

Association of Energy Engineers

2024 Energy Jobs & Market Trends Survey

Summary of Findings

2024

Advancing Energy Efficiency and Driving the Global Energy Transformation

With over 17,000 members and 32,000 certified professionals in more than 120 countries, the Association of Energy Engineers (AEE) remains a leader in advancing sustainable practices across the global energy landscape.

As a non-profit, AEE is dedicated not only to serving its members but also to supporting a broader community of professionals committed to transforming energy systems and reducing environmental impacts. Our mission goes beyond enhancing energy efficiency—we are at the forefront of promoting cutting-edge technologies, fostering industry collaboration, and setting standards for environmental stewardship. We empower professionals to make buildings more efficient, lower greenhouse gas emissions, and contribute to achieving global net-zero targets.

Our success stems from an extensive, trusted network built on expertise and collaboration. Through our educational programs, certifications, conferences and expos, we provide platforms for sharing knowledge, sparking innovation, and driving professional development. These initiatives help ensure energy professionals are prepared to meet the industry's evolving challenges and opportunities.

This annual Energy Jobs & Market Trends report offers a thorough analysis of the current state of the energy sector, while projecting future trends and highlighting areas of growth. By delivering key data and insights, we aim to support informed decision-making, inspire innovation, and align industry efforts with global sustainability goals.

Thank you for joining us on this transformative journey. Together, we are shaping a more sustainable, efficient, and prosperous future for the global energy industry.



Our Vision

Leading the global energy community to meet the challenges of a clean and sustainable future

Our Mission

To shape the future of the energy industry through networking, energy awareness, education, training, professional certification and recognition



Our Values

We Value People First

Making a positive impact in peoples' lives while delivering high-quality and responsive service.

We are a Global Family

Treating all with mutual respect, honor, dignity, and loyalty as we work together towards a common goal.

We are Guided by the Highest Standards

Upholding the highest levels of professionalism, integrity, impartiality, honesty, ethical conduct, and attitude in all relations.

We Celebrate Diversity and Inclusion

Modeling and promoting the benefits of a diverse and inclusive environment with equity for all.

We are Innovative

Continuously striving for professional and personal growth and looking for creative solutions to evolve and adapt to be at the forefront of the industry and our operations.



Objectives & Methodology

Since 2018, AEE has conducted an annual survey of its members to create an energy job and market trends report, shared as a benefit to its members.

In 2024, an updated version of the survey was fielded among membership to generate data for the annual summary.

This survey:

- Fielded from May – July 2024
- Took approximately 7 minutes to complete
- Received **1383** total surveys
- Has a margin of error of +/-3% at the 95% confidence level
- Global representation among completed surveys:

Region	n = 1376*
North America	888
Middle East & North Africa	173
Sub-Saharan Africa	108
Europe & Central Asia	93
Latin America & Caribbean	61
East Asia & Pacific	34
South Asia	19

*Respondents who answered 'other' were not grouped into regional totals, but are included in the 'Total' analysis



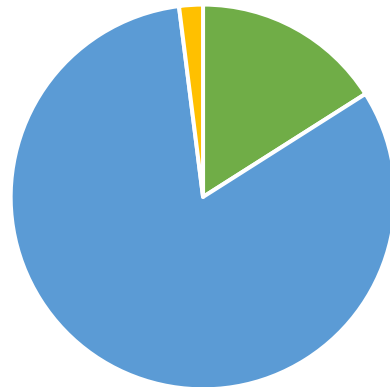
Demographics: Gender & Age

*What is your current age?
What is your gender?*

For the second year, this survey included basic demographic questions of age and gender.

This year's survey had slightly higher participation among those aged 25 – 29, and female participation was up 3% over 2023.

Age	2023	2024
24 or younger	1.5%	1.5%
25 – 29	5.6%	8.0%
30 – 39	23.2%	23.6%
40 – 49	22.4%	24.7%
50 – 59	21.3%	19.2%
60 – 69	18.9%	16.7%
70+	6.2%	5.2%
Prefer not to answer	0.8%	0.8%



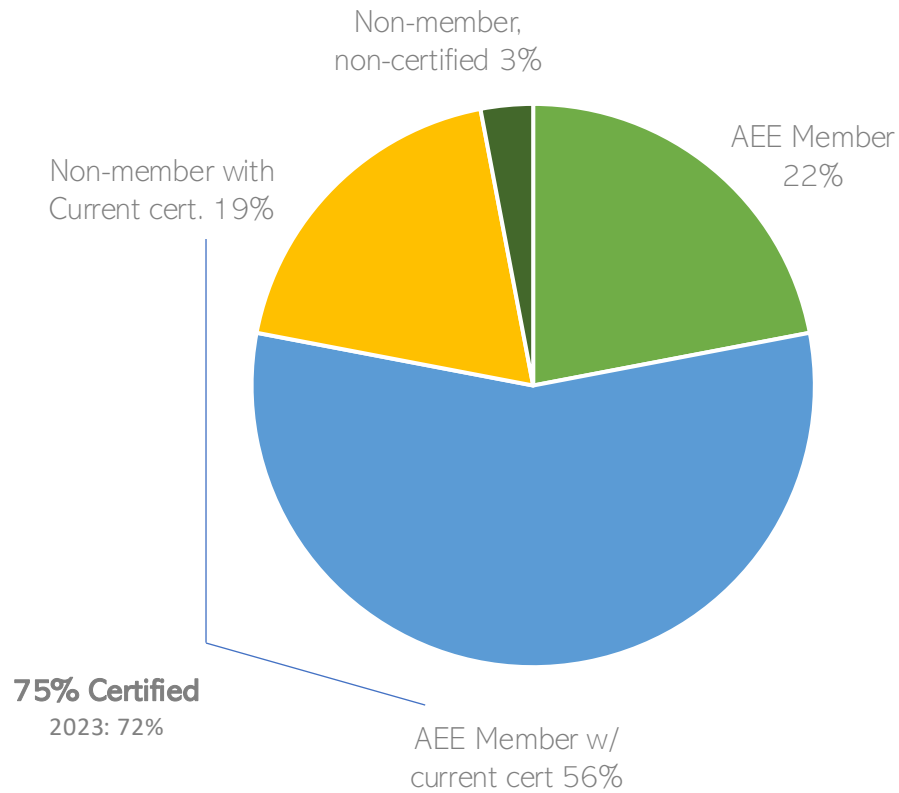
Gender

- Male 82%
- Female 16%
- Other / NA 2%



Who Responds to Our Survey

What is your current relationship with AEE?
 What is your role in your company/organization?



	Member	Member with an AEE Certification	Non-Member with an AEE Certification	
Engineer	5.6%	21.1%	7.2%	33.9%
Manager	5.6%	16.2%	6.0%	27.8%
Executive	2.8%	5.1%	1.6%	9.5%
Owner	2.6%	6.9%	1.2%	10.7%
Projects / Integration	1.1%	3.9%	1.3%	6.3%
Sales / Marketing	0.9%	1.6%	0.4%	2.9%
Maintenance / Support	0.7%	0.9%	0.9%	2.5%
Instructor / Professor	0.7%	0.3%	0.1%	1.1%
Retired	0.5%	0.5%	0.3%	1.3%
	20.5%	56.5%	19%	

% per group

Organizations & Responsibilities

How would you classify your company / organization?

What is your primary responsibility in your company/organization?

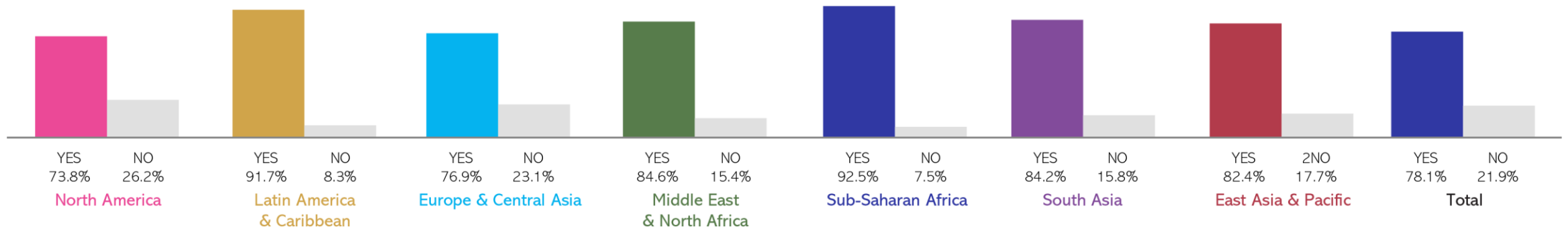
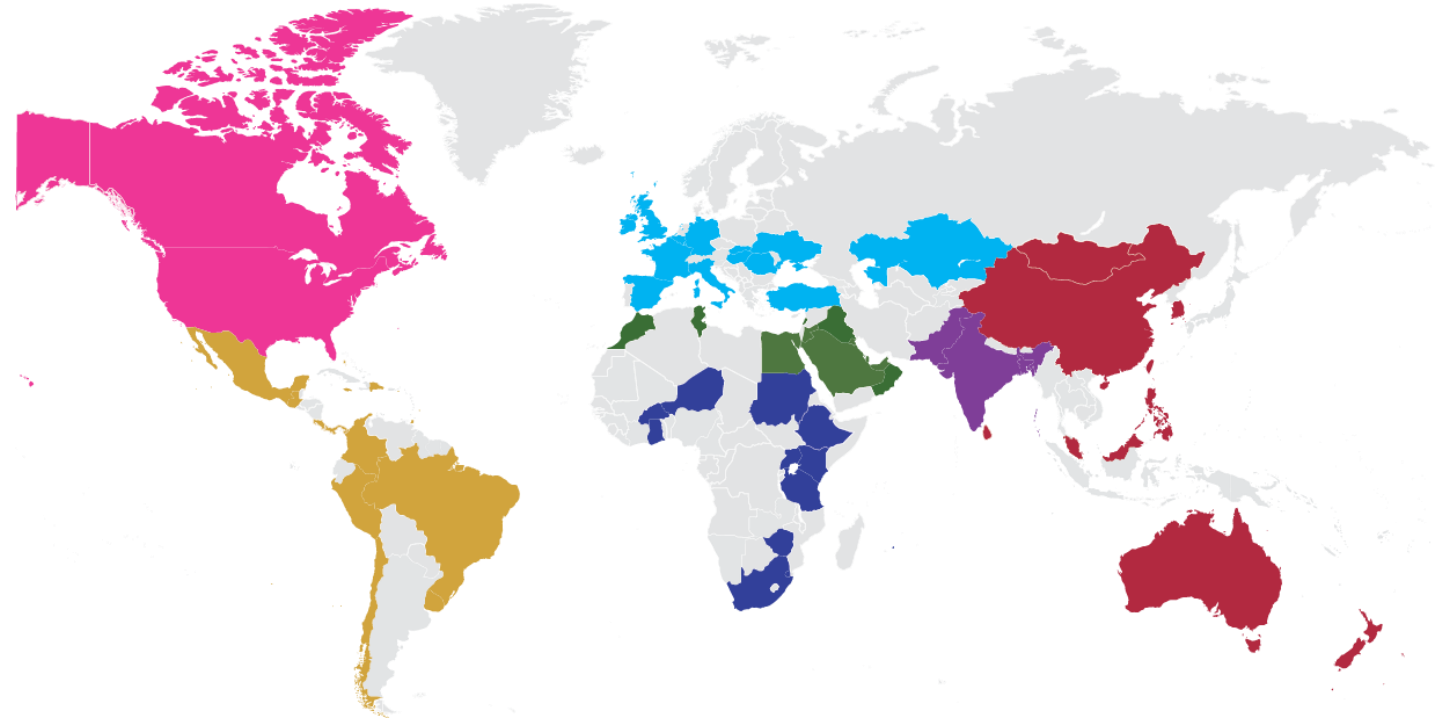
Organizations	Member	Member with an AEE Certification	Non-Member with an AEE Certification	% per Org
Consultant	8.2%	18.6%	6.3%	33.1%
Government	2.6%	7.5%	4.1%	14.2%
Contractor	2.1%	4.7%	1.2%	8.0%
Institutional	1.6%	3.3%	1.1%	6.0%
Manufacturer	1.4%	3.3%	0.9%	5.6%
Energy Service Company (ESCO)	1.4%	7.1%	2.1%	10.6%
Utility	1.4%	3.6%	1.2%	6.1%
Industrial	1.0%	3.8%	0.9%	5.6%
Technology / Product / Systems / Solutions	0.9%	2.7%	0.9%	4.4%
Commercial	0.8%	2.5%	0.4%	3.7%
	21.2%	57.1%	19%	

Responsibilities	Member	Member with an AEE Certification	Non-Member with an AEE Certification	% per Role
Energy Efficiency	10.1%	28.1%	10.4%	48.7%
Project Management	4.0%	8.5%	2.7%	15.1%
Sustainability Management	1.8%	4.5%	1.2%	7.5%
Facility(s) Management /Operations	1.6%	6.7%	2.4%	10.6%
Sales/Marketing	1.5%	2.1%	0.7%	4.3%
Account Management	0.7%	1.1%	0.4%	2.1%
Building(s) Management/ Operations	0.6%	2.0%	0.5%	3.0%
Energy Procurement	0.5%	1.6%	0.5%	2.6%
Carbon Reporting Responsibility	0.1%	0.6%	0.3%	0.9%
ESG (Environmental Social Governance) Responsibility	0.0%	0.7%	0.3%	1.0%
	20.7%	55.8%	19.3%	

Workforce Perceptions

Do believe there is a shortage today of energy efficiency professionals?

Over 75% of respondents in every global region felt there is a shortage of energy efficiency professionals, with the feeling especially strong in Latin America and Sub-Saharan Africa with over 90% of respondents answering “yes”.



Workforce Perceptions

When do you plan to retire?

One third indicate they will be retiring within the next 10 years, opening the door for new and rising professionals in the industry. North America, Sub-Saharan Africa, and Latin America & Caribbean are the regions with the most planned retirements in the next 5 years.

Plan to Retire? (Q9)	North America	Latin America & Caribbean	Europe & Central Asia	Middle East & North Africa	Sub-Saharan Africa	South Asia	East Asia & Pacific	Total
Within next 5 years	21.3%	11.7%	4.4%	8.3%	12.2%	10.5%	8.8%	17.0%
Within next 10 years	17.1%	11.7%	13.2%	11.2%	15.9%	10.5%	14.7%	15.6%
10+ years	56.9%	73.3%	80.2%	79.3%	68.2%	57.9%	70.6%	63.3%
Retired / Not applicable	4.7%	3.3%	2.2%	1.2%	3.7%	21.1%	5.9%	4.2%

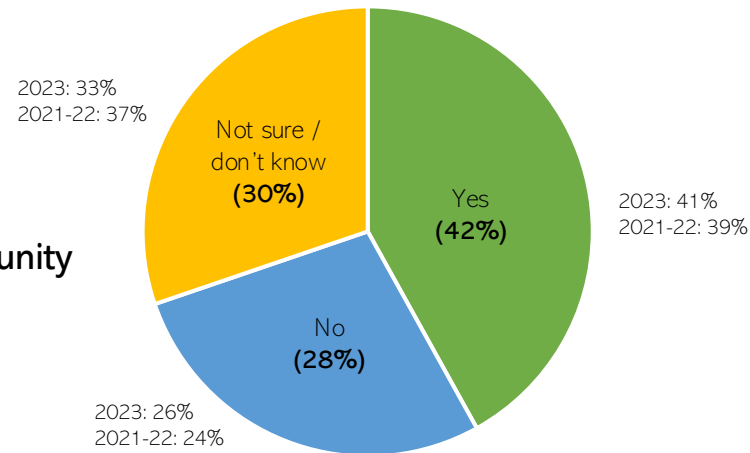
Opportunities In Workforce (by Region)

Does your company plan to hire energy professionals in the next 12 months?

Plan to Hire?	North America	Latin America & Caribbean	Europe & Central Asia	Middle East & North Africa	Sub-Saharan Africa	South Asia	East Asia & Pacific
Yes	45.9%	43.3%	45.1%	30.2%	32.7%	15.8%	38.2%
No	27.2%	26.7%	29.7%	29.6%	34.6%	10.5%	26.5%
Not sure / don't know	26.9%	30.0%	25.3%	40.2%	32.7%	73.7%	35.3%

Despite global economic challenges and political turmoil, job opportunities for energy professionals remains consistent.

Global Opportunity 2024



Opportunities In Workforce (by Sector)

Does your company plan to hire energy professionals in the next 12 months?

ESCOs and Utilities indicate strong hiring intentions in the next year, followed by Consultancies and Contractors.

Plan to Hire?	Yes	Unsure / Don't Know	No
Energy Service Company (ESCO)	64%	19%	17%
Utility	54%	28%	19%
Consultant	47%	30%	23%
Contractor	43%	26%	32%
Manufacturer	39%	22%	38%
Government	37%	30%	34%
Commercial	37%	24%	39%
Technology/Product/Systems/Solutions	34%	46%	20%
Industrial	25%	36%	39%
Institutional	20%	41%	39%

Industry Certifications

Select any of the following credentials you hold. (Select all that apply)

In 2024 we continue to see a large portion of AEE Members and professionals keep certification and licensure.



Certified Energy Managers
69%

2023: 68%
21-22: 80%
2019: 75%



Other AEE Certifications
45%

2023: 49%
21-22: 40%
2019: 39%



P.E. License
25%

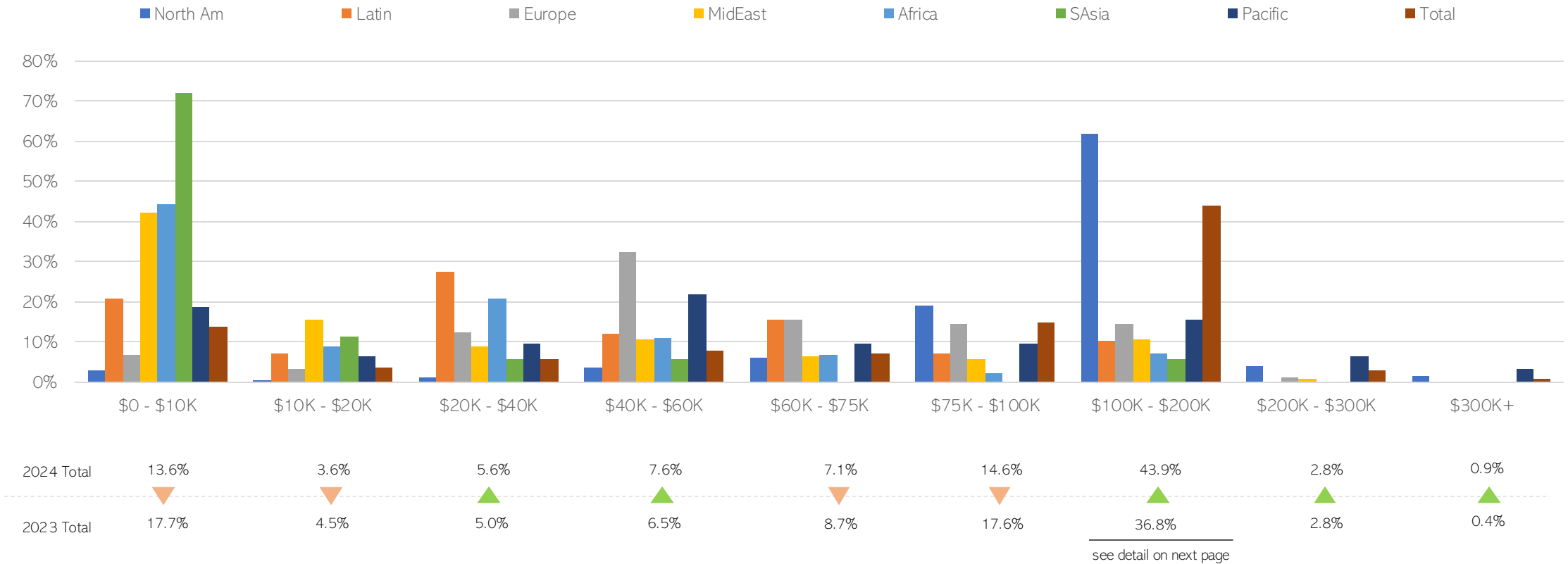
2023: 26%
21-22: 26%
2019: 24%

Industry Certification	Total
AEE Certified Energy Manager (CEM)	68.9%
AEE Certified Energy Auditor (CEA)	11.9%
AEE Certified Measurements and Verification Professional (CMVP)	15.2%
AEE Certified Building Commissioning Professional (CBCP)	5.5%
Other AEE Certification(s)	12.7%
Professional or Licensed Engineer	24.3%
Architect	0.7%
Other / None	21.6%

Income

Please input your base salary (in \$USD) as of January 1, 2023.

Responses show differences in compensation by region.

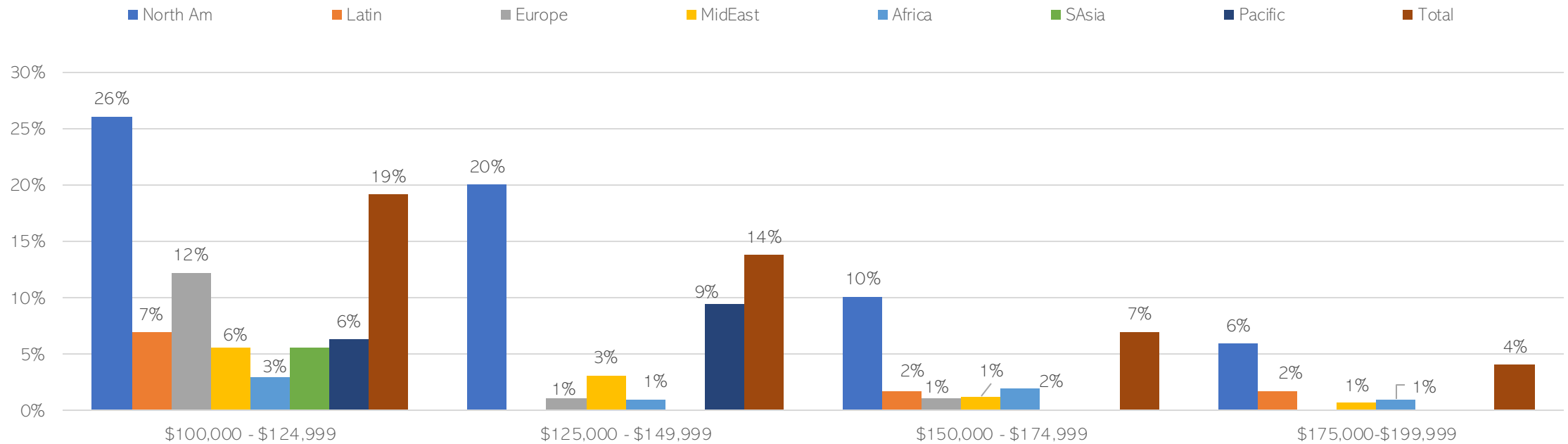


▲ Indicates a +/- change over 10% of the 2023 value

Detail: \$100K - \$200K Income

Please input your base salary (in \$USD) as of January 1, 2024.

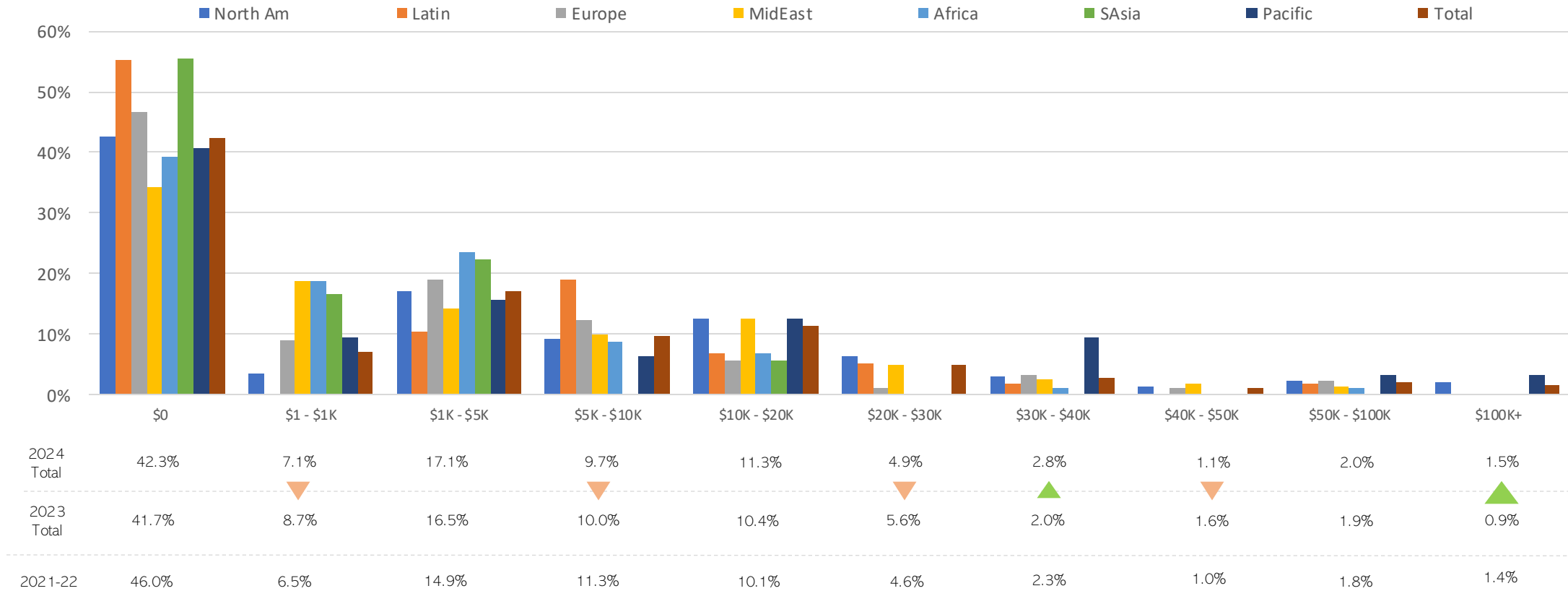
Responses show differences in compensation by region.



Bonus

Please indicate any bonus (in \$USD) you received in 2022.

As in 2023, 58% indicated receiving a bonus of some amount in 2024.

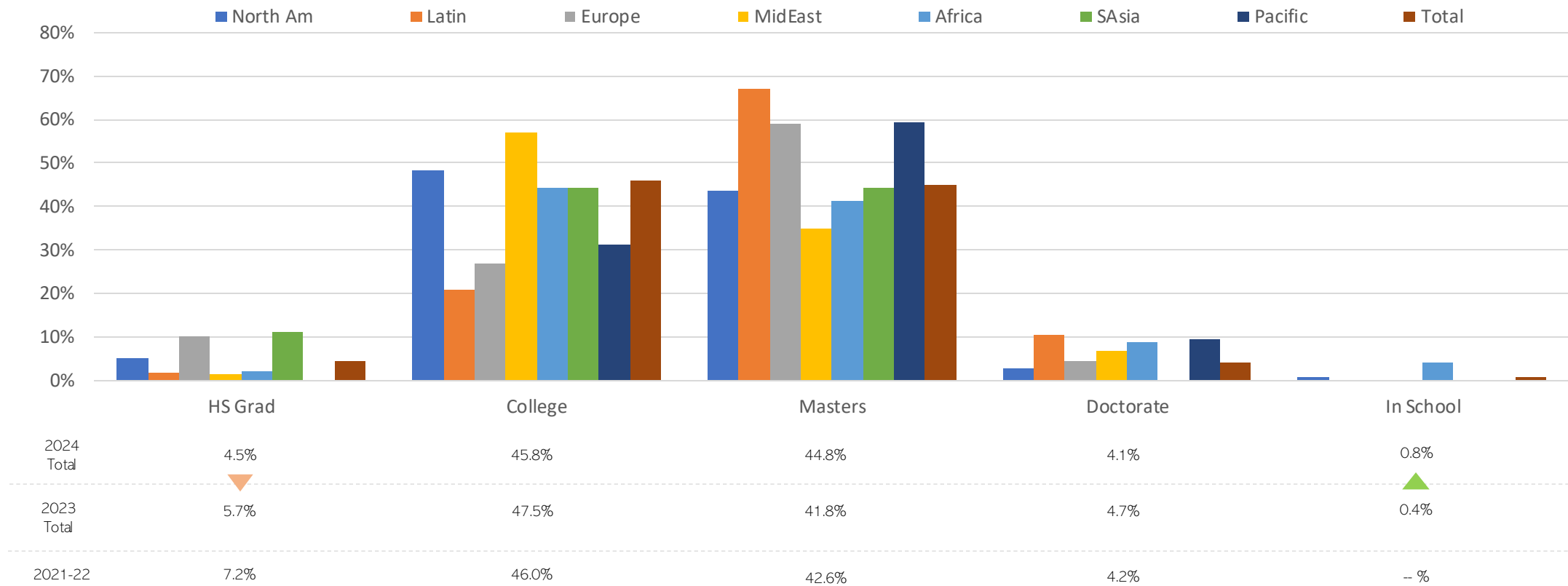


▲ Indicates a +/- change over 10% of the 2023 value

Education

What is your highest level of education achieved?

95% have university-level or higher education.

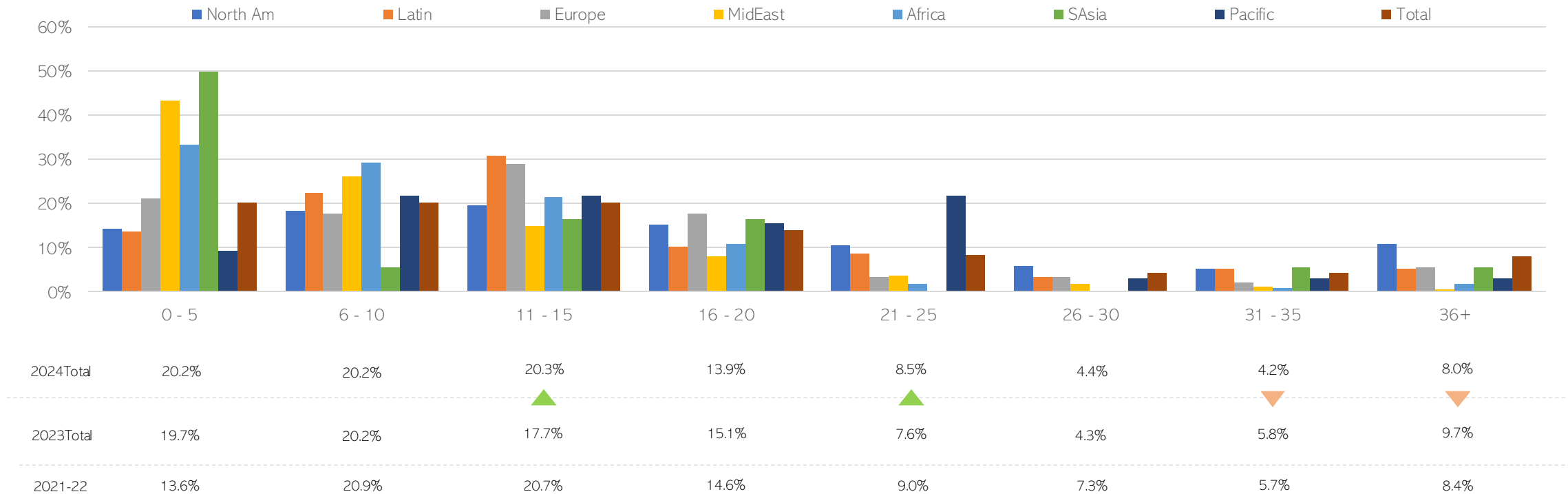


Indicates a +/- change over 10% of the 2023 value

Experience

How many years of energy efficiency experience do you have?

The responses in this survey represent a range of time in the industry, creating a balanced representation of opinions from industry professionals.

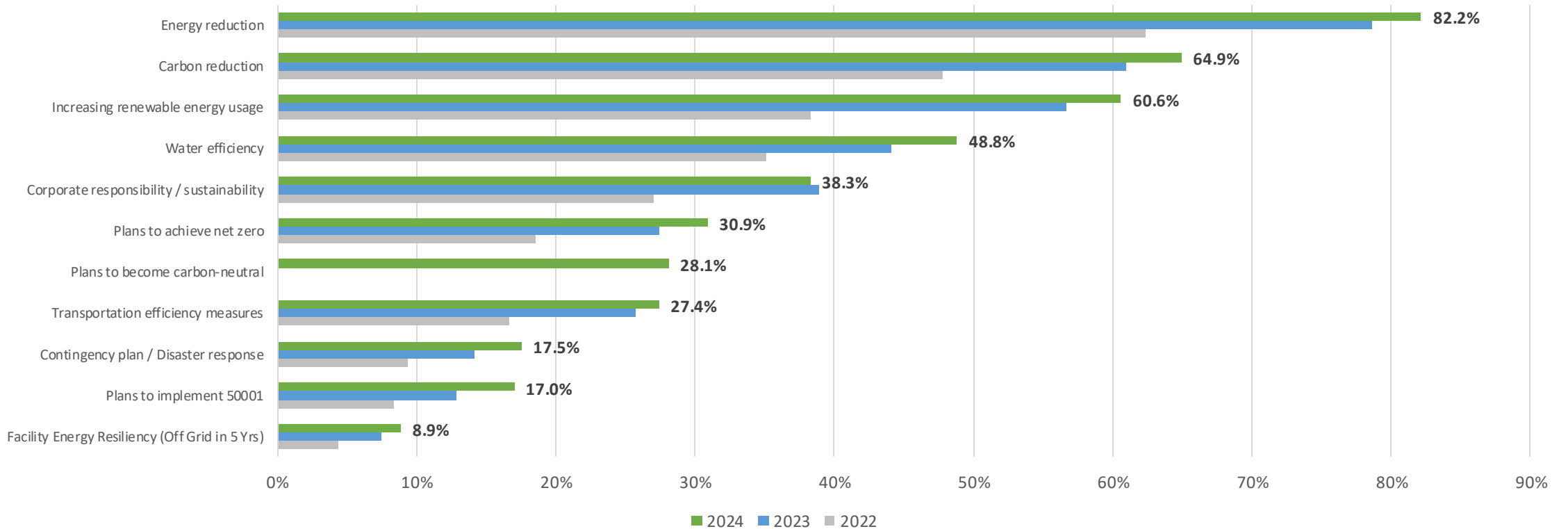


▲ Indicates a +/- change over 10% of the 2023 value

Trends in High Level Strategic Goals

Are any of the following measures being considered by your company next year? (Select all that apply.)

Energy reduction remains the top consideration. Water efficiency and contingency / disaster / future planning efforts scored higher than in 2023.



◆ Indicates a +/- change over 10% of the 2023 value

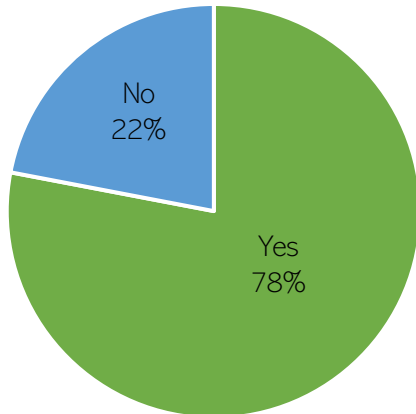
Decarbonization Agreement Statements

With the push for decarbonization, please share your opinion on each statement below.

78% of respondents in the study are energy efficiency decision makers.

While continuing to trend upward, agreement of key statements did not change significantly from 2023.

Do you make or influence your organization's energy efficiency decisions?

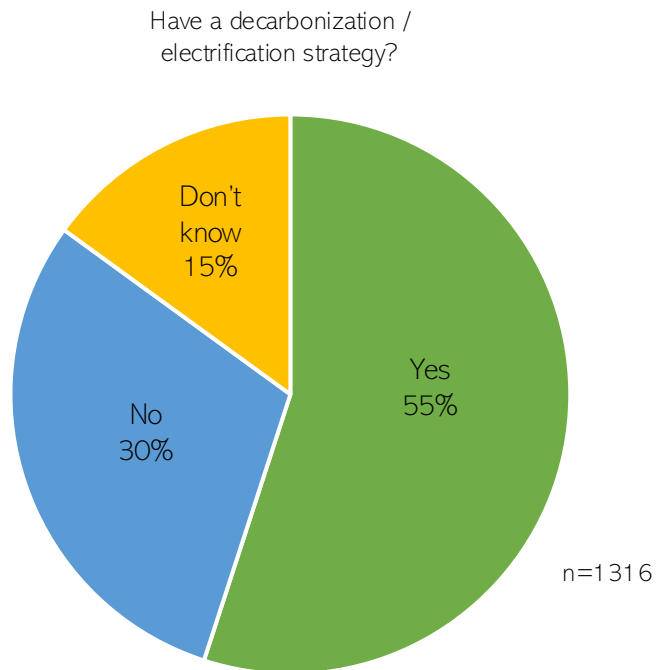


	My company and work are being driven by my decarbonization and net-zero goals.	I am dealing with grid capacity issues.	EV charging is part of my grid and decarbonization initiatives.
2024			
Agree	59.7%	43.2%	49.2%
Disagree	19.9%	25.2%	21.0%
N.A	20.4%	31.6%	29.8%
2023			
Agree	64.3%	40.2%	48.3%
Disagree	15.8%	25.9%	19.5%
N.A	19.9%	33.9%	32.2%
2021-22			
Agree	57.9%	33.2%	43.4%
Disagree	18.9%	30.5%	21.5%
N.A	23.2%	36.3%	35.1%

Decarbonization / Electrification Strategy

*Does your company / client have a decarbonization / electrification strategy?
What are the key strategies of your decarbonization / electrification strategy?*

55% of respondents say their company currently has a decarbonization / electrification strategy, with Solar as the top strategy.



Key strategies for decarbonization / electrification?

n=699

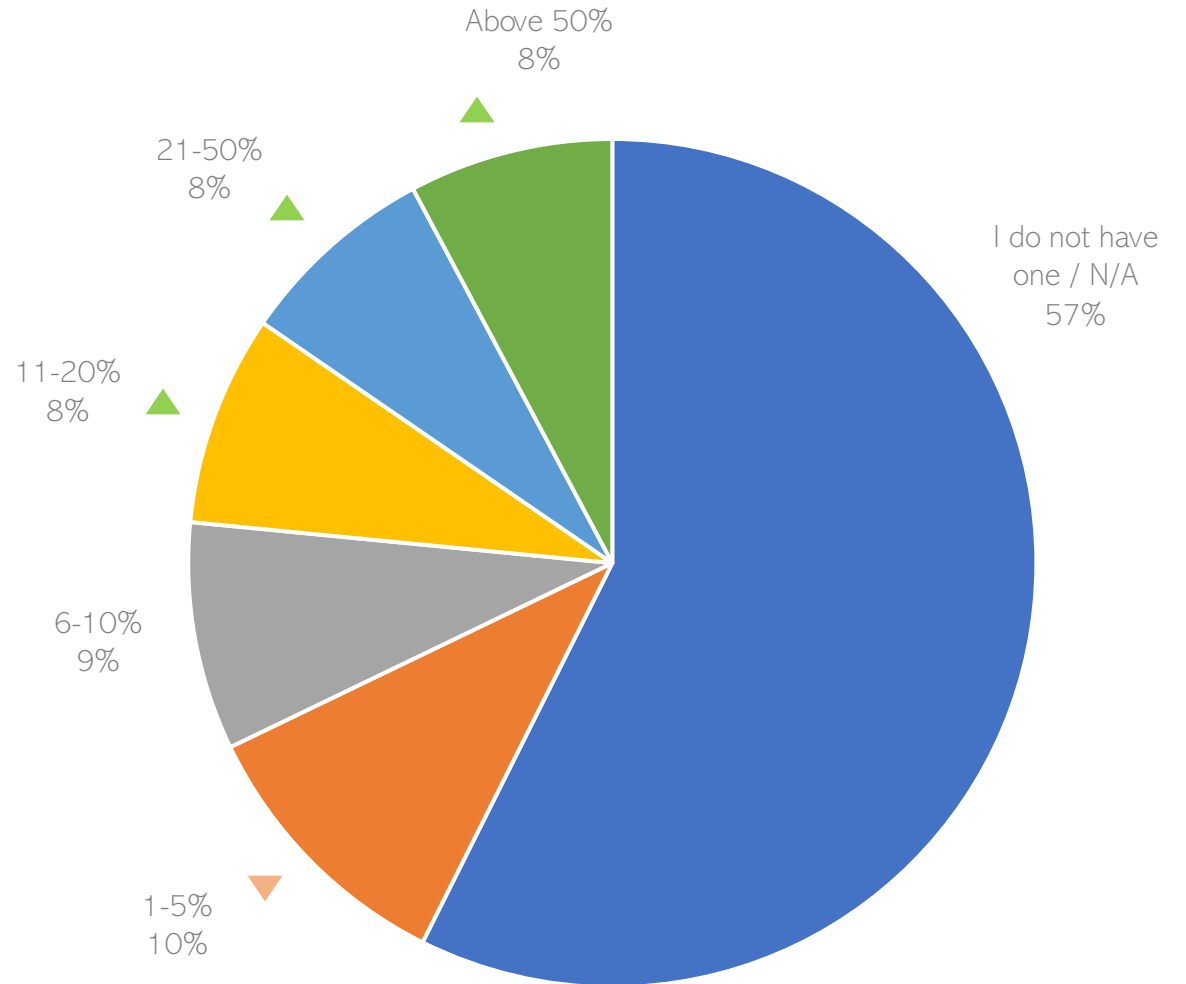
Solar	82.5%
Storage	42.9%
Other	30.6%
Wind	28.47%
Hydrogen	19.31%

2023 Energy Targets

Do you have a renewable energy target to meet in 2024?

Larger renewable energy targets are up from 2023.

Targets	2023	2021-22	2019
1 – 5%	12.3%	14%	16%
6 – 10%	8.4%	14.4%	11.7%
11 – 20%	5.7%	8.8%	7.3%
21 – 50%	5.5%	6.5%	6%
Above 50%	4.5%	5.5%	4%
Don't have one / N/A	63.7%	50.7%	55%

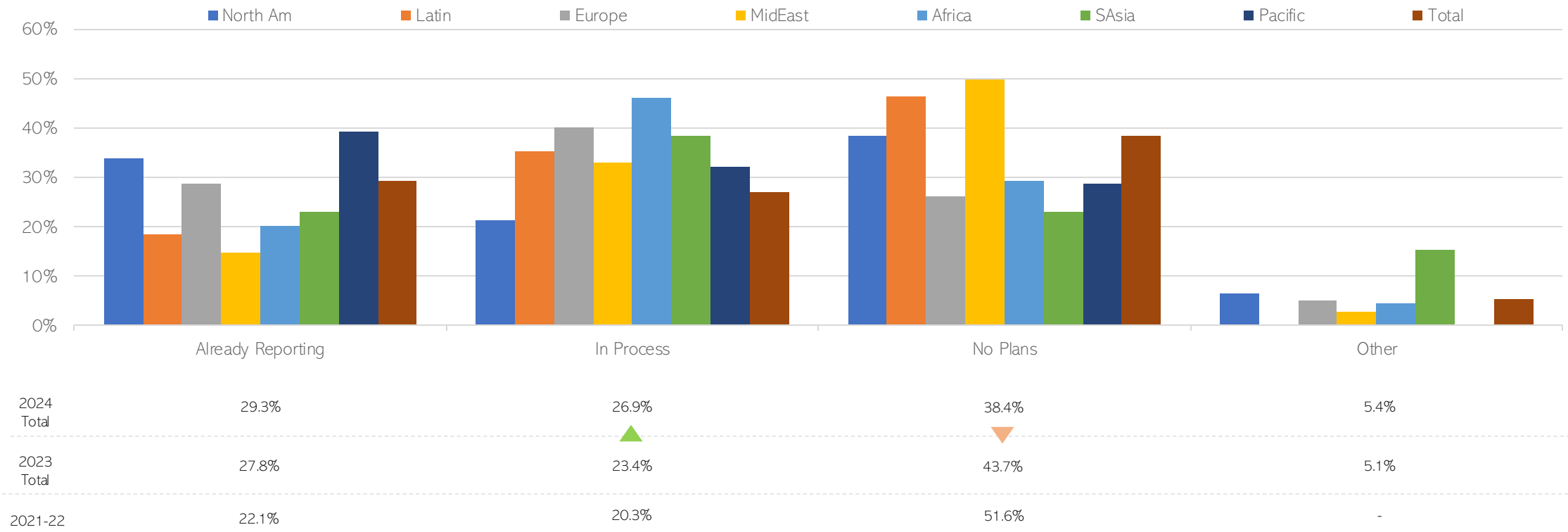


▲ Indicates a +/- change over 10% of the 2023 value

ESG Reporting

Does your company have a plan for ESG reporting?

Those who say they have 'No Plans' for Environmental, Social, and Governance (ESG) policies continued to decline in 2024, while those 'In Process' have increased.

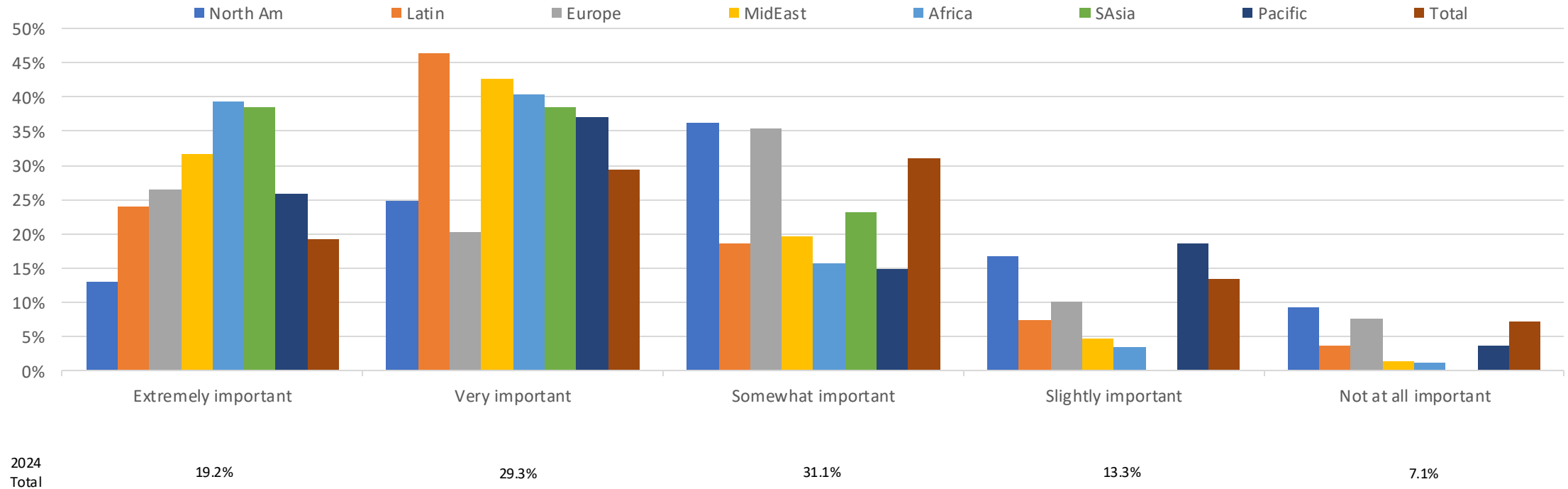


▲ Indicates a +/- change over 10% of the 2023 value

AI Perceptions

How do you rate the importance of implementing artificial intelligence in enhancing energy efficiency?

Nearly 50% of the Total audience feels AI implementation is 'Extremely' or 'Very' important in enhancing energy efficiency.

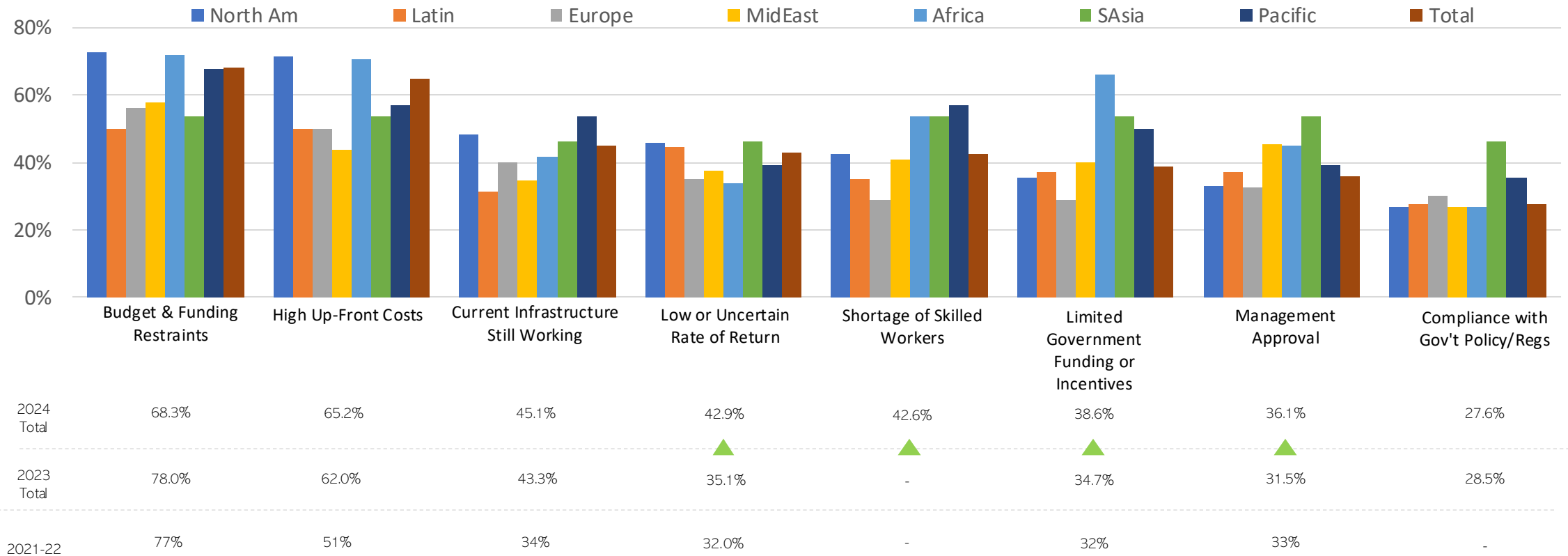


◆ Indicates a +/- change over 10% of the 2023 value

Challenges

What are the most significant challenges to increasing energy efficiency and sustainability? (Select all that apply.)

While 'Budget' is considered somewhat less of a challenge this year, other difficulties notably increased ('Low or Uncertain Rate of Return,' 'Shortage of Skilled Workers,' 'Limited Gov't Funding,' and 'Management Approval.')

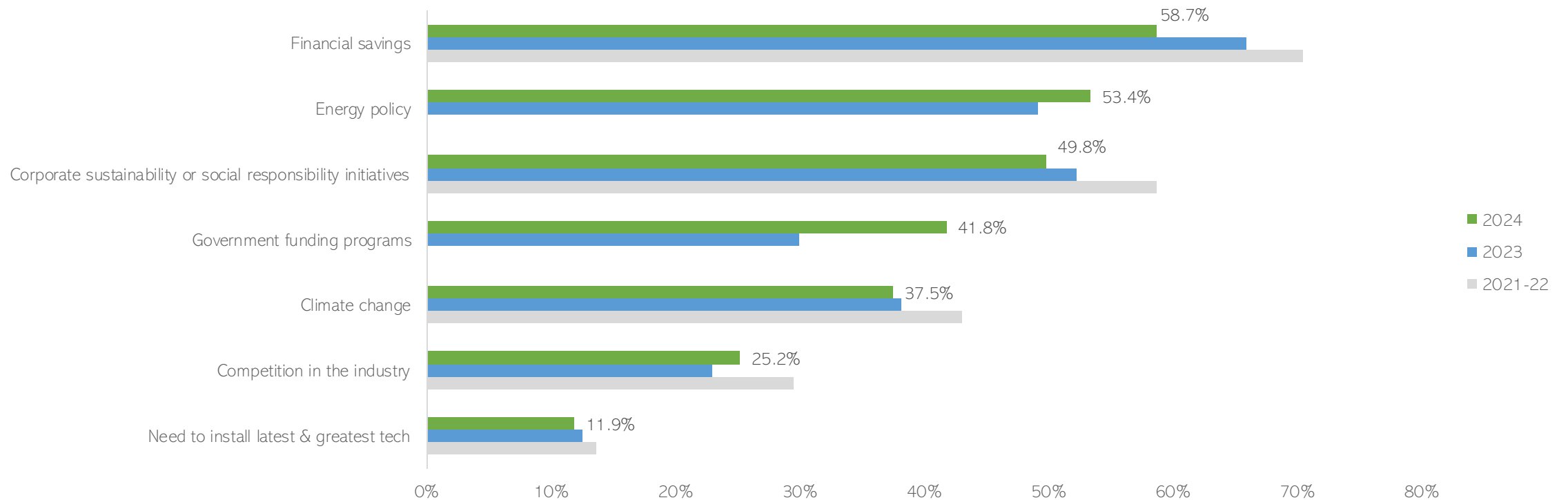


▲ Indicates a +/- change over 10% of the 2023 value

Factors Driving Change

What is driving your company's energy efficiency programs? (Select all that apply)

Despite a decrease from 2023, "Financial savings" remains the primary factor driving change. "Government funding programs" has increased from last year.

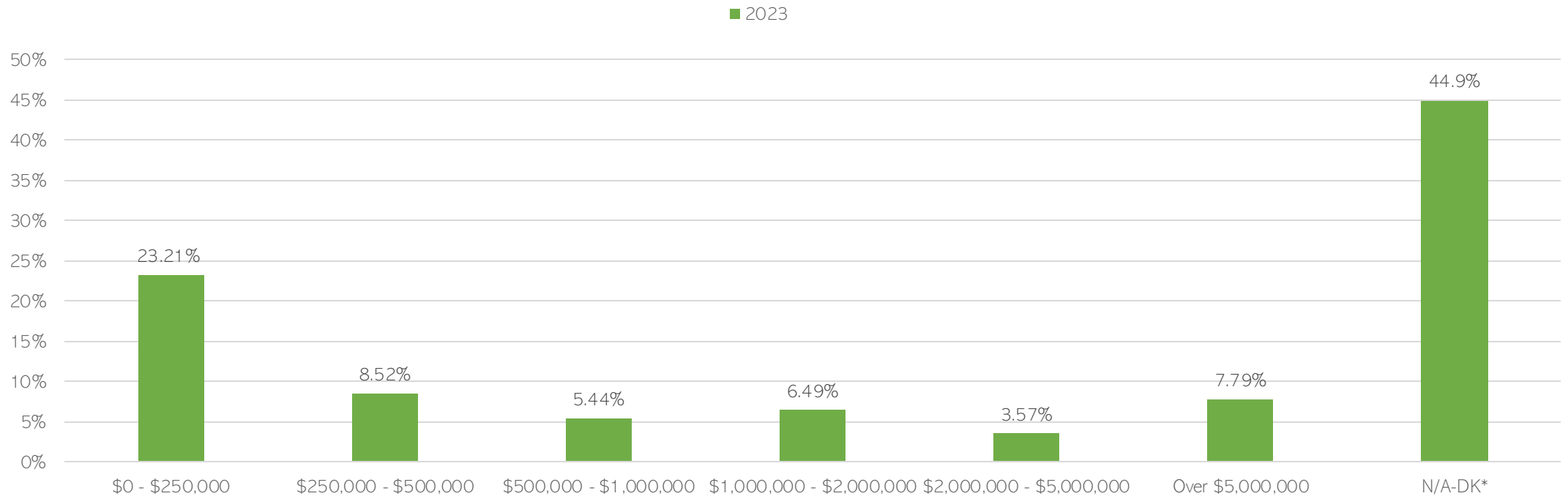


◆ Indicates a +/- change over 10% of the 2023 value

Efficiency & Sustainability Savings

How much money has your company saved as a result of its energy efficiency or sustainability programs in 2023?

23% reported energy savings of up to \$250K, but many (45%) were unaware of how much their company had saved because of efficiency programs in 2023.

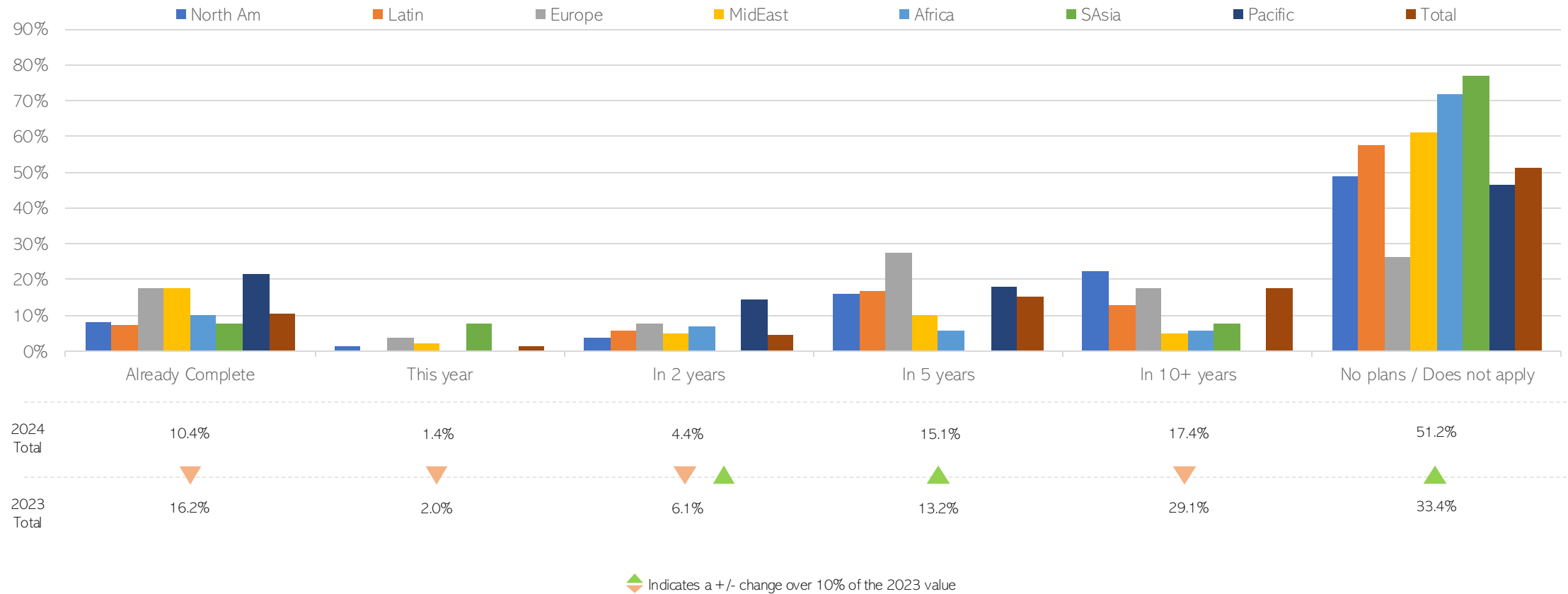


*AEE updated this question in 2024 to include the 'N/A-DK' response and will track using these categories in subsequent waves.

Planning the Change From Gas to Electric

When do you think your company will change over from gas to electric heating?

Just over half indicated that their company has no plans to make the change from gas to electric, up from 33% in 2023.

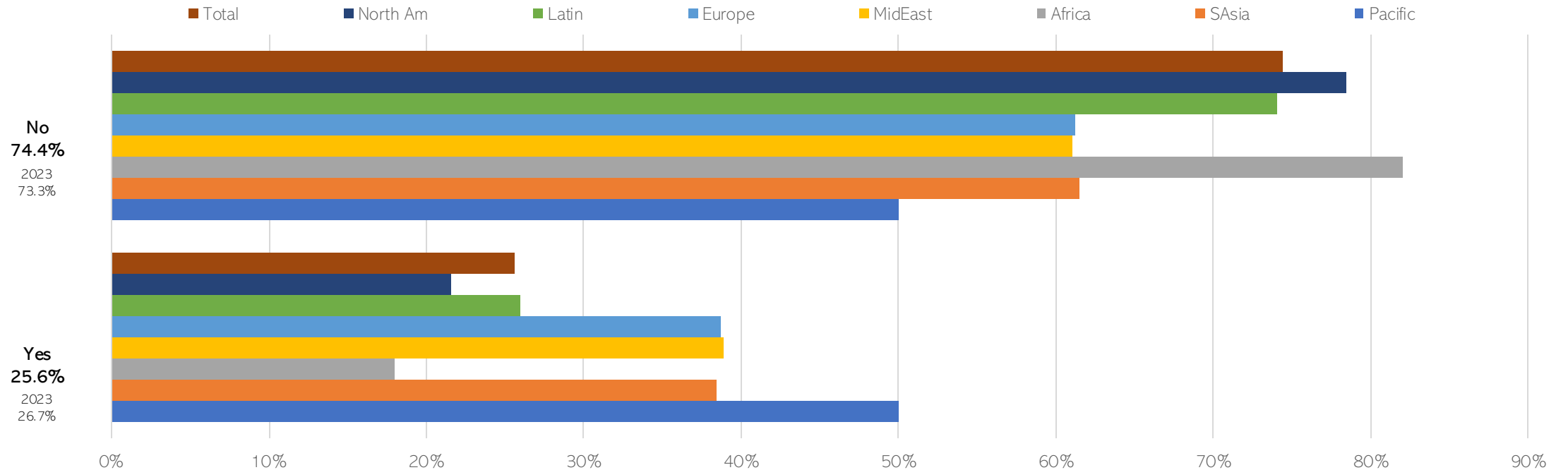


Indicates a +/- change over 10% of the 2023 value

Can Your Local Grid Handle the Switch?

Do you think your local electric grid can handle everyone switching from gas to electric heating, as well as from gasoline to electric cars, within the next 10 years?

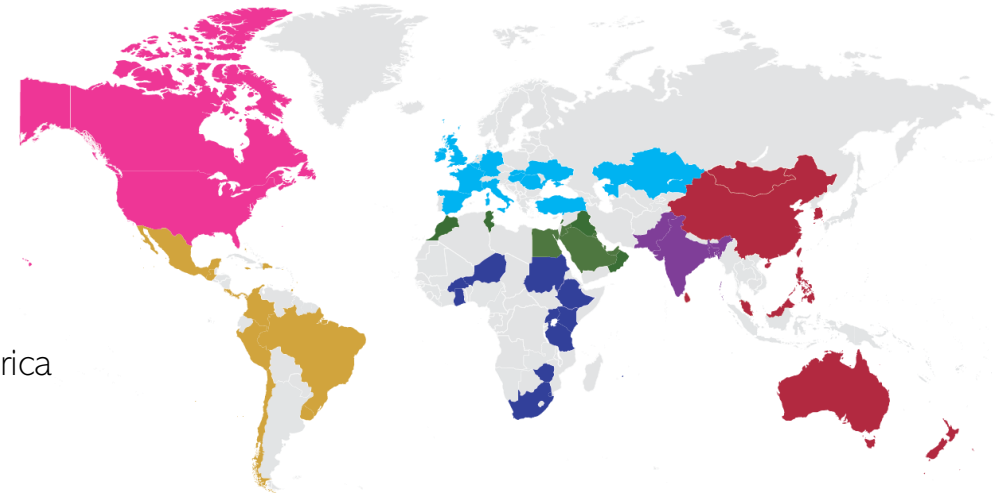
Nearly $\frac{3}{4}$ of the Total said they do not think their local grid will be ready for a full switch from gas to electric within 10 years.



Appendix | Country Data.

Australia	Germany	Maldives	South Africa
Bahamas	Ghana	Mauritius	South Korea
Bahrain	Guatemala	Mexico	Spain
Bangladesh	Hong Kong	Mongolia	Sri Lanka
Barbados	Hungary	Morocco	Sudan
Belgium	India	New Zealand	Taiwan
Brazil	Iraq	Nigeria	Tanzania
Burkina Faso	Ireland	Oman	Trinidad & Tobago
Canada	Italy	Pakistan	Tunisia
Chile	Jamaica	Palestine	Turkey
China	Jordan	Panama	Uganda
Colombia	Kazakhstan	Peru	Ukraine
Costa Rica	Kenya	Philippines	United Arab Emirates
Dominican Republic	Kuwait	Qatar	United Kingdom
Egypt	Lebanon	Romania	United States of America
Eswatini (Swaziland)	Luxembourg	Saudi Arabia	Uruguay
Ethiopia	Macau	Singapore	U.S. Virgin Islands
France	Malaysia	Slovakia	Zimbabwe

Responses from
72
countries





Produced and Published by Association of Energy Engineers – 2024
aeecenter.org