental industry — the talent crunch — carries with it a silver lining for deal-making. As MEP firms struggle to staff all the projects coming through their doors, they are responding not just by investing more in people and technology — but also in acquisitions to quickly boost headcounts.

Since the start of 2021, the domestic AE and environmental industry has experienced a dramatic acceleration in deal-making — with more than a merger a day. Despite geopolitical conflicts abroad and political uncertainty at home, Morrissey Goodale expects the volume of M&A activity to remain elevated in 2024 and beyond as firms look to expand their capabilities, tap into new markets, and gain a competitive edge in an ever-changing business landscape.

***Nick Belitz, CVA**, is a Principal with Morrissey Goodale LLC, a management consulting and research firm that exclusively serves the architecture, engineering and environmental consulting industry. Morrissey Goodale is a WTWH Media content partner.*

MEP GIANTS 2024

Thank you for downloading the 2024 MEP Giants eBook!

Direct questions about MEP Giants to:
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