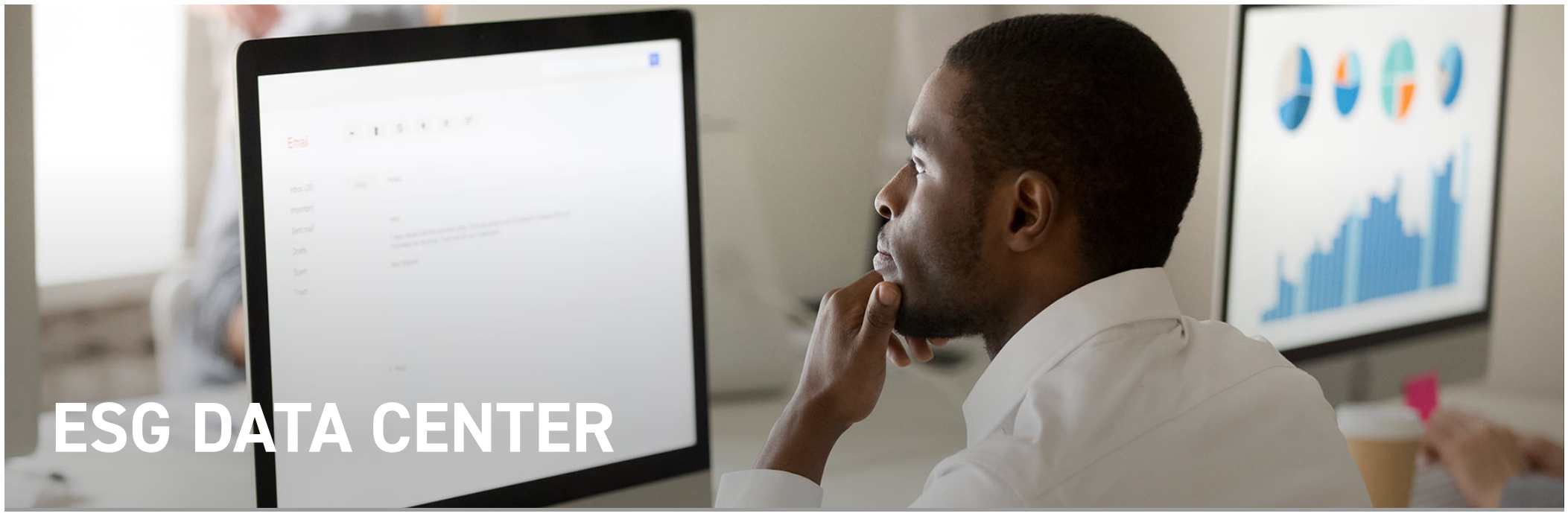

ESG DATA CENTER

ENVIRONMENTAL, SOCIAL & GOVERNANCE DATA

At AEP, we understand the importance of providing clear, accurate and consistent data and information in a timely manner. AEP's ESG Data Center reflects our commitment to transparency by proactively sharing data and information about our sustainability goals, strategy and environmental, social and governance performance. This demonstrates that we are listening to our stakeholders and addressing issues that are most relevant for our business.

We also map our sustainability performance to several frameworks, including: TCFD, SASB, CDP and GRI Reports.

ESG Reports

The metrics and data points for the ESG Data Center are gathered from several sources, including GRI, CDP and EEI ESG/Sustainability Report. The quality control and assurance process for the data center differs from that of the 2020 Corporate Accountability Report, and is not included in the scope of the internal audit process.

ESG Data Center

ESG Data

ESG Data Glossary

Energy

Owned Generation Capacity (MW)

	2018	2019	2020
Total Owned Nameplate Generation Capacity (MW)	25,447	25,490	**25,490**
Coal	14,056	13,230	**13,230**
Natural Gas	7,809	7,678	**7,678**
Nuclear	2,278	2,288	**2,288**
Total Renewable Energy Resources	1,304	2,294	**2,294**
Hydroelectric	853	853	**853**
Solar	190	229	**229**
Wind	261	1,212	**1,212**
Other Renewable	0	0	**0**

Owned Net Generation (MWh)

	2018	2019	2020
Total Owned Net Generation	95,667,918	86,252,164	**76,459,982**
Coal	63,001,348	52,275,888	**38,184,607**
Natural Gas	13,318,616	13,953,693	**14,175,228**
Nuclear	17,610,815	16,157,850	**18,268,937**
Total Renewable Energy Resources	1,737,139	3,864,733	**5,831,210**
Hydroelectric	871,669	843,360	**1,121,235**
Solar	273,057	249,440	**535,200**
Wind	592,413	2,771,933	**4,174,775**
Other Renewable	0	0	**0**

Purchased Net Generation (MWh)

	2018	2019	2020
Total Purchased Generation	-	20,130,649	**18,069,220**
Coal	-	5,441,084	**4,410,801**
Natural Gas	-	5,089,151	**4,355,732**
Nuclear	-	0	**0**
Total Renewable Energy Resources	-	9,600,414	**9,302,687**
Hydroelectric	-	174,893	**234,869**
Solar	-	12,512	**11,825**
Wind	-	9,413,009	**9,055,993**
Other Renewable	-	0	**0**

Total Net Generation (MWh)

	2018	2019	2020
Total Net Generation for the Data Year	105,653,095	106,382,813	**94,529,102**

Coal	63,001,348	57,716,972	**42,595,308**
Natural Gas	13,318,616	19,042,844	**18,530,960**
Nuclear	17,610,815	16,157,850	**18,268,937**
Total Renewable Generation	11,722,316	13,465,147	**15,133,897**
Hydro	1,160,659	1,018,253	**1,356,104**
Solar	286,105	261,952	**547,025**
Wind	10,275,552	12,184,942	**13,230,768**
Other Renewable	0	0	**0**

Facility Energy Performance

	2018	2019	2020
Facility energy consumption (KWh)	151,853,197	135,853,591	**125,005,335**

Emissions

Scope 1 Emissions Breakdown

Emissions from AEP owned facilities only

	2018	2019	2020
CO_2 (MT)	78,058,873	58,447,520	**44,369,322**
SO_2 (Lbs)	137,291,386	104,466,589	**65,521,727**
SO_2 (MT)	62,274	47,385	**29,720**
NO_x (Lbs)	99,830,243	78,809,057	**52,889,173**
NO_x (MT)	45,282	35,747	**23,990**
Mercury (Lbs)	395	311	**195**
Mercury (kg)	179	141	**89**

Scope 1 Emissions GHG CO_2e

	2018	2019	2020
CO_2 (MT)	74,661,649	64,157,262	**48,807,820**

CH_4 (MT CO_2e)	225,741	190,755	**141,581**
N_2O (MT CO_2e)	310,447	262,141	**194,305**
SF_6 (MT CO_2e)	163,408	166,149	**127,667**

Water

Total Water Withdrawal

* Beginning in 2020 total water withdrawal includes surface, ground, municipal and grey water sources (Comanche Plant)

	2018	2019	2020
Total Water Withdrawal (Million Gallons per day)	4,178.13	3,985.25	**4,019.68**
Total Water Withdrawal (Million Gallons/ year)	1,526,912	1,454,614	**1,471,202**
Total Water Withdrawal (Billions of Liters/year)	5,773	5,506	**5,569**
Total Water Withdrawal (Millions of m3/year)	5,773	5,506	**5,569**

Water Withdrawal by Source Breakdown

	2018	2019	2020
Surface Water Withdrawal (Million Gallons per day) Excludes groundwater, municipal and Comanche Plant	4,171.74	3,979.37	**4,014.89**
Surface Water Withdrawal (Million Gallons/ year) Excludes groundwater, municipal and Comanche Plant	1,524,579	1,452,470	**1,469,450**
Surface Water Withdrawal (m3/year) Excludes groundwater, municipal and Comanche Plant	5,763,987,404	5,498,194,652	**5,562,475,449**
Groundwater (m3/year)	7,306,941	6,984,231	**5,474,566**
Other (m3/year) Represents Comanche Plant withdrawal	1,525,092	1,138,772	**1,156,019**

Water Discharge

Water discharge data is derived from plant water balance diagrams and water withdrawal information. All water discharge represents surface water discharge.

	2018	2019	2020
Total Water Discharge (Million Gallons per day)	4,065	3,881	**3,900**
Total Water Discharge (Million Gallons/ year)	1,483,816	1,416,383	**1,427,571**

Total Water Discharge (Billions of Liters/year)	5,617	5,362	**5,404**
Total Water Discharge (m3/year)	5,616,852,871	5,361,588,479	**5,403,941,000**

Water Consumption

All water consumption is freshwater. Water consumption data is derived from plant water balance diagrams and water withdrawal information.

	2018	2019	2020
Total Water Consumption (Million Gallons per day)	132.06	121.18	**140.45**
Total Water Consumption (Million Gallons/ year)	48,202	44,230	**51,405**
Total Water Consumption (billions of Liters/year)	182	167	**195**
Total Water Consumption (m3/year)	182,463,954	167,428,676	**194,589,711**

Water Intensity

Water intensity data is an average value across our steam electric system. AEP does not include renewable MWhs in intensity metrics because water is not used in the renewable energy process. Plants that AEP only has partial ownership are also excluded as AEP does not control the way they operate.

	2018	2019	2020
Consumptive Water use intensity (gallons/Net MWh)	513	556	**764**
Consumptive Water use intensity (Billions of liters/Net MWh)	0.0000019	0.0000021	**0.0000029**
Non- Consumptive Water use intensity (gallons/Net MWh)	15,786	17,814	**21,210**
Non- Consumptive Water use intensity (Billions of liters/Net MWh)	0.0000598	0.0000674	**0.0000803**

Waste

Facility Waste Generation

Waste data does not include waste streams from competitive portion of business

	2018	2019	2020
Recycled Paper and Office Waste (Lbs)	382,000	159,300	**67,581**
Recycled Scrap Metal Waste (Lbs)	50,500,000	28,950,000	**40,685,181**
Batteries Recycled (Lbs)	216,000	169,000	**171,545**
Electronic Waste Recycled(Lbs)	234,000	430,000	**28,183**

Light Bulbs Recycled (Lbs)	40,200	44,500	**26,727**
Recycled used Oil (Gallons)	400,500	725,500	**273,994**

Coal Combustion Products

	2018	2019	2020
Total CCPs Generated (Tons)	4,846,451	4,123,466	**2,908,761**
Total CCPs Diverted from Landfill (Tons)	1,865,401	1,593,164	**1,019,205**
Total CCP Diverted from Landfill Percent	38%	39%	**35%**

Biodiversity

	2018	2019	2020
Total acres of habitat protected, enhanced or restored that supports natural habitat and biodiversity as required for mitigation Habitat protected or restored as required by regulation includes wetland and riparian habitat mitigations to meet Corps requirements, Habitat Conservation Plans to meet USFWS requirements, New Source Review Consent Decree Projects pursuant to a consent decree, and the protection/enhancement of hydroelectric project shorelines and reservoirs to meet FERC requirements.	/	/	**28,520**
Total acres of habitat protected, enhanced or restored that supports natural habitat and biodiversity voluntarily Voluntary protections include conservation areas set aside to protect unique habitats, property donations to wildlife management and other organizations, land sales to conservation organizations, enhancement of cooling water reservoirs to create fish habitat, the reforestation of mine lands and vegetation restoration beyond regulatory requirements, and the establishment of tree plantations.	/	/	**251,663**

Economic

Financial Data

	2018	2019	2020
Total Revenue	$16.2 Billion	$15.56 Billion	**$14.92 Billion**
Total Assets	$68.8 Billion	$75.9 Billion	**$80.8 Billion**
Total Annual Capital Expenditures/investments (nominal dollars)	$5,964 Million	$7,567 Million	**$5,893 Million**

Taxes Paid

	2018	2019	2020
Local and State	$1,166 Million	$1,220 Million	**$1,303 Million**
Federal	$80 Million	$118 Million	**$70 Million**

Earnings Performance

	2018	2019	2020
Earnings per Share (GAAP)	$3.90	$3.89	**$4.44**
Operating Earnings per Share	$3.95	$4.24	**$4.44**
Cash Dividends per Common Share	$2.53	$2.71	**$2.84**

Financial Disclosures

	2018	2019	2020
AEP 10K Report Links (by year released)	2018 Report	2019 Report	**2020 Report**

Customer

Customers

	2018	2019	2020
Residential	4,649,514	4,661,713	**4,709,111**
Commercial	709,606	712,800	**721,900**
Industrial	47,957	47,676	**46,576**
Other	30,304	30,177	**30,183**
Total	5,437,381	5,452,366	**5,507,770**

Customer Energy Efficiency Programs and Smart Meters

	2018	2019	2020
Percent of total Electric Customers with smart meters	47%	56%	**60%**
Total Investment in Energy Efficiency Programs	/	$161,000,000	**$150,299,080**

Incremental Annual Electricity Savings from Energy Efficiency Measures (MWh)	1,022,257	1,098,444	**1,148,334**
Annual Demand Savings (MW)	273	302	**320**
Avoided CO_2 Emissions (MT)	525,189	527,212	**477,475**
Number of residential customers that participate in Energy Efficiency Programs	/	/	**1,034,389**

Customer Disconnects

Credit related service terminations were suspended during a portion of the year due to COVID-19 mitigation. This activity was initiated again in some areas in a limited manner.

	2018	2019	2020
Total Number of Customer Disconnects	/	487,943	**265,204**
Total Number of reconnects within 7 days	/	381,968	**206,391**
Total Number of residential Customer Disconnects	/	/	**252,456**
Residential Reconnects within 7 Days	/	/	**197,963**

Customer Assistance

	2018	2019	2020
Residential Energy Affordably Transactions	401,280	428,057	**580,182**
Energy Assistance Funds Provided to Low-Income Customers 2020 data shows a 41% increase in government-sponsored energy assistance programs compared to 2019 – in response to the pandemic.	$56.3 Million	$64.9 Million	**$91.7 Million**
Number of Agency Pledges made Online	/	27,221	**24,286**
Amount contributed to Agency Pledges for Energy Assistance	/	~$6.6 Million	**~$6.7 Million**

Grid Reliability

Grid Overview

	2018	2019	2020
Transmission Lines	~40,000	~ 40,000	**~ 40,000**
Distribution Lines	~220,000	~ 221,000	**~223,000**

Reliability			
	2018	**2019**	**2020**
System Average Interruption Duration Index (SAIDI) (Minutes) Includes major storm events	256.60	228.80	**231.80**
System Average Interruption Frequency Index (SAIFI) - Number of interruptions Includes major storm events	1.53	1.41	**1.47**
Customer Average Interruption Duration index (CAIDI) (Minutes) Includes major storm events	167.70	162.80	**158.00**
Customer Average Interruption Frequency (CAIFI) (Minutes) Includes major storm events	2.16	2.00	**2.19**
Average System Availability Index (ASAI)	99.95%	99.96%	**99.96%**

Community Impact

Economic and Business Development			
	2018	**2019**	**2020**
Economic Development Contributions	$1,323,038	$2,597,874	**$1,901,036**
Jobs Supported by AEP's Economic and business Development	14,700	21,000	**29,808**
Amount Spent on Employee Wages	$2.3 Billion	$1.9 Billion	**$1.8 Billion**

Charitable Giving			
	2018	**2019**	**2020**
Total Charitable Giving	$25.5 Million	$29.6 Million	**$38.5 Million**
Percent of Charitable Giving by area of Focus			
Education	32%	31%	**32%**
Community	17%	19%	**14%**
Hunger and Housing	12%	14%	**14%**
Safety and Health	11%	13%	**11%**
Arts and Culture	7%	6%	**7%**
Youth	9%	5%	**4%**
Covid-19	/	/	**10%**

Other	12%	11%	**8%**

Workforce

Employee Type			
	2018	**2019**	**2020**
Total Number of Employees	17,565	17,487	**16,864**
Number of full-time Employees	17,537	17,458	**16,840**
Number of part-time Employees	28	29	**24**
Total Number of Represented Employees	4,417	4,133	**4,015**
Total Number of Veteran Employees	1,814	1,742	**1,706**
Percent of Veteran Employees	10%	10%	**10%**
Total number of Professionals	5,598	5,743	**5,600**
Total number of Officials and Managers	3,288	3,326	**3,175**
Total number of executive/senior level officials	225	234	**232**

Employee Training and Education Assistance			
	2018	**2019**	**2020**
Total Hours of Employee Training (Hours) In 2020, we experienced lower than normal training hours due to reduced in-person, instructor-led training due to COVID-19 safety protocols. In addition, we transitioned to virtual training where possible, which often requires less time to complete.	1,007,153	1,130,628	**775,500**
Amount spent on Tuition Reimbursement	2,043,839	2,063,794	**2,042,634**
Total number of career development advancements	1,241	1,227	**787**
Percent of workforce receiving Career Development Reviews	/	70.38%	**71.66%**

Workforce Planning			
	2018	**2019**	**2020**
Planned Employee Leave or Retirement over the next 5 years	3,859	4,533	**4,275**
Employee Turnover Rate	6.80%	8.68%	**8.56%**

Total Transmission and Distribution Apprentices	/	/	**807**
Total co-op students, interns and high school interns	/	/	**50**

Workforce Demographics

	2018	2019	2020
Traditionalists (1945 and Before)	<1%	<1%	**<1%**
Baby Boomers (1946-1964)	36%	31%	**27%**
Generation X (1965-1980)	35%	36%	**37%**
Millennials (1981-1996)	28%	32%	**34%**
Generation Z (1997 and Beyond)	<1%	<1%	**1%**

Safety & Health

Employee Metrics

	2018	2019	2020
Employee DART Rate	0.393	0.4120	**0.310**
Total Employee Recordable Incident Rate (TRIR)	0.672	0.673	**0.576**
Employee Lost Time Incident Rate (LTIR)	0.310	0.329	**0.245**
Employee Severity Rate	17.568	22.719	**15.284**
Total Employee OSHA Recordable Events	/	129	**106**
Employee Fatalities	1	1	**0**

Contractor Metrics

AEP Contractors includes Forestry

	2018	2019	2020
Contractor DART Rate	0.507	0.544	**0.410**
Total Contractor Recordable Incident Rate (TRIR)	/	/	**0.927**
Contractor Lost Time Incident Rate (LTIR)	/	/	**0.246**
Total Contractor OSHA Recordable Events	/	225	**147**

Employee and Contractor Metrics			
AEP Contractors includes Forestry			
	2018	**2019**	**2020**
Employee and Contractor DART Rate	0.446	0.477	**0.356**
Combined Employee & Contractor DART Events	161	178	**122**

Public Metrics			
	2018	**2019**	**2020**
Public Fatalities due to electrical contacts	6	4	**2**

Diversity & Inclusion

Workforce Diversity			
	2018	**2019**	**2020**
Total Female Employees	3,409	3,454	**3,325**
Total percent of Female Employees	19%	20%	**20%**
Number of Female Professionals	1,503	1,578	**1,535**
Number of Female Officials and Managers	494	543	**538**
Number of Female employees in an Executive/Senior level position	36	40	**44**
Percent of workforce receiving Career Development Reviews for female employees	/	/	**90%**
Number of development advancements for female employees	288	250	**175**
Total Minority Employees	3,127	3,233	**3,187**
Total percent of minority Employees	18%	18%	**19%**
Number of Minority Professionals	1,062	1,128	**1,140**
Number of Minority Officials and Managers	384	419	**419**
Number of Minority employees in an Executive/Senior level position	22	25	**28**
Number of development advancements for minority employees	192	244	**156**

Supplier Diversity

	2018	2019	2020
Total Supplier Spend (Billions)	$6.9 Billion	$6.8 Billion	**$6.5 Billion**
Diverse Supplier Spend (Millions)	$365 Million	$401 Million	**$653 Million**
"Local Based Supplier Spend (Billions) *The term "locally" is used to describe businesses registered in the traditional 11 states in which AEP operates."	$3.4 Billion	$3.3 Billion	**$3.4 Billion**
Small Business Supplier Spend (Millions)	$971 Million	$882 Million	**$993 Million**
Percentage of total corporate spend on Locally based suppliers (as a percent of total spend)	48%	49%	**53%**
Percent procurement spend on goods and services on diverse suppliers (as a percent of total managed spend)	6.30%	7.40%	**10.17%**
percentage total corporate spend on goods and services from small businesses (as a percent of total spend)	14%	13%	**15%**

Governance

Governance Overview
2021 data as of April 20, 2021- post annual meeting

	2018	2019	2020	2021
Board Meetings Held	7	7	7	**7**
Average Board attendance	98%	97%	97%	**100%**
Total number on the Board of Directors	12	13	13	**12**
Number of independent Directors	11	12	12	**11**
Independent CEO and Lead Director	no	no	no	**no**

Director Gender

	2018	2019	2020	2021
Men	9	9	9	**8**
Woman	3	4	4	**4**

Director Age

	2018	2019	2020	2021
50s	2	2	3	**3**
60s	8	9	6	**7**
70s	2	2	4	**2**
Board Average Age	64	65	66	**64**

Director Tenure

	2018	2019	2020	2021
0-5 years	4	4	2	**3**
6-10 years	4	4	7	**6**
11-15 years	4	4	4	**3**
Average years of Tenure	8	9	8	**8**

Director Ethnic Diversity

	2018	2019	2020	2021
White	10	11	11	**9**
Hispanic	1	1	2	**2**
African American	0	1	0	**1**
Other	0	0	0	**0**

Governance Disclosures

- Proxy Statement
- AEP's Principles of Corporate Governance
- AEP Director Independence Standards
- AEP Bylaws
- AEP's Certificate of Incorporation
- AEP Code of Business Conduct and Ethics
- Criteria for Evaluating Directors
- AEP Principles of Business Conduct
- AEP Supplier Code of Conduct
- Facts about AEP's Board
- AEP Political Engagement Policy
- AEP Anti-Corruption Policy
- Consideration of Candidates for Director Recommended by Shareholders
- Board Policy on Recouping Executive Compensation
- Related person Transaction Approval Policy

Policy and Disclosures

Publicly Available Policies and Disclosures

- Anti-Corruption Policy
- AEP Political Engagement Policy
- AEP's Insider Trading Policy
- Related Person Transaction Approval Policy
- Environment, Safety and Health Policy
- AEP's Annual Report of Corporate Political & Social Welfare Organization Contributions and Trade Association Lobbying

Internal Policies

- Sexual Harassment Policy
- Anti-Discrimination Policy
- Safety & Health Policy
- AEP's PII Data Privacy Protection Policy
- AEP's Prohibition Against Pornography and Offensive Material Policy
- AEP's Anti Fraud Policy
- AEP's Whistle Blower Protection Policy

To help ensure employee safety and security, many AEP policies are internal policies only. All employees have access to all policies through the AEP intranet database.

Sustainability Disclosures

- GRI
- CDP Water
- CDP Climate
- TCFD
- SASB Report
- Supply Chain Management
- ESG Strategy and Performance Report
- EEI ESG/Sustainability Report
- AEP Sustainability Goals