

# Monthly Municipal ESG Monitor

## December 2023

### Industry Overview

### December ESG issuance up 58% y/y; 2023 total up 18%

December all labeled muni ESG issuance totaled \$7.4bn, up 58% y/y. 2023 all labeled muni ESG issuance totaled \$52.8bn, up 18% versus 2022, marking a new peak. December ICMA-aligned muni ESG issuance totaled \$6.4bn, up 72% y/y. 2023 ICMA-aligned muni ESG issuance totaled \$43.0bn, up 17% y/y. In December, the average CUSIP size of all labeled bonds was \$12.8mn versus \$4.0mn for all muni bonds issued during the month. Of the total 2023 all labeled issuance, 55% had an ESG assurance provider or an external verifier. For the ICMA-aligned bonds issued, that number was 67%. By sector, Single-Family Housing issued the most ESG bonds in 2023.

*Note:* We display Bloomberg tagged muni ESG issuance data as “all labeled” and a subset aligned with certain International Capital Market Association (ICMA) recommendations. Bloomberg tags a bond issue as ESG if the net proceeds of the bonds are for green, social or sustainability purposes. That does not necessarily indicate that an issuer has self-designated its bonds as such. To be considered ICMA-aligned, the bonds also must be aligned with ICMA’s recommendations for project evaluation and selection, management of proceeds and ongoing reporting. We note that we update past data for any Bloomberg revisions.

### \$80mn outflow in 2023, first since 2018

Muni ESG fund monthly flows, which includes all reporting funds, totaled -\$7.8mn for December compared to -\$613mn for muni non-ESG funds. For 2023, monthly flows for muni ESG funds averaged -\$6.6mn. 2023 saw outflows of \$79.6mn for muni ESG funds and \$2.8bn for muni non-ESG funds. For December, muni ESG fund daily flows totaled -\$11.9mn and averaged -\$0.6mn during the month compared to \$0.02mn in November.

### The Muni Impact index returned 7.54% in 2023

December total returns for the Muni index (LMBITR) were 2.32% compared to 2.67% for the Muni Impact index (I36676US), per Bloomberg. 2023 total returns were strong at 6.58% and 7.54%, respectively. Across the sub-indices, December total returns were as follows: Green (I36677US) 2.60%; Social (I36678US) 3.01%; and Sustainable (I36679US) 2.60%. 2023 returns were Green 7.49%; Social 7.41%; and Sustainable 8.01%. We note that the Bloomberg indices include all labeled bonds.

### Natural disaster declarations down 11% in 2023

As of 26 December, 54.3% of the US was under abnormally dry conditions or worse, per the US Drought Monitor, improving from 55.8% as of 28 November 2023. Federal Emergency Management Agency disaster declaration data showed there were 991 natural disaster-related declarations in 2023, down 11% y/y from 1,114 incidents in 2022. The Electric Reliability Council of Texas’ peak electricity demand was 57.4 gigawatts in December, down from a record 85.6GW in August. In 2023, 2.6 million acres burned across the US from wildfires, down 65% on a y/y basis. Across the US, 7 states show more than 50% of net power generation via Renewables for YTD-23 through October.

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Timestamp: 19 January 2024 10:25AM EST

19 January 2024

Municipals  
United States

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# Muni ESG issuance

## Exhibit 1: Muni ESG issuance summary: all labeled bonds (\$mn)

\$7.4bn of labeled issuance in December, up 58% y/y

	Dec-23	Dec-22	y/y Δ	2023	2022	y/y Δ
<b>Total</b>	<b>7,414</b>	<b>4,700</b>	<b>58%</b>	<b>52,759</b>	<b>44,618</b>	<b>18%</b>
Tax-exempt	5,036	4,125	22%	42,608	32,340	32%
Taxable	360	356	1%	6,155	8,112	-24%
AMT	2,000	201	897%	3,860	3,965	-3%
Bank qualified	17	18	-5%	136	201	-33%
Green	5,467	1,468	272%	27,818	20,230	38%
% of total	74%	31%		53%	45%	
Social	1,315	1,804	-27%	16,086	18,300	-12%
% of total	18%	38%		30%	41%	
Sustainability	632	1,427	-56%	8,854	6,088	45%
% of total	9%	30%		17%	14%	

**Note:** Long-term bonds only. Data as of 31 December 2023.

**Source:** Bloomberg

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## Exhibit 2: Muni ESG issuance summary: ICMA-aligned bonds (\$mn)

\$6.4bn of ICMA-aligned issuance in December, up 72% y/y

	Dec-23	Dec-22	y/y Δ	2023	2022	y/y Δ
<b>Total</b>	<b>6,363</b>	<b>3,691</b>	<b>72%</b>	<b>43,040</b>	<b>36,927</b>	<b>17%</b>
Tax-exempt	4,021	3,296	22%	34,367	26,824	28%
Taxable	336	356	-6%	5,206	7,735	-33%
AMT	2,000	38	5098%	3,460	2,351	47%
Bank qualified	6	-		7	18	-60%
Green	4,491	768	485%	18,773	13,014	44%
% of total	71%	21%		44%	35%	
Social	1,315	1,496	-12%	15,847	17,934	-12%
% of total	21%	41%		37%	49%	
Sustainability	556	1,427	-61%	8,421	5,979	41%
% of total	9%	39%		20%	16%	

**Note:** Long-term bonds only. Data as of 31 December 2023.

**Source:** Bloomberg

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## Exhibit 3: Muni ESG issuance y/y: all labeled bonds (\$mn)

2023 labeled Sustainability bond issuance up 45% y/y



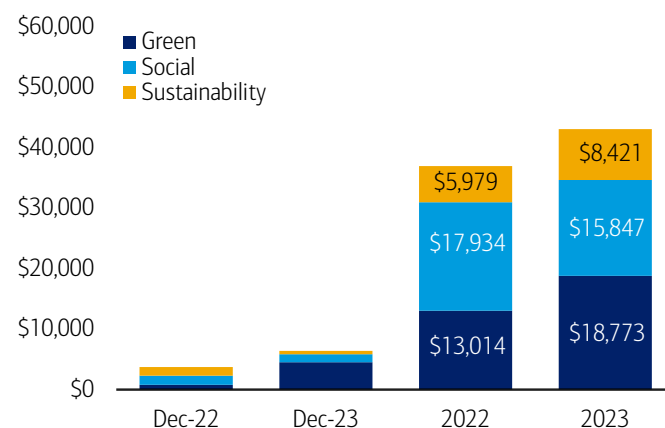
**Note:** Long-term bonds only. Data as of 31 December 2023.

**Source:** Bloomberg

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## Exhibit 4: Muni ESG issuance y/y: ICMA-aligned bonds (\$mn)

2023 ICMA-aligned Social bond issuance down 12% y/y



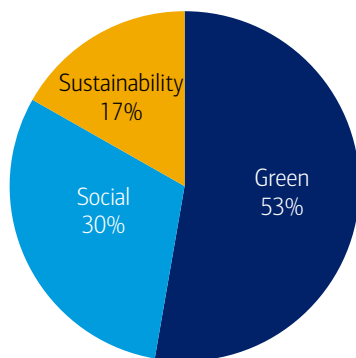
**Note:** Long-term bonds only. Data as of 31 December 2023.

**Source:** Bloomberg

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## Exhibit 5: 2023 muni ESG issuance by type: all labeled bonds

Green bonds accounted for 53% of 2023 labeled issuance



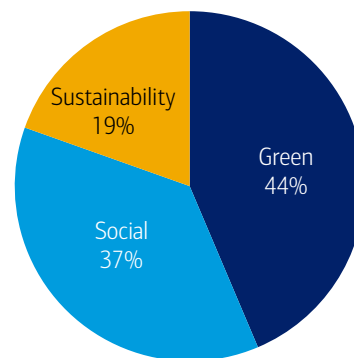
**Note:** Long-term bonds only. Data as of 31 December 2023.

**Source:** Bloomberg

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## Exhibit 6: 2023 muni ESG issuance by type: ICMA-aligned bonds

Social bonds accounted for 37% of 2023 ICMA-aligned issuance



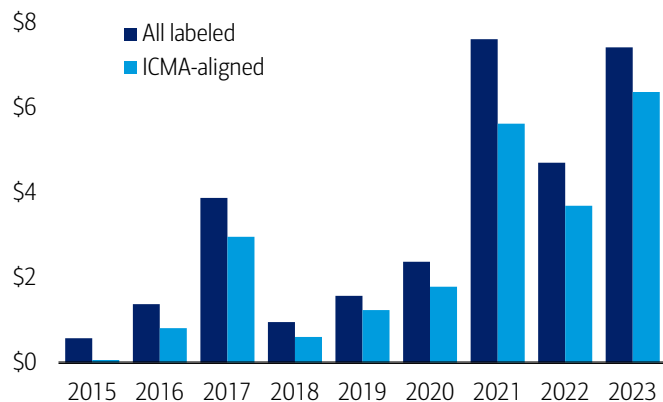
**Note:** Long-term bonds only. Data as of 31 December 2023.

**Source:** Bloomberg

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**Exhibit 7: December issuance (\$bn)**

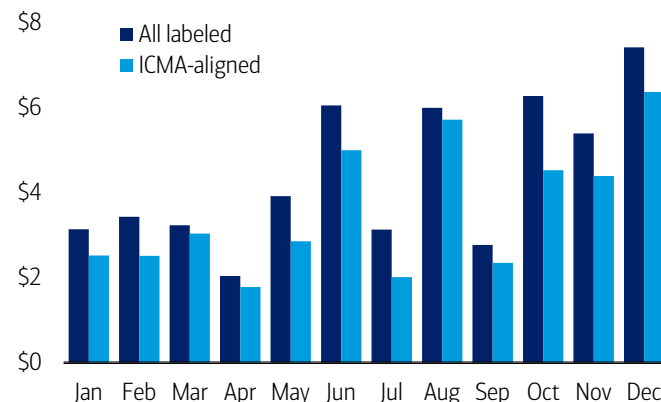
2023 saw the second-largest December issuance

**Note:** Long-term bonds only. Data as of 31 December 2023.**Source:** Bloomberg

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**Exhibit 8: 2023 monthly muni ESG issuance (\$bn)**

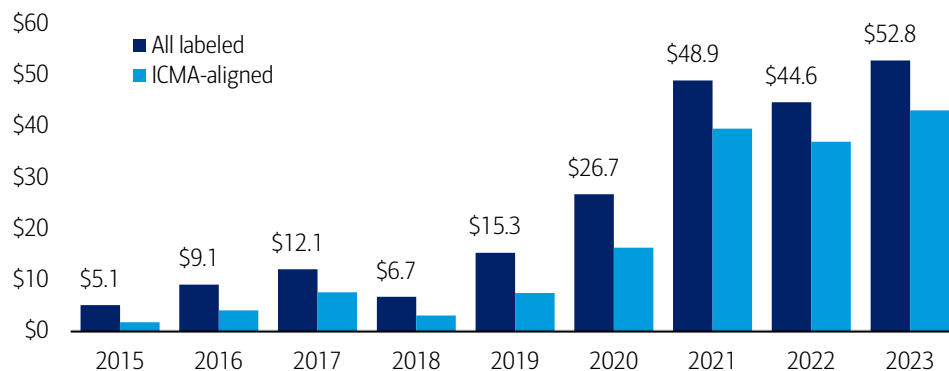
December was the largest issuance month in 2023

**Note:** Long-term bonds only. Data as of 31 December 2023.**Source:** Bloomberg

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**Exhibit 9: Annual muni ESG issuance (\$bn)**

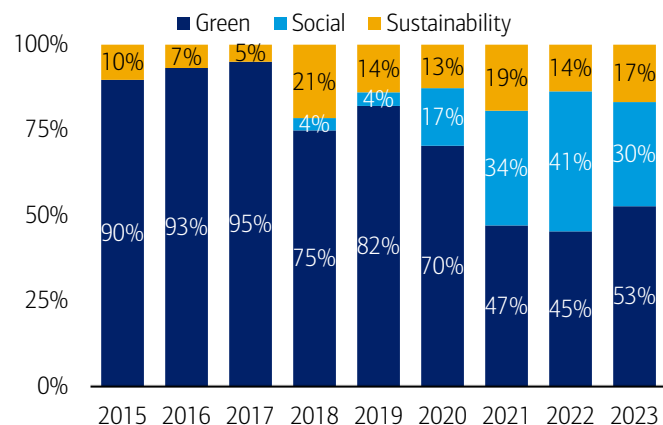
New peak of \$53bn reached in 2023

**Note:** Long-term bonds only. Data as of 31 December 2023.**Source:** Bloomberg

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**Exhibit 10: Annual muni ESG issuance by type: all labeled bonds**

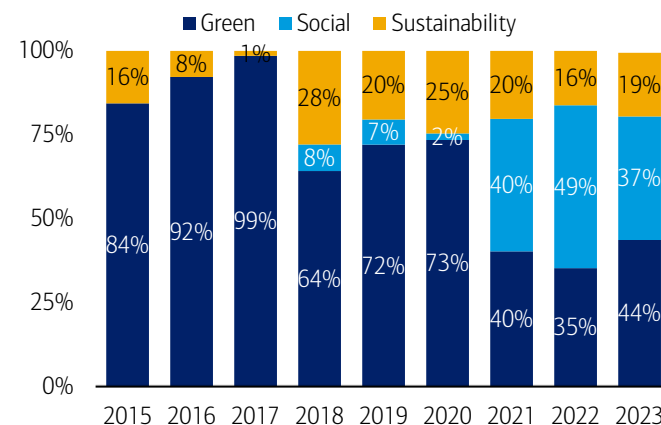
The share of Green bond issuance was up 8ppt y/y

**Note:** Long-term bonds only. Data as of 31 December 2023.**Source:** Bloomberg

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**Exhibit 11: Annual muni ESG issuance by type: ICMA-aligned bonds**

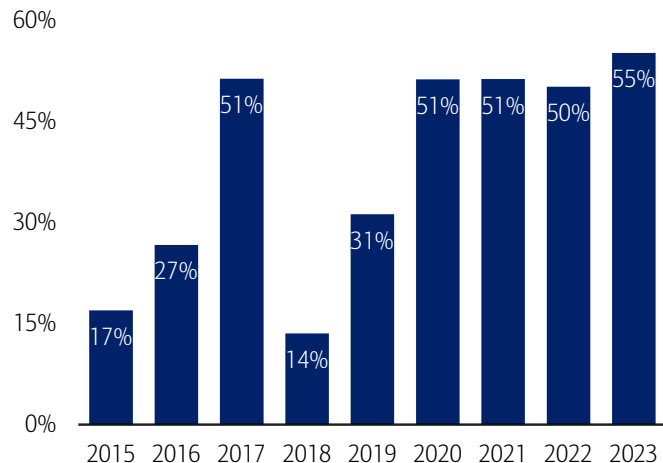
The share of Social bond issuance was down 12ppt y/y

**Note:** Long-term bonds only. Data as of 31 December 2023.**Source:** Bloomberg

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**Exhibit 12: Issuance w/ ESG assurance provider: all labeled bonds**

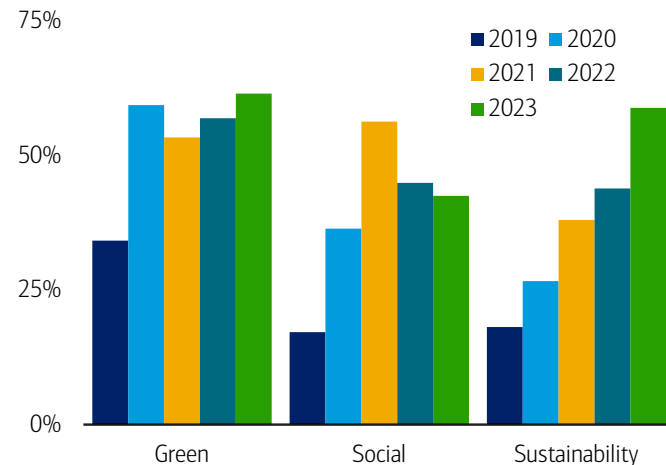
55% of YTD-23 muni ESG issuance verified by an outside party

**Note:** Long-term bonds only. Data as of 31 December 2023.**Source:** Bloomberg

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**Exhibit 13: Issuance w/ ESG assurance provider: all labeled bonds**

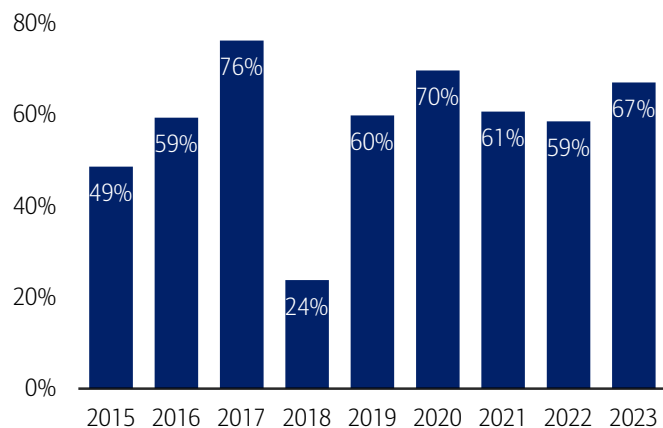
Sustainability bonds with an outside verifier has steadily grown

**Note:** Long-term bonds only. Data as of 31 December 2023.**Source:** Bloomberg

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**Exhibit 14: Issuance w/ ESG assurance provider: ICMA-aligned bonds**

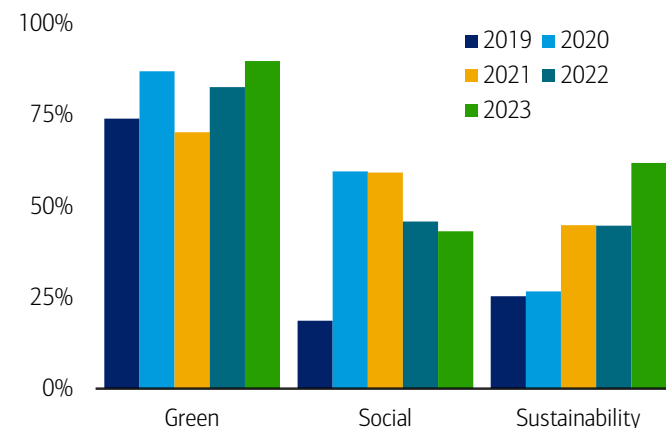
67% of YTD-23 ICMA-aligned issuance verified by an outside party

**Note:** Long-term bonds only. Data as of 31 December 2023.**Source:** Bloomberg

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**Exhibit 15: Issuance w/ ESG assurance provider: ICMA-aligned bonds**

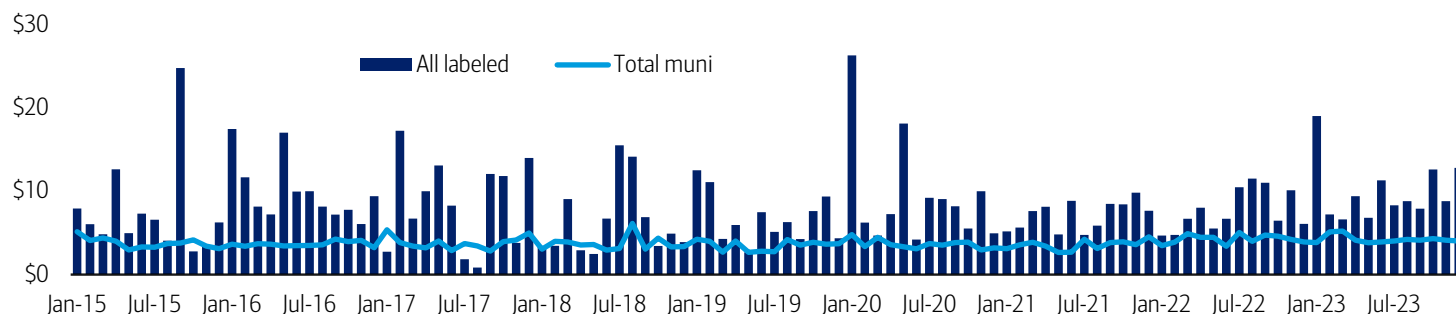
The share of Social bonds with an external verifier has been trending down

**Note:** Long-term bonds only. Data as of 31 December 2023.**Source:** Bloomberg

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**Exhibit 16: Average cusip size of all labeled versus total muni bonds, monthly (\$mn)**

In December, the average cusip size of all labeled bonds was \$12.8mn versus \$4.0mn for total muni bonds

**Note:** Long-term bonds only. Data as of 31 December 2023.**Source:** Bloomberg

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**Exhibit 17: Top borrowers 2023: all labeled (\$mn)**

CA Community Choice Financing Auth has the top spot at 11.3%

Borrower name	Issuance	% of total
California Community Choice Financing Auth	\$5,942	11.3%
NY MTA Payroll Mobility Tax Revenue	2,495	4.7%
NY JFK Airport New Terminal One Project	2,000	3.8%
New York City Housing Development Corp	1,324	2.5%
Illinois Housing Development Authority	1,289	2.4%
WMATA Dedicated Revenue	1,180	2.2%
Pennsylvania Housing Finance Agency	1,157	2.2%
Los Angeles Unified School District	1,150	2.2%
New York State Housing Finance Agency	1,070	2.0%
TX State Water Implementation Rev Fund	991	1.9%

**Note:** Long-term bonds only. WMATA = Washington Metropolitan Area Transit Authority. Data as of 31 December 2023.

**Source:** Bloomberg

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**Exhibit 18: Top borrowers 2023: ICMA-aligned (\$mn)**

Top-10 borrowers account for 42.3% of issuance

Borrower name	Issuance	% of total
California Community Choice Financing Auth	\$5,917	13.7%
NY MTA Payroll Mobility Tax Revenue	2,495	5.8%
NY JFK Airport New Terminal One Project	2,000	4.6%
Illinois Housing Development Authority	1,289	3.0%
WMATA Dedicated Revenue	1,180	2.7%
Pennsylvania Housing Finance Agency	1,157	2.7%
Los Angeles Unified School District	1,150	2.7%
New York City Housing Development Corp	1,149	2.7%
New York State Housing Finance Agency	994	2.3%
Maryland Community Development Admin	868	2.0%

**Note:** Long-term bonds only. WMATA = Washington Metropolitan Area Transit Authority. Data as of 31 December 2023.

**Source:** Bloomberg

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**Exhibit 19: Top borrowers since 2015: all labeled (\$mn)**

NYC Housing Development Corp has top spot at 5.3%

Borrower name	Issuance	% of total
New York City Housing Development Corp	\$11,762	5.3%
Metropolitan Transportation Authority	9,203	4.2%
California Community Choice Financing Auth	8,709	3.9%
New York State Housing Finance Agency	4,946	2.2%
New York State Revolving Fund	4,572	2.1%
NY MTA Payroll Mobility Tax Revenue	3,944	1.8%
OWDA Water Pollution Control Loan Fund	3,313	1.5%
Freddie Mac Multifamily ML Certificates	3,246	1.5%
SFPUC Water Revenue	2,718	1.2%
Pennsylvania Housing Finance Agency	2,543	1.1%

**Note:** Long-term bonds only. OWDA = Ohio Water Development Authority, SFPUC = San Francisco City & County Public Utilities Commission. Data as of 31 December 2023.

**Source:** Bloomberg

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**Exhibit 20: Top borrowers since 2015: ICMA-aligned (\$mn)**

Top-10 borrowers account for 29.8% of issuance

Borrower name	Issuance	% of total
New York City Housing Development Corp	\$9,310	5.8%
Metropolitan Transportation Authority	9,203	5.8%
California Community Choice Financing Auth	8,684	5.4%
New York State Housing Finance Agency	4,870	3.0%
NY MTA Payroll Mobility Tax Revenue	3,713	2.3%
Pennsylvania Housing Finance Agency	2,543	1.6%
Freddie Mac Multifamily ML Certificates	2,398	1.5%
Massachusetts Housing Finance Agency	2,290	1.4%
MA COVID-19 Recovery Assessment	2,287	1.4%
Illinois Housing Development Authority	2,268	1.4%

**Note:** Long-term bonds only. Data as of 31 December 2023.

**Source:** Bloomberg

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**Exhibit 21: Top issuance by sector 2023: all labeled (\$mn)**

Top-5 sectors account for 71.0% of issuance

Borrower name	Issuance	% of total
Single-Family Housing	\$11,688	22.2%
Water and Sewer	9,832	18.6%
Multi-Family Housing	6,536	12.4%
Gas Forward	6,090	11.5%
Airports	3,294	6.2%
Miscellaneous Tax	2,495	4.7%
Appropriation	2,316	4.4%
School District	1,690	3.2%
Electricity and Public Power	1,102	2.1%
Income Tax Financing	824	1.6%

**Note:** Long-term bonds only. Data as of 31 December 2023.

**Source:** Bloomberg

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**Exhibit 22: Top issuance by sector 2023: ICMA-aligned (\$mn)**

Single-Family Housing bonds account for 27.1% of issuance

Borrower name	Issuance	% of total
Single-Family Housing	\$11,648	27.1%
Multi-Family Housing	6,049	14.1%
Gas Forward	5,917	13.7%
Water and Sewer	3,645	8.5%
Airports	3,294	7.7%
Miscellaneous Tax	2,495	5.8%
Appropriation	2,125	4.9%
School District	1,594	3.7%
Income Tax Financing	824	1.9%
Local Authority	700	1.6%

**Note:** Long-term bonds only. Data as of 31 December 2023.

**Source:** Bloomberg

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**Exhibit 23: Top issuance by sector since 2015: all labeled (\$mn)**

Water and Sewer bonds account for 18.3% of issuance

Borrower name	Issuance	% of total
Water and Sewer	\$40,519	18.3%
Multi-Family Housing	35,755	16.2%
Single-Family Housing	28,476	12.9%
Farebox (Mass and Rapid Transit)	11,330	5.1%
Appropriation	9,573	4.3%
Miscellaneous Tax	9,293	4.2%
Gas Forward	8,856	4.0%
Bond Bank	7,898	3.6%
Sales Tax	6,838	3.1%
Economic and Industrial Development	6,299	2.8%

**Note:** Long-term bonds only. Data as of 31 December 2023.**Source:** Bloomberg

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**Exhibit 24: Top issuance by sector since 2015: ICMA-aligned (\$mn)**

Multi-Family Housing bonds account for 19.9% of issuance

Borrower name	Issuance	% of total
Multi-Family Housing	\$31,761	19.9%
Single-Family Housing	28,436	17.8%
Water and Sewer	15,301	9.6%
Farebox (Mass and Rapid Transit)	9,610	6.0%
Gas Forward	8,683	5.4%
Miscellaneous Tax	8,158	5.1%
Appropriation	6,222	3.9%
Sales Tax	5,604	3.5%
Local Authority	5,481	3.4%
Airports	4,418	2.8%

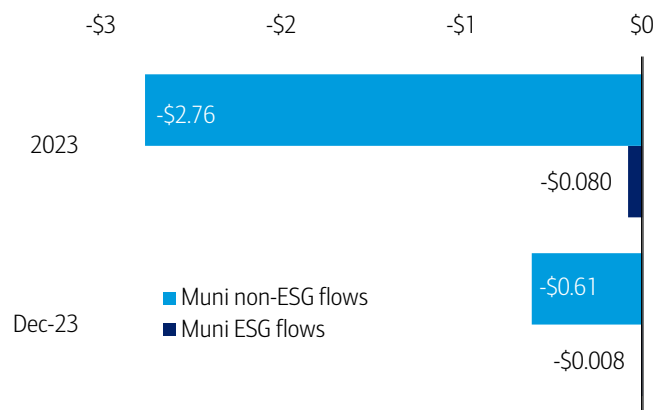
**Note:** Long-term bonds only. Data as of 31 December 2023.**Source:** Bloomberg

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## Muni ESG fund flows

**Exhibit 25: Muni ESG vs. Muni non-ESG fund flows (\$bn)**

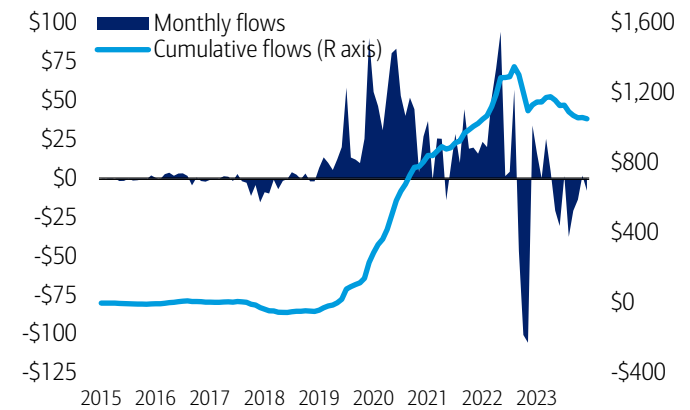
Outflows for both muni ESG and non-ESG funds in December and 2023

**Note:** Includes funds that report daily, weekly, and monthly. Data as of 31 December 2023.**Source:** EPFR Global

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**Exhibit 26: Muni ESG monthly fund flows (\$mn)**

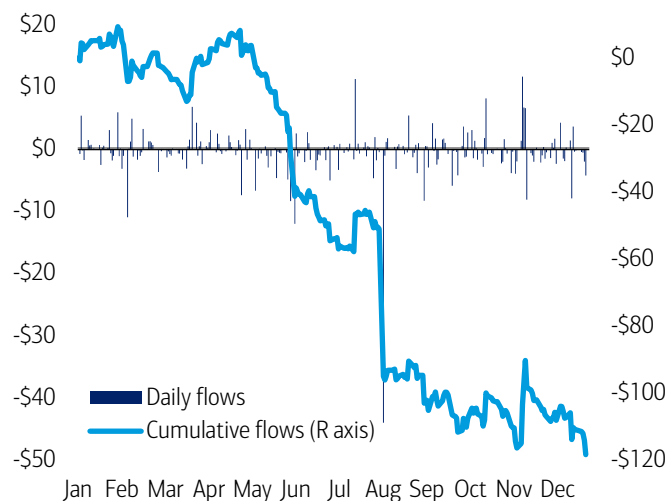
\$7.8mn of outflows for December

**Note:** Includes funds that report daily, weekly, and monthly. Data as of 31 December 2023.**Source:** EPFR Global

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**Exhibit 27: Muni ESG daily fund flows 2023 (\$mn)**

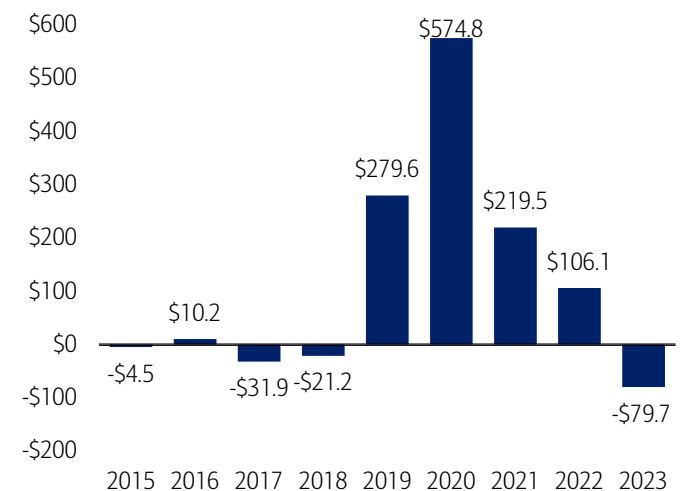
Muni ESG daily fund flows totaled -\$11.9mn in December

**Note:** Includes funds that report daily. Data as of 31 December 2023.**Source:** EPFR Global

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**Exhibit 28: Annual muni ESG flows (\$mn)**

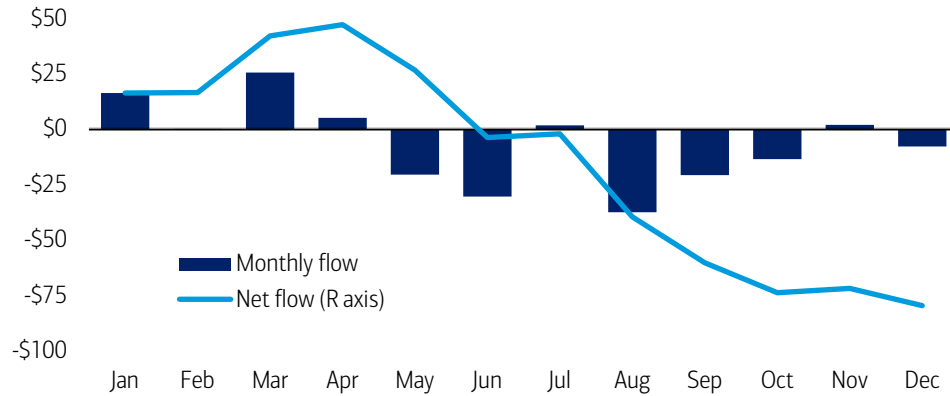
\$80mn outflow in 2023, first since 2018

**Note:** Includes funds that report daily, weekly, and monthly. Data as of 31 December 2023.**Source:** EPFR Global

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**Exhibit 29: 2023 monthly and net flow (\$mn)**

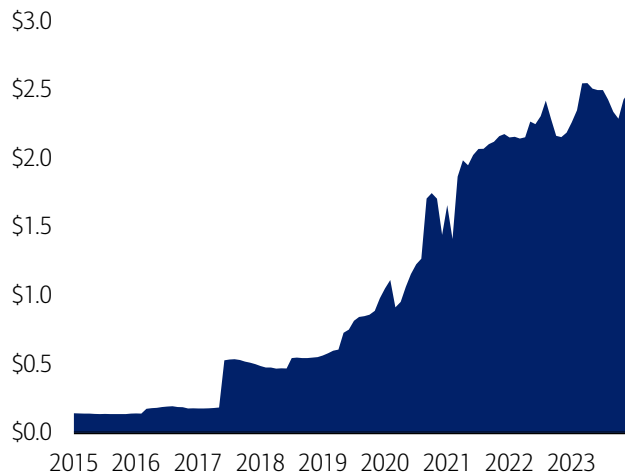
Net outflow began in June

**Note:** Includes funds that report daily, weekly, and monthly. Data as of 31 December 2023.**Source:** EPFR Global

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**Exhibit 30: AUM in muni ESG funds (\$bn)**

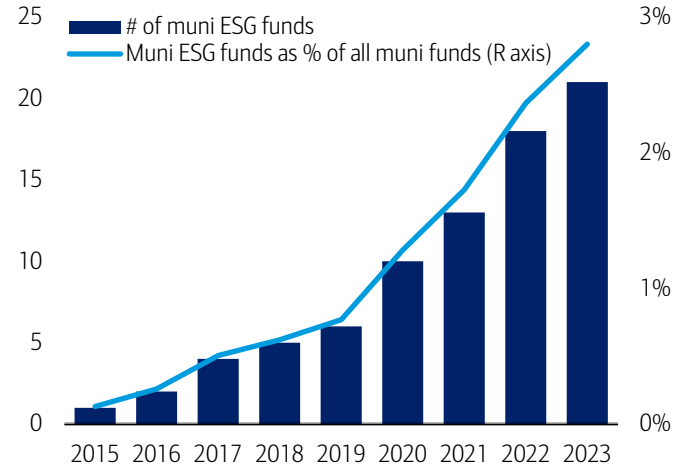
\$2.5bn of AUM in muni ESG funds as of December 2023

**Note:** Includes funds that report daily, weekly, and monthly. Data as of 31 December 2023.**Source:** EPFR Global

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**Exhibit 31: Count of muni ESG funds**

21 muni ESG funds at the end of 2023, up from just one in 2015

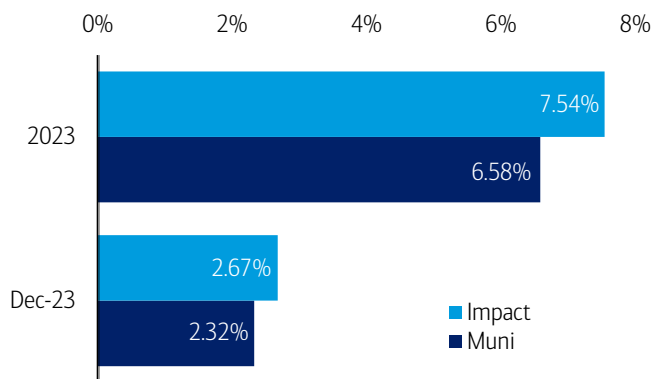
**Note:** Includes funds that report daily, weekly, and monthly. Data as of 31 December 2023.**Source:** EPFR Global

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# Muni ESG returns

## Exhibit 32: Muni index vs. Muni Impact index, total returns (%)

The Muni Impact index returned 2.67% in December and 7.54% for 2023



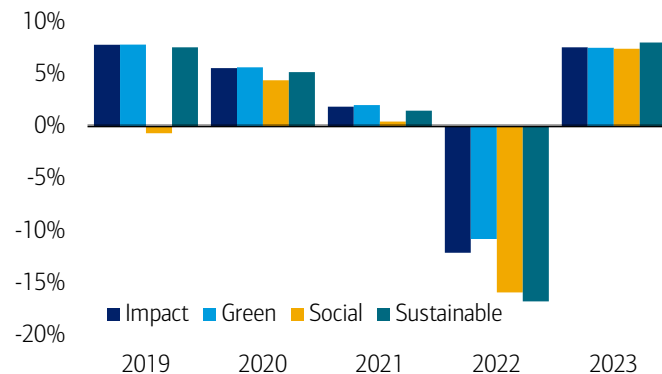
Note: Data as of 29 December 2023.

Source: Bloomberg

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## Exhibit 33: Muni Impact index vs. sub-indices, total returns (%)

The Sustainable index had the best 2023 return at 8.01%



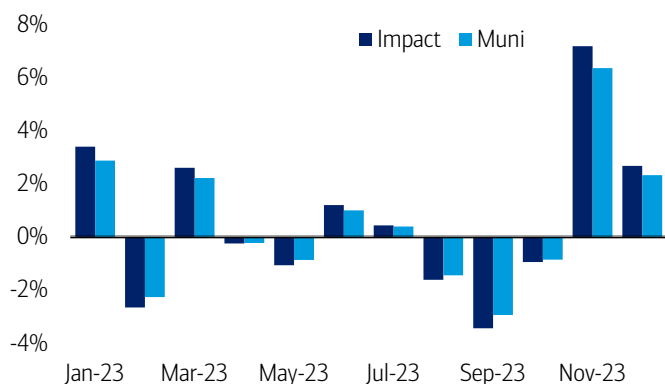
Note: Data as of 29 December 2023.

Source: Bloomberg

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## Exhibit 34: Monthly total returns, Muni vs. Muni Impact (%)

Strong monthly returns to end the year



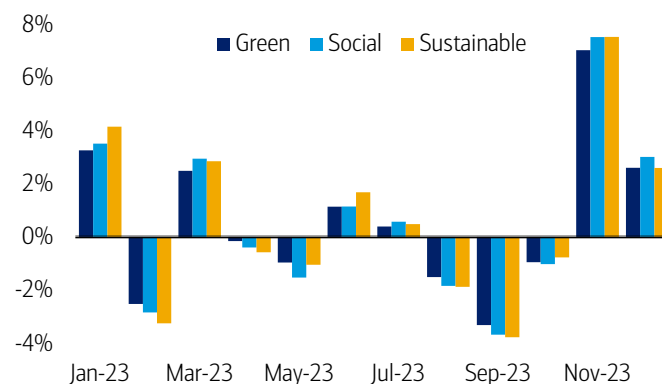
Note: Data as of 29 December 2023.

Source: Bloomberg

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## Exhibit 35: Monthly total returns, Muni Impact sub-indices (%)

The Green index tends to be the least volatile



Note: Data as of 29 December 2023.

Source: Bloomberg

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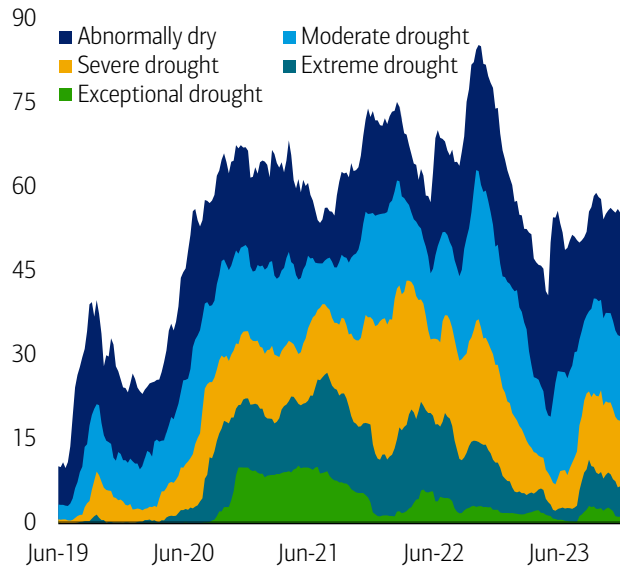


# Other muni ESG related data

## US drought monitor

### Exhibit 36: US drought conditions (% by area)

54.3% of the US is under abnormally dry conditions or worse



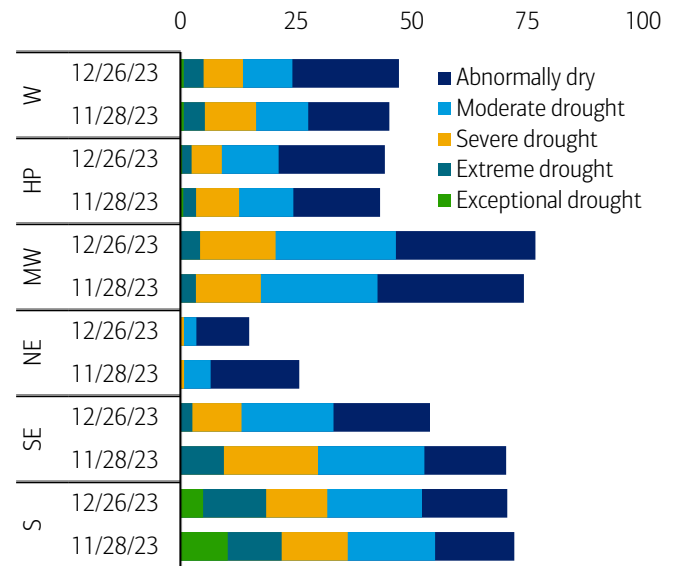
Note: Data as of 26 December 2023.

Source: US Drought Monitor

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### Exhibit 37: Regional drought conditions (% by area)

Drought conditions worsened out West in December



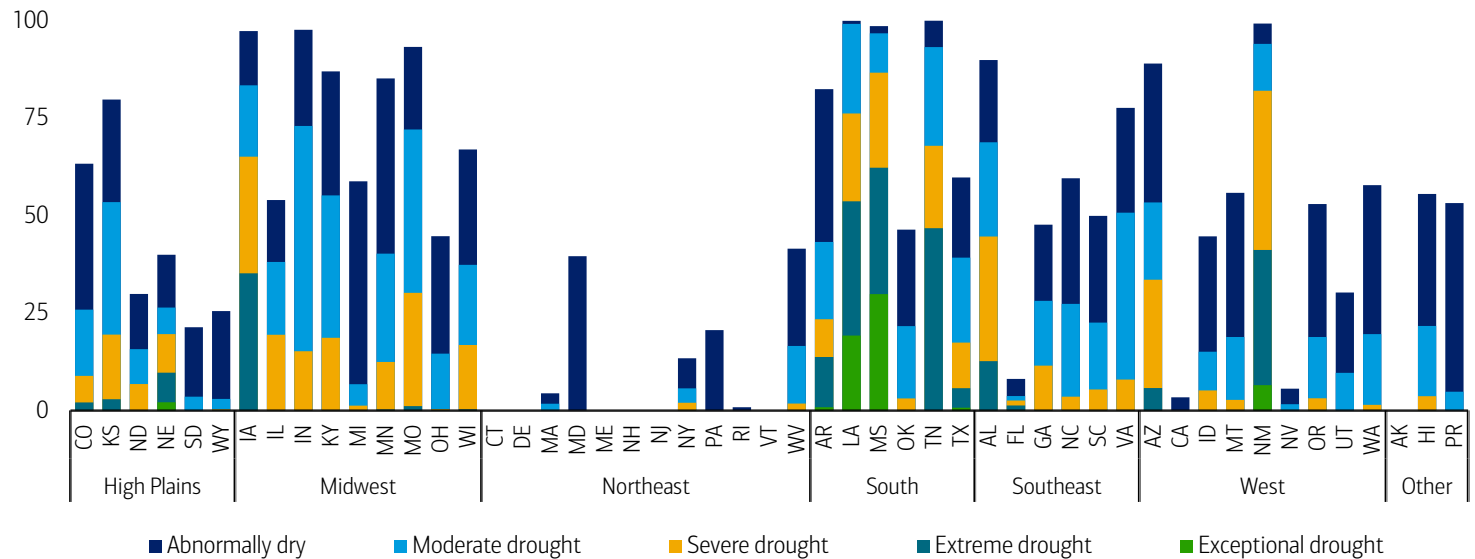
Note: W = West; HP = High Plains; MW = Midwest; NE = Northeast; SE = Southeast; and S = South. Data as of 26 December 2023.

Source: US Drought Monitor

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### Exhibit 38: US state drought conditions (% by area)

Six states have areas under the worst drought conditions: NE, AR, LA, MS, TX and NM



Note: Data as of 26 December 2023.

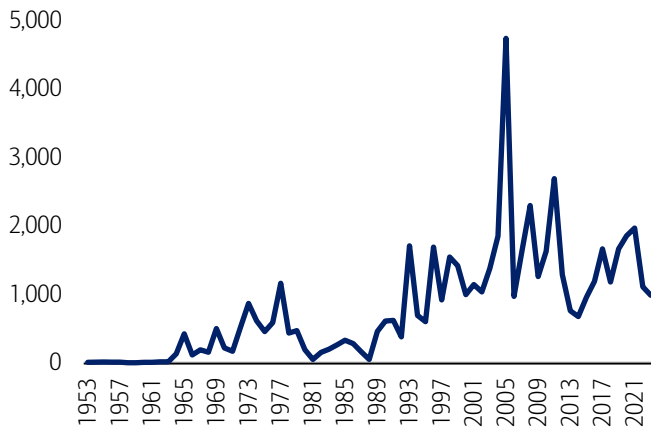
Source: US Drought Monitor

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## FEMA disaster declarations tracking

### Exhibit 39: FEMA disaster declarations count by calendar year

Since 1953, 24yrs had 1K+ events; 21 of those yrs occurred within past 25



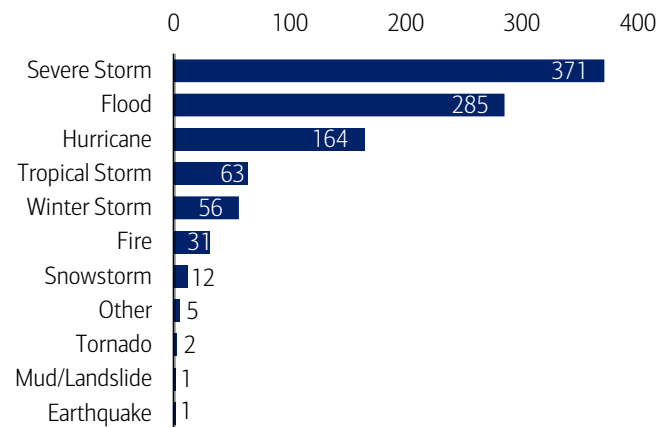
Note: Data as of 31 December 2023.

Source: Federal Emergency Management Agency

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### Exhibit 40: FEMA disaster declarations by type, 2023

991 disaster declarations in 2023; 371 driven by Severe Storms



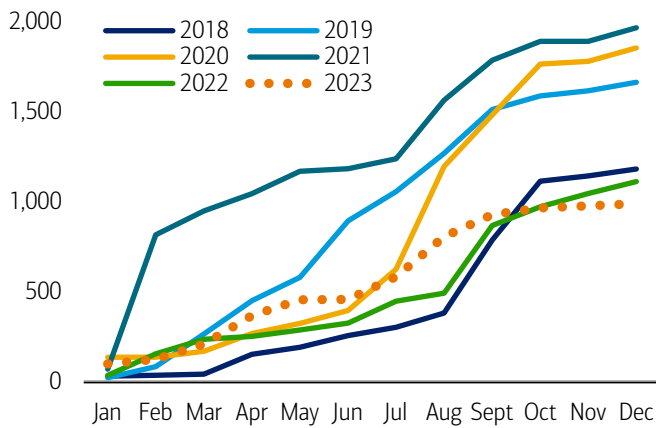
Note: Data as of 31 December 2023.

Source: Federal Emergency Management Agency

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### Exhibit 41: Cumulative annual FEMA disaster declarations

2023 disaster declaration count was the lowest for the past six years



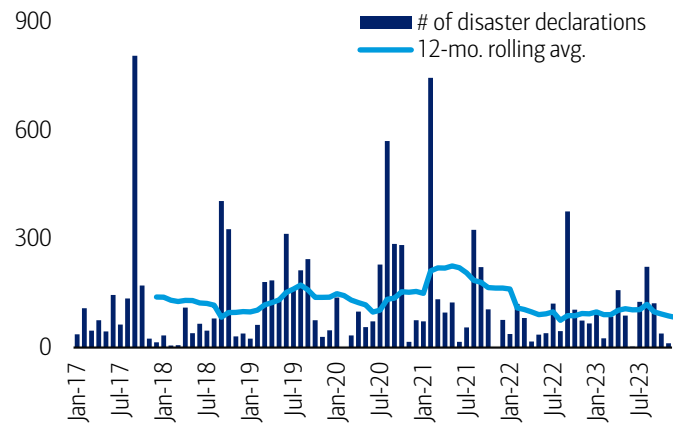
Note: Data as of 31 December 2023.

Source: Federal Emergency Management Agency

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### Exhibit 42: Count of disaster declarations by month

Most disaster declarations generally occur around hurricane season



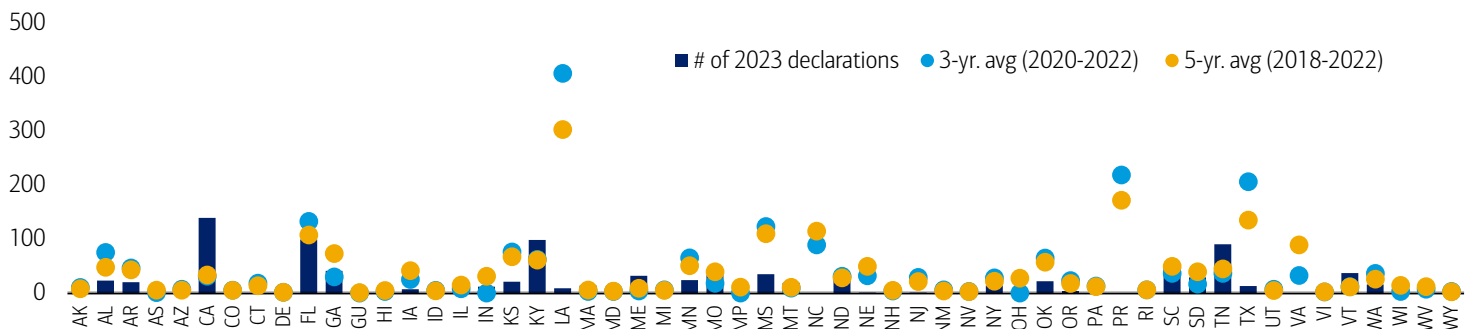
Note: Data as of 31 December 2023.

Source: Federal Emergency Management Agency

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### Exhibit 43: Number of 2023 disaster declarations by state and territory

California had the most disaster declarations in 2023 at 139, above its 3-year average of 31 and its 5-year average of 33



Note: Data as of 31 December 2023.

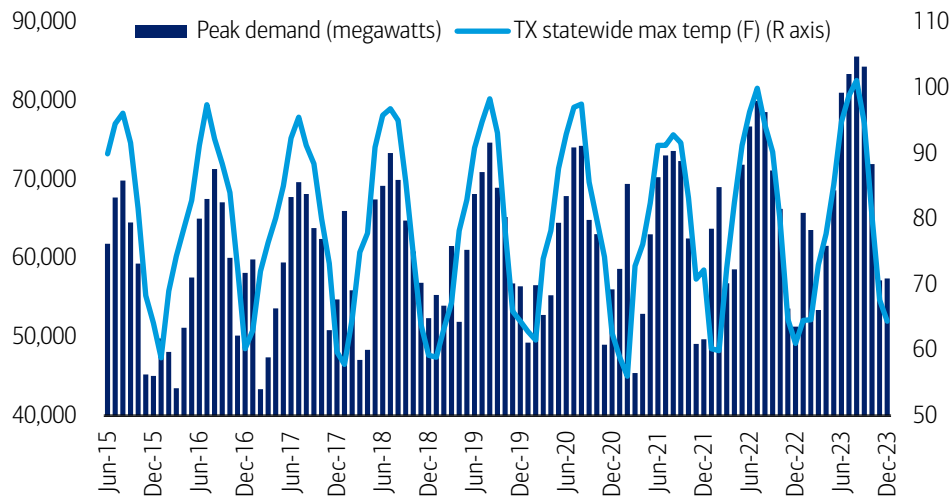
Source: Federal Emergency Management Agency

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## ERCOT demand

### Exhibit 44: ERCOT peak electricity demand & max TX temperature, monthly

Peak electricity demand was 57.4GW in December, down from the record of 85.6GW set in August



**Note:** ERCOT = Electric Reliability Council of Texas. F = Fahrenheit. Data as of 31 December 2023.

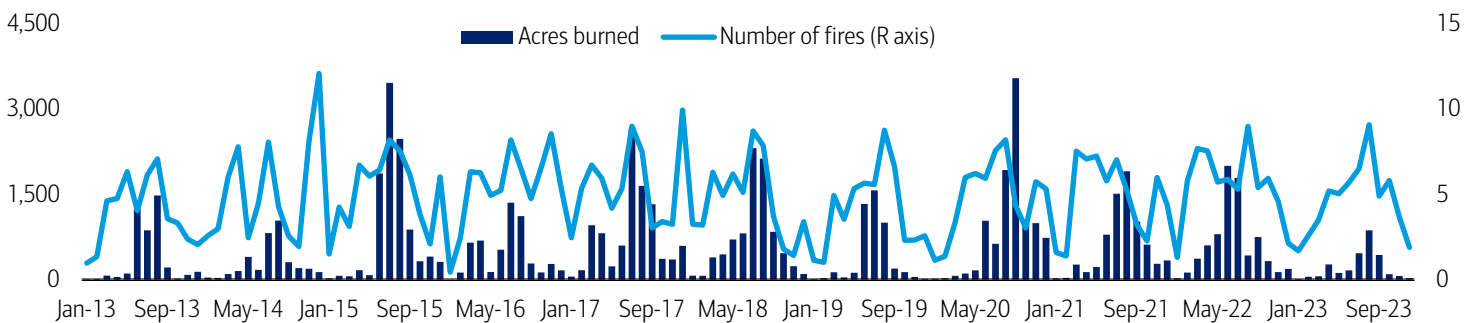
**Source:** Bloomberg, National Oceanic and Atmospheric Administration

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## US wildfires

### Exhibit 45: Number of US wildfires and acres burned, by month (000s)

Dec-23's 1,886 wildfires burned 28,297 acres; For 2023, 55,571 fires burned 2,633,636 acres, or 65% less acres burned vs 2022



**Note:** Data as of 31 December 2023.

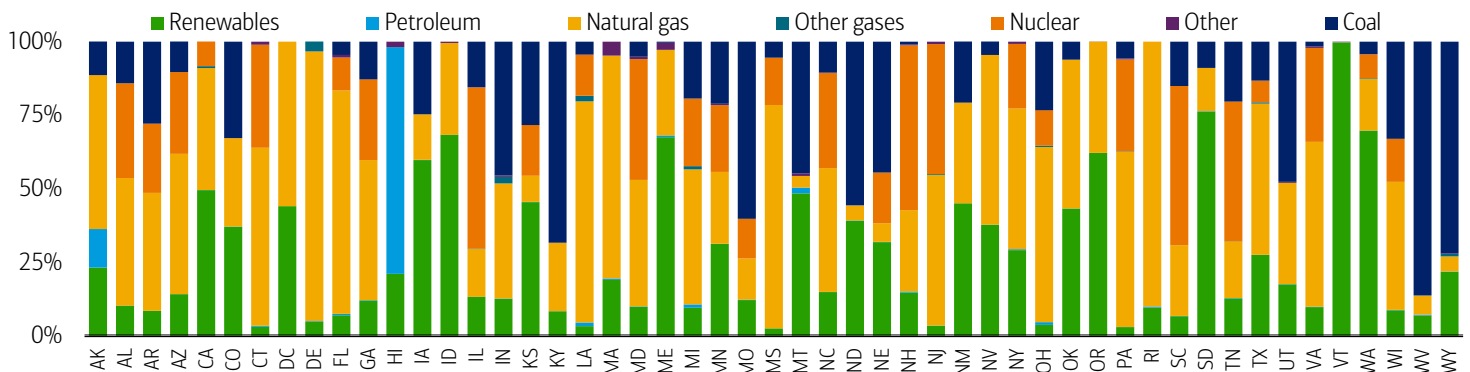
**Source:** National Centers for Environmental Information

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## US state net power generation mix

### Exhibit 46: Net power generation by energy source (YTD-23 through October)

7 states with more than 50% of net power generation through Renewables



**Source:** US Energy Information Administration

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## Muni ESG research compilation

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Below is a compilation of our muni ESG related discussions in December:

### [Monthly Municipal ESG Monitor: November 2023 \(19 December\)](#)

- November Muni ESG issuance: all labeled totaled \$5.4bn, up 30% y/y; ICMA-aligned totaled \$4.4bn, up 6% y/y.
- Muni ESG fund monthly flows totaled \$2.0mn in November; YTD flows totaled - \$71.8mn.
- Bloomberg's Muni Impact index returned 7.18% for November and 4.87% YTD.

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