# Welcome to your CDP Water Security Questionnaire 2022

# W0. Introduction

## W0.1

**(W0.1) Give a general description of and introduction to your organization.**

American Electric Power, based in Columbus, Ohio, is focused on building a smarter energy infrastructure and delivering new technologies and custom energy solutions to our customers. AEP's approximately 16,700 employees operate and maintain the nation's largest electricity transmission system of 40,000 miles and more than 224,000 miles of distribution lines to efficiently deliver safe, reliable power to approximately 5.5 million regulated customers in 11 states. AEP also is one of the nation's largest electricity producers with approximately 26,000 megawatts (MW) of owned generating capacity, including more than 4,000 MW of renewable energy[TWL1] . More than 20,600 MW of renewable energy is interconnected across the U.S. via AEP's transmission network. By 2030, our current resource plans call for our regulated utilities to add up to 6,629 MW of solar, and up to 8,552 MW of wind. We expect renewables will represent approximately 50% of our generating resource mix by 2030. In 2021, AEP's carbon emissions were 70% below 2000 levels (baseline), while SO2 and NOx emissions were reduced 98% and 95%, respectively, during the same timeframe. AEP's family of companies includes utilities AEP Ohio, AEP Texas, Appalachian Power (in Virginia and West Virginia), AEP Appalachian Power (in Tennessee), Indiana Michigan Power, Kentucky Power, Public Service Company of Oklahoma, and Southwestern Electric Power Company (in Arkansas, Louisiana, east Texas and the Texas Panhandle). AEP also owns AEP Energy Supply, which provides innovative competitive energy solutions nationwide. For more information, visit AEPsustainability.com.

## W-EU0.1a

**(W-EU0.1a) Which activities in the electric utilities sector does your organization engage in?**

Electricity generation
Transmission
Distribution
Other, please specify

Smart grids/Demand Response; battery storage; micro grids; coal mining. Response to generation capacity section below is for facilities that were owned and operated by AEP during 2021. Information is based on operated capacity and gross generation.

# W-EU0.1b

**(W-EU0.1b) For your electricity generation activities, provide details of your nameplate capacity and the generation for each technology.**

| | Nameplate capacity (MW) | % of total nameplate capacity | Gross electricity generation (GWh) |
|---|---|---|---|
| Coal – hard | 11,114 | 46.74 | 41,599 |
| Lignite | 675 | 2.84 | 2,660 |
| Oil | 0 | 0 | 0 |
| Gas | 7,593 | 31.93 | 13,041 |
| Biomass | 0 | 0 | 0 |
| Waste (non-biomass) | 0 | 0 | 0 |
| Nuclear | 2,288 | 9.62 | 17,961 |
| Fossil-fuel plants fitted with carbon capture and storage | 0 | 0 | 0 |
| Geothermal | 0 | 0 | 0 |
| Hydropower | 853 | 3.59 | 860 |
| Wind | 1,129 | 4.75 | 2,385 |
| Solar | 125 | 0.53 | 270 |
| Marine | 0 | 0 | 0 |
| Other renewable | 0 | 0 | 0 |
| Other non-renewable | 0 | 0 | 0 |
| Total | 23,777 | 100 | 78,776 |

# W0.2

**(W0.2) State the start and end date of the year for which you are reporting data.**

| | Start date | End date |
|---|---|---|
| Reporting year | January 1, 2021 | December 31, 2021 |

# W0.3

**(W0.3) Select the countries/areas in which you operate.**

United States of America

# W0.4

**(W0.4) Select the currency used for all financial information disclosed throughout your response.**

USD

# W0.5

**(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.**

Companies, entities or groups over which operational control is exercised

# W0.6

**(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?**

Yes

# W0.6a

**(W0.6a) Please report the exclusions.**

| Exclusion | Please explain |
|---|---|
| Corporate facilities that house administrative or support functions including, but not limited to, office buildings, transmission and distribution operations, warehouses, and maintenance buildings. | Only regulated generation facilities over which AEP exercises operational control are included in this disclosure, since these are the facilities with significant exposure to water issues that can be directly controlled by AEP ("regulated" facilities are those whose rates are approved by a state or federal governing body). This includes our steam electric generating plants (coal, lignite, gas, nuclear) which are our largest users of water. Water use, beyond drinking water, is not generally tracked at our office buildings, transmission and distribution facilities, warehouses, and maintenance buildings. Water use at these facilities is significantly less than that at our steam electric plants. Typically, water is purchased from municipal water supplies or withdrawn from wells for use at these facilities and any associated water risks are generally very low. Under rare circumstances, water pollution incidents may occur at our electric transmission and distribution facilities. |

# W0.7

**(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?**

| Indicate whether you are able to provide a unique identifier for your organization. | Provide your unique identifier |
|---|---|
| Yes, an ISIN code | 0255371017 |

# W1. Current state

## W1.1

**(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.**

| | Direct use importance rating | Indirect use importance rating | Please explain |
|---|---|---|---|
| Sufficient amounts of good quality freshwater available for use | Vital | Important | Adequate water quantity is needed for electric generation facilities (direct use) and for the development of fuel sources, such as gas fracking, coal mining and barge transportation (indirect use). At our steam electric facilities, water is used for cooling, internal processes, air pollution control and sanitation. It is vital that adequate freshwater be available in order to operate our power plants and generate electricity. Adequate water quality is needed to protect generation equipment and to ensure compliance with water quality standards and for general operations. It is important that sufficient water is available to develop fuel sources (coal mining and gas fracking) as well as to support our own barge fleet, as well as the fleets of other suppliers. It is also essential to supply clean potable (drinking and sanitation) water to our employees. Our water dependency has decreased and will continue to decrease as the company transitions to less water-dependent sources of electricity, such as wind and solar. For example, our Pirkey Plant will be retired during 2023, reducing our overall water withdrawal by 557,721 megaliters per year. |
| Sufficient amounts of recycled, brackish and/or produced water available for use | Important | Important | Recycled water is used at generation facilities (direct use), particularly at our Comanche Plant in Oklahoma, which uses water from the City of Lawton's POTW (publicly-owned treatment works). It is important that recycled water be available in this part of the country due to the |

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| | | | incidence of periodic droughts. Recycled or brackish water is also used for gas fracking (indirect use as part of our supply chain as AEP does not conduct natural gas fracking, which is an important part of AEP's fuel supply portfolio. In some areas, access to freshwater for gas fracking operations is limited, thus encouraging the use of recycled water. This water dependency has decreased and will continue to decrease as the company transitions to less water-dependent sources of electricity, such as wind and solar. |

# W1.2

**(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?**

| | % of sites/facilities/operations | Please explain |
|---|---|---|
| Water withdrawals – total volumes | 100% | Surface water and groundwater withdrawals from all steam electric facilities (coal, lignite, gas, nuclear) are reported here. A steam-electric power plant is a facility where the electric generator is steam driven. Water is heated using coal, gas or nuclear fuel, to create steam, which spins a turbine and drives an electrical generator. Facility staff acquire the water use information using a variety of methods including pump rating curves, operation time, net MWhs, metered information and pumping rates. |
| Water withdrawals – volumes by source | 100% | Water withdrawals by source (surface water, d groundwater and third party) for all steam electric facilities are reported here. A steam-electric power plant is a facility where the electric generator is steam driven. Water is heated using coal, gas or nuclear fuel, to create steam, which spins a turbine and drives an electrical generator. Facility staff acquire the water use information using a variety of methods including pump rating curves, operation time, net MWhs, metered information and pumping rates. |
| Water withdrawals quality | 100% | The quality of water withdrawals is consistently measured to ensure the proper operation of power plant equipment. Good quality freshwater, with total dissolved solid levels of less than 1000 |

| | | |
|---|---|---|
| | | mg/L, is needed for all of our steam electric facilities (previously our Oklaunion Plant, now retired, could use lower quality water). Our facilities are designed to use water of a certain quality. If the water quality becomes degraded, the units with cooling towers could become susceptible to scaling on the surface condenser, which could create difficulties in meeting wastewater discharge permit limits. Density intrusion events at our Turk Plant will continue to be an issue as the quality of the Little River in Arkansas is of poor quality, often precluding its use for steam electric generation. |
| Water discharges – total volumes | 100% | Surface water discharges from steam electric facilities (coal, lignite, gas, nuclear) are reported here. The discharge volume of each facility is recorded as per state-issued NPDES permit requirements. |
| Water discharges – volumes by destination | 100% | Surface water discharges from steam electric facilities are reported here. The discharge volume of each facility is recorded by outfall location and destination per state-issued NPDES permit requirements. The destination of water discharges varies by facility and effluent type. For example, at the AEP Rockport Plant in Indiana, the main discharge is to the Ohio River, while landfill leachate is discharged to Honey Creek, a tributary of the Ohio River. |
| Water discharges – volumes by treatment method | 100% | Surface water discharges from steam electric facilities (coal, lignite, gas, nuclear) are reported here. The discharge volume of each facility is recorded by treatment method as per state-issued NPDES permit requirements. For example, the methods used to treat the scrubber blowdown at the AEP Mountaineer Plant in West Virginia are described in NPDES permit renewal applications, modifications, and other documents submitted to the state. |
| Water discharge quality – by standard effluent parameters | 100% | Surface water discharges from steam electric facilities (coal, lignite, gas, nuclear) are reported here. The discharge quality of each facility is recorded by standard effluent parameters (i.e. pH) as per NPDES permit requirements. For example, at the AEP Amos Plant in West |

| | | |
|---|---|---|
| | | Virginia, the main discharge to the Kanawha River is monitored weekly for flow, twice per month for pH, total suspended solids, copper, mercury, aluminum, and selenium, monthly for temperature, quarterly for other metals, ammonia, oil and grease, total residual chlorine, and nitrate/nitrite, and twice per year for chronic aquatic toxicity. |
| Water discharge quality – temperature | 100% | While water discharge temperature reporting is not always required, it is measured 100% of the time at those facilities where required by state or federal regulation. All once-through, non-contact cooling water discharges are monitored. |
| Water consumption – total volume | 100% | Surface water consumption is not a required measurement; however, it is estimated based on facility design flows and the reported water withdrawal value. |
| Water recycled/reused | 76-99 | At different facilities, water is reused and recycled in different ways, leading to variable methods and frequency of measurement depending on the facility. Water is also recycled at many of the western plants that are on cooling water reservoirs (Comanche, Flint Creek, Knox Lee, Lieberman, Welsh and Wilkes). These reservoirs were specifically built to be both the source and receiving water body for the cooling water used at these plants. Assuming negligible loss of water due to evaporation, these facilities “recycle” nearly 100% of the water that they withdraw. Since the cooling lakes are typically large, open bodies of water, they also provide public fishing and recreational boating. Recycled or reused water rates are recorded/estimated for steam electric facilities dependent on surface water as part of the company's GRI reporting effort. |
| The provision of fully-functioning, safely managed WASH services to all workers | 100% | Employees at all of our facilities are provided with access to clean drinking water, sanitary facilities and solid waste management, however, such access is not provided at unmanned facilities, such as our solar farms. Typically, municipal water, well water or bottled water is provided and each of these delivery methods is required to meet safe drinking water |

| | | |
|---|---|---|
| | | requirements. For example, at AEP locations with non-transient non-community water systems, we are required to report water quality (e.g. bacteria and nitrate) as dictated by state and federal drinking water regulations.<br><br>We recognize that climate change can affect access to water. To that end, we have begun an Environmental Justice initiative which reaffirms our commitment to engaging with stakeholders to incorporate environmental and social justice into the management of existing and planned facilities, programs and services. This includes access to appropriate water supplies in the communities in which we operate. |

# W-EU1.2a

**(W-EU1.2a) For your hydropower operations, what proportion of the following water aspects are regularly measured and monitored?**

| | % of sites/facilities/operations measured and monitored | Please explain |
|---|---|---|
| Fulfilment of downstream environmental flows | 100% | All AEP hydroelectric projects are operated in accordance with Federal Energy Regulatory Commission (FERC) licenses, which include requirements for downstream flows. Typically, all AEP facilities are operated as run-of river projects. On average, less than half of the mean annual river flow passes through these projects every year. This difference is due to the fact that at times, only a portion of the river flow goes through the hydroelectric turbines. The remaining water flows over the dam spillways or through lock chambers on navigable rivers. During 2021, over 49 billion cubic meters of water passed through our hydroelectric turbines. |
| Sediment loading | 100% | All AEP hydroelectric projects are operated in accordance with Federal Energy Regulatory Commission (FERC) licenses, which require that sediments be monitored during the relicensing process. In addition, we conduct sediment testing every 10 years at our Mottville project and we |

| | | |
|---|---|---|
| | | recently tested the sediments at our Elkhart project. |
| Other, please specify | 100% | AEP conducts water quality and biological monitoring at its hydroelectric facilities as required by NPDES permits or to meet FERC relicensing requirements. Permit-required monitoring varies between facilities. At our Virginia-based projects, monitoring was limited to parameters such as flow, temperature and pH. In West Virginia, monitoring requirements are more extensive and include the collection of samples for metal testing. At our Smith Mountain and Claytor projects, we perform ongoing monitoring studies for dissolved oxygen, temperature and vegetation. In addition, at the Claytor project, caged mussels were reared in 2020 in partnership with the Virginia Department of Wildlife Resources and were deployed in 2021 in response to a fresh water mussel adaptive management plan. We are also in the process of relicensing the Racine, and Constantine projects. Studies have been completed for the Niagara and Byllesby-Buck projects. Ongoing studies are also implemented at some of our northern hydroelectric projects. For example, downstream water quality monitoring is required at the Mottville project every five years and fish tissue / reservoir sediment monitoring is required every ten years. In addition, surveys for purple loosestrife and Eurasian water milfoil (invasive aquatic plants) are conducted in the Mottville, Constantine and Buchanan reservoirs. |

# W1.2b

**(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?**

| | Volume (megaliters/year) | Comparison with previous reporting year | Please explain |
|---|---|---|---|
| Total withdrawals | 5,907,619 | About the same | Total water withdrawals during 2021, which includes water from the City of Lawton's Publicly Owned Treatment Works (POTW) and groundwater, were about 6% more than those during 2020 due to changes in fleet dispatch, |

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|---|---|---|---|
| | | | plant operation and weather. For year to year comparisons, AEP is defining the thresholds based on peer utility CDP submissions. They are as follows: more than 50% less is 'much lower,' 25%-50% less is 'lower,' plus or minus 25% is 'about the same,' 25%-50% more is 'higher' and greater than 50% more is 'much higher.' |
| Total discharges | 5,690,995 | About the same | Total water discharges during 2021 were about 5% more than those during 2020 due to changes in fleet dispatch and weather. For year to year comparisons, AEP is defining the thresholds as follows: more than 50% less is 'much lower,' 25%-50% less is 'lower,' plus or minus 25% is 'about the same,' 25%-50% more is 'higher' and greater than 50% more is 'much higher.' |
| Total consumption | 222,210 | About the same | Total water consumption during 2021 was about 13% more than during 2020 due to changes in plant operation, fleet dispatch and weather. For year to year comparisons, AEP is defining the thresholds as follows: more than 50% less is 'much lower,' 25%-50% less is 'lower,' plus or minus 25% is 'about the same,' 25%-50% more is 'higher' and greater than 50% more is 'much higher.' While close, the total consumption value is not the simple difference between water withdrawal and water discharges (216,624 MegL/yr). This is due to rainfall events and plant operations that can result in higher discharges, but not affect overall plant water consumption, which is a nominal value based on plant water balance diagrams and actual water withdrawals. |

# W1.2d

**(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.**

| | Withdrawals are from areas with water stress | % withdrawn from areas with water stress | Comparison with previous reporting year | Identification tool | Please explain |
|---|---|---|---|---|---|

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|---|---|---|---|---|---|
| Row 1 | Yes | Less than 1% | Much lower | WRI Aqueduct | The percentage of water withdrawn from areas with water stress was based on steam-electric facilities (excluding hydroelectric facilities) in the Mississippi, Sabine and St Lawrence watersheds that fell within the WRI Aqueduct med-high water risk areas for water quantity. The WRI analysis was modified to use the settings for the electric power industry, which places a weighting of 90+% on water availability (i.e. quantity). Three facilities fell into this category, however, one does not use water and was excluded from the analysis. The remaining two facilities, Dresden and Southwestern, withdrew a combined 5,692 MegL of water during 2021. During 2020, three facilities fell into this category with a combined total water withdrawal of 34,460 MegL, which results in a much lower percentage of water being withdrawn from water stressed areas during 2021. This difference is primarily due to less water use based on the 2020 retirements of the Conesville and Oklaunion facilities. For year to year comparisons, AEP is defining the thresholds as follows: more than 50% less is 'much lower,' 25%-50% less is 'lower,' plus or minus 25% is 'about the same,' 25%-50% more is 'higher' and greater than 50% more is 'much higher.' |

## W1.2h

**(W1.2h) Provide total water withdrawal data by source.**

| | Relevance | Volume (megaliters/year) | Comparison with previous reporting year | Please explain |
|---|---|---|---|---|
| Fresh surface water, including rainwater, water from wetlands, rivers, and lakes | Relevant | 5,902,849 | About the same | There was a 6% increase in the amount of water withdrawn from freshwater sources during 2021, which we consider to be a negligible change. This value is for the entire AEP steam electric fleet, minus our Comanche Plant, which uses water from the City of Lawton's Publicly Owned Treatment Works (POTW) and several groundwater dependent facilities. It is about the same, but slightly higher due to changes in fleet dispatch. For example, even though less water was withdrawn due to the closure of the Conesville Plant, more water was used at several other facilities, including the Amos, Clinch River, Cook, Flint Creek, Pirkey, Welsh and Wilkes facilities, during 2021 than during 2020 which more than offset water withdrawal reductions at other facilities For year to year comparisons, AEP is defining the thresholds as follows: more than 50% less is ‘much lower,’ 25%-50% less is ‘lower,’ plus or minus 25% is ‘about the same,’ 25%-50% more is ‘higher’ and greater than 50% more is ‘much higher.’ |
| Brackish surface water/Seawater | Not relevant | | | AEP does not withdraw surface water from any |

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|---|---|---|---|---|
| | | | | brackish or seawater sources. |
| Groundwater – renewable | Relevant | 3,975 | Lower | Approximately 25% less water was withdrawn from renewable ground water sources during 2021 than during the previous year, which we consider to be lower, as it is equal to a 25% change. It is lower due to changes in fleet dispatch. |
| Groundwater – non-renewable | Not relevant | | | AEP does not use any groundwater from “non-sustainable” sources. |
| Produced/Entrained water | Not relevant | | | AEP does not use any 'produced' or 'entrained' water. |
| Third party sources | Relevant | 795 | Lower | AEP sources water for the Comanche Plant from the City of Lawton Publicly Owned Treatment Works (POTW) and also uses water from municipalities at several other facilities. This combined water use is lower (between 25%-50%) due to changes in weather and facility dispatch. |

# W1.2i

**(W1.2i) Provide total water discharge data by destination.**

| | Relevance | Volume (megaliters/year) | Comparison with previous reporting year | Please explain |
|---|---|---|---|---|
| Fresh surface water | Relevant | 5,690,995 | About the same | There was approximately a 5% increase in the amount of water discharged to freshwater sources during 2021, a difference we consider to be negligible. The discharge value is for the entire AEP steam electric fleet (coal, lignite, gas, nuclear). It is slightly |

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| | | | | higher due to changes in fleet dispatch. For example, less water was discharged due to the closure of the Conesville Plant, but more water was discharged at the Amos, Cook, Flint Creek, Knox Lee, Pirkey, Rockport, Welsh and Wilkes Plants during 2021. For year to year comparisons, AEP is defining the thresholds as follows: more than 50% less is 'much lower,' 25%-50% less is 'lower,' plus or minus 25% is 'about the same,' 25%-50% more is 'higher' and greater than 50% more is 'much higher.' |
| Brackish surface water/seawater | Not relevant | | | AEP does not own or operate any water-dependent generation facilities that are located on brackish or seawater sources of water. |
| Groundwater | Not relevant | | | AEP does not inject wastewater into any groundwater aquifers. |
| Third-party destinations | Not relevant | | | While the disposal of some waste water is handled by AEP contractors, the amount is minimal and not recorded. |

# W1.2j

**(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.**

| | Relevance of treatment level to discharge | Volume (megaliters/year) | Comparison of treated volume with previous reporting year | % of your sites/facilities/operations this volume applies to | Please explain |
|---|---|---|---|---|---|
| Tertiary treatment | Not relevant | | | | As defined by the CDP, tertiary treatment involves |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | additional treatment to remove suspended, colloidal and dissolved constituents (nutrients, heavy metals, inorganic and other contaminants ) remaining after secondary treatment through a number of processes, including granular media filtration or biological nitrification-denitrification. While AEP does operate a biological treatment system at its Mountaineer Plant, it follows primary treatment, not secondary treatment, therefore, we do not define it as tertiary treatment per the CDP definition. |

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|---|---|---|---|---|---|
| Secondary treatment | Relevant | 1,197 | Higher | Less than 1% | One AEP facility (Mountaineer Plant) utilizes secondary treatment to remove metals and metalloids, such as mercury and selenium, through a physical-chemical process, followed by biological treatment. Percent of volume is based on the total volume of effluents treated by AEP. For year-to-year comparisons, AEP is defining the thresholds as follows: more than 50% less is 'much lower,' 25%-50% less is 'lower,' plus or minus 25% is 'about the same,' 25%-50% more is 'higher' and greater than 50% more is 'much |

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|---|---|---|---|---|---|
| | | | | | higher.' Since the amount recorded for 2021 is 26% higher than that recorded for 2020, we consider this amount to be "higher" than the previous year. |
| Primary treatment only | Relevant | 3,176,617 | About the same | 51-60 | The majority of AEP waste waters receive primary treatment before being discharged. This includes the physical removal of suspended solids through settling in treatment ponds or, in the case of facilities that utilize cooling towers, there is sedimentation in the base of the towers. Preliminary treatment does occur at all facility water intake structures through the removal of |

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|---|---|---|---|---|---|
| | | | | | large debris by trash racks, rotating intakes screens, or wedge-wire screens. Percent of volume is based on the total volume of effluents treated by AEP. Since the difference between the amounts recorded for 2021 and 2020 is less than 25%, we consider this amounts to be "about the same." |
| Discharge to the natural environment without treatment | Not relevant | | | | AEP does not discharge any steam electric-related effluents to the natural environment without treatment. |
| Discharge to a third party without treatment | Not relevant | | | | AEP does not discharge any steam electric-related effluents to a third party without treatment. |

| | | | | | |
|---|---|---|---|---|---|
| Other | Relevant | 2,513,181 | About the same | 41-50 | For AEP "other treatment" primarily involves chlorination for biofouling control within the plant systems, but not for disinfection of the discharge. Discharges of cooling water must adhere to strict state and federal thermal limits necessary to assure the protection and propagation of the waterbody's balanced, indigenous population of shellfish, fish and wildlife. As a result, plant operations and treatment methods are adjusted as necessary to ensure that these standards are met prior to any discharges. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | This mainly applies to our once-thru cooling water discharges, primarily to lakes (Lake Michigan for Cook Plant and cooling lakes for Flint Creek, Knox Lee, Lieberman, Pirkey, Welsh and Wilkes Plants). Percent of volume is based on the total volume of effluents treated by AEP. Since the difference between the amounts recorded for 2021 and 2020 is less than 25%, we consider this amounts to be "about the same." |

# W1.3

**(W1.3) Provide a figure for your organization's total water withdrawal efficiency.**

| | Revenue | Total water withdrawal volume (megaliters) | Total water withdrawal efficiency | Anticipated forward trend |
|---|---|---|---|---|
| Row 1 | 16,800,000,000 | 5,569,106 | 3,016.6421684199 | Revenue is reported in USD. As the company transitions to a less water- |

| | | | | |
|---|---|---|---|---|
| | | | | dependent generation profile, we expect our total water withdrawal efficiency value to increase over time. |

# W-EU1.3

**(W-EU1.3) Do you calculate water intensity for your electricity generation activities?**

Yes

# W-EU1.3a

**(W-EU1.3a) Provide the following intensity information associated with your electricity generation activities.**

| Water intensity value (m3) | Numerator: water aspect | Denominator | Comparison with previous reporting year | Please explain |
|---|---|---|---|---|
| 78.5 | Total water withdrawals | MWh | About the same | Value is for steam electric facilities owned and operated by AEP and regulated by local governing bodies (i.e. Utility Commission) (m3/netMWh). It is 5% lower or about the same as our 2020 reported value of 82.74 m3/net MWh. |
| 2.95 | Total water consumption | MWh | About the same | Value is for steam electric facilities owned and operated by AEP and regulated by local governing bodies (m3/ MWh). It is 2% higher or about the same as our 2020 value of 2.89 m3/net MWh. This was likely due to imbedded water use regardless of whether or not a unit is generating electricity. |
| 75 | Total water withdrawals | Other, please specify<br>Total net MWh for the entire AEP generation fleet, including steam electric, wind, solar and hydroelectric | | Value is for the entire AEP generation fleet which is regulated by local governing bodies and includes steam electric, wind, solar and hydroelectric (m3/net MWh). This is 4% higher or about the same as the value we reported for 2020. This was likely due to imbedded water use regardless of whether or not a unit is generating |

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|---|---|---|---|---|
| | | | | electricity. Despite this slightly higher intensity value for 2021, we anticipate that the water intensity of our generation fleet will become lower as we continue to expand our wind and solar generation fleet. |

# W1.4

**(W1.4) Do you engage with your value chain on water-related issues?**

Yes, our suppliers

# W1.4a

**(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?**

**Row 1**

**% of suppliers by number**

26-50

**% of total procurement spend**

Unknown

**Rationale for this coverage**

Within our western footprint, AEP has a relationship with each of our contracted water suppliers. For many, it is a close relationship to address multiple water issues within the water basin of concern, in particular, water quantity and quality. We have a relationship with the Corps of Engineers at the project offices for Lake O' the Pines and Millwood, as well as the Little Rock District and the Fort Worth District. Our Pirkey, Turk, Welsh and Wilkes facilities are dependent on these water sources. We are also active in regional water and flood planning and employees serve on the statewide Water Conservation Advisory Council. We also periodically meet with the Caddo Lake Institute. Except for the City of Lawton, OK, most of these engagements concern water quantity.

With regards to water quality, AEP engages with the City of Lawton in Oklahoma, which supplies water to the AEP Comanche Plant through its municipal POTW. In the past, AEP has had to discuss the quality of this water to ensure its suitability for use in a power plant. We also engage with the City of Gentry, which discharges its treated wastewater into Flint Creek's primary ash pond. This is done in lieu of directly discharging to Little Flint Creek, however, this wastewater can cause problems due to nutrients that can produce algae blooms, creating compliance problems for AEP. The discharge of the ash pond is directed to SWEPCO Lake, which is the cooling pond for the plant. Being a once-through cooled system, the water in the lake, and consequently the water discharged from the ponds, is recycled multiple times, reused within the plant,

and then discharged again into the lake. It is therefore imperative that this water be suitable for use.

The percent of procurement spend for our water supplies has not been determined as this information is not tracked by the company.

**Impact of the engagement and measures of success**

These relationships are very important in maintaining our access to sufficient quantities of water. For example, we have been granted an intra-basin water transfer permit by the State of Arkansas for the transfer of water to SWEPCO Lake, which supplies water to the AEP Flint Creek Plant. Without this permit, we could not generate electricity at this facility. Another example involves the Northeast Texas Municipal Water District, which has been granted the water rights in the conservation pool by the State of Texas in Lake O' the Pines, which is a Corps facility. The AEP Pirkey, Welsh and Wilkes Plants are dependent on water from the Lake O' the Pines and we have been granted an easement from the Corps for the water withdrawals. Due to a concern associated with our Wilkes Plant being able to withdraw water when the Lake O' the Pines is down, this engagement is important. Our Welsh Plant does not currently have this problem at current water elevations, but if the lake had more water pumped or removed from it, water withdrawals at the Welsh intake would be at some risk. Therefore, our engagement with Water District and the Corps have been invaluable in maintaining facility operations.

We have also met with the City of Lawton in the past to emphasize that the quality of the water which they supply from their POTW to the AEP Comanche Plant must meet certain metrics. These include levels of fecal and E. coliform, which can present a health hazard to our employees. We recently proposed a water contract with the City where payment was contingent upon their compliance. The City was agreeable to finalizing the contract and is working to ensure a continued supply of good quality water. With regards to the Flint Creek Plant and the City of Gentry, AEP is planning to initiate a sampling program to determine if the city's effluent contains elevated levels of metals, specifically cyanide and mercury, which could affect AEP's compliance program. AEP has had discussions with the city about these potential problems and looks forward to continued cooperation.

**Comment**

# W1.4b

**(W1.4b) Provide details of any other water-related supplier engagement activity.**

**Type of engagement**

Onboarding & compliance

**Details of engagement**

Requirement to adhere to our code of conduct regarding water stewardship and management

### % of suppliers by number

76-100

### % of total procurement spend

Unknown

### Rationale for the coverage of your engagement

AEP values its relationships with its suppliers, energy providers and other organizations looking to do business with us and we want to be as transparent as possible in our expectations of them. AEP's Supplier Code of Conduct serves as a guide for suppliers to uphold our values around safety and health, environmental performance, ethics and compliance, and many other social issues. It is important that AEP do business with environmentally responsible companies. Our stakeholders expect this, as do the communities in which we serve. AEP is fully committed to being a good steward of the environment and requires the following as part of its Supplier Code of Conduct:
1. The efficient use of resources and respect for the environment. Suppliers are encouraged to collaborate with AEP to eliminate waste and cost from our supply chain. Suppliers will strive to reduce emissions and waste, and use energy and natural resources efficiently.
2. Suppliers must comply with all applicable environmental laws, regulations and standards and demonstrate they are doing so.

### Impact of the engagement and measures of success

AEP implemented its Supplier Code of Conduct in 2020 that includes environmental compliance. This was communicated directly to all suppliers and is an addendum to the terms and conditions of all contracts. We also insist on environmental compliance within our fuel supply chain. For example, while not specific to water, AEP has language in its master coal agreements to ensure environmental compliance among its coal suppliers. The language requires, "Compliance with Applicable Law – Seller and Buyer shall make good faith efforts to comply with the provisions of all federal, state, local, and other governmental laws and any applicable orders, rules and/or regulations, or any amendments or supplements thereto, which have been, or may at any time be, issued by a governmental agency." With regards to our gas suppliers, AEP does not specifically engage them on water related issues, however, they are heavily vetted and scrutinized by the company's Credit Risk organization and, for the most part, consist of large oil/gas producers, large financial institutions and other utilities. We do not directly engage with the producers of the natural gas that we use, but instead, we buy natural gas in the commodities market and negotiate with pipeline companies to deliver the gas, who are not dependent on water for their operations. Regardless, an unfavorable environmental record would impact their financial statements and AEP's decision to continue to work with them. Having these types of engagements with our fuel suppliers ensures our access to a reliable, continuous supply of coal and natural gas.

With regard to the AEP River Transportation organization and its water-related value

chain, we belong to and support, two organizations, 1) the American Waterways Operators or AWO, and 2) the Waterways Council, Inc., or WCI. The AWO collaborates with the Coast Guard on our industry's rules and regulations. We are now an "inspected" industry and for our fleet of five boats, we have four Certificate of Inspections and received the last one later in 2021. The WCI collaborates with the Army Corps of Engineers and seeks funding for infrastructure, such as locks and dams. The AEP River Transportation organization always strives for environmental excellence (i.e. no spills) and follows all applicable rules and regulations. As of July 6, 2022, it has gone 1131 days since its last fuel spill.

**Comment**

# W2. Business impacts

## W2.1

**(W2.1) Has your organization experienced any detrimental water-related impacts?**

Yes

## W2.1a

**(W2.1a) Describe the water-related detrimental impacts experienced by your organization, your response, and the total financial impact.**

**Country/Area & River basin**

United States of America
Mississippi River

**Type of impact driver & Primary impact driver**

Regulatory
Regulatory uncertainty

**Primary impact**

Increased cost of capital

**Description of impact**

EPA's Steam Electric Effluent Guidelines or ELG rule for generating facilities establishes limits for FGD wastewater, fly ash and bottom ash transport water and flue gas mercury control wastewater, which are to be implemented through each facility's wastewater discharge permit. A revision to the ELG rule, published in October 2020, established additional options for reusing and discharging small volumes of bottom ash transport water, provides an exception for retiring units and extended the compliance deadline to a date as soon as possible beginning one year after the rule was published but no later than December 2025. AEP management has assessed technology additions and

retrofits necessary to comply with the rule and the impacts of EPA's recent actions on facilities' wastewater discharge permitting for FGD wastewater and bottom ash transport water. EPA has announced its intention to reconsider the 2020 rule and to further revise limits applicable to discharges of landfill and impoundment leachate. A proposed rule is expected in late 2022. Management cannot predict whether EPA will actually finalize further revisions or what such revisions might be, but will continue to monitor this issue and will participate in further rulemaking activities as they arise. The new rulemaking could result in new technology requirements and higher costs for AEP.

### Primary response

Comply with local regulatory requirements

### Total financial impact

550,000,000

### Description of response

AEP has assessed technology additions and retrofits to comply with impacts of EPA's recent actions affecting FGD wastewater and bottom ash transport water. Permit modifications for affected facilities were filed in January 2021 that reflect the outcome of that assessment. Based on the retirement exception, AEP filed Notices of Planned Participation for four facilities (Northeastern Unit 3, Rockport Units 1, 2, Pirkey Unit 1, and Welsh Units 1, 3) which will allow them to operate without modification until their retirement dates (Northeastern–2026, Rockport–2028, Pirkey- 2023, and Welsh–2028). AEP continues to refine the cost estimates of complying with these and other environmental requirements. AEP's future investment to meet these existing and other proposed requirements for fossil generation ranges from approximately $325 million to $550 million through 2028. In anticipation of EPA's ELG rule proposal this fall, AEP has been working with the Utility Water Act Group and the Electric Power Research Institute to assess available technologies associated with potential new provisions. If AEP decides to file comments on the proposed rule, it will need to support its objectives and positions with appropriate legal and technical arguments. See page 26 in AEP 2021 Annual Report Proxy Statement for more information: https://www.aep.com/assets/docs/investors/AnnualReportsProxies/docs/21annrep/2022ProxyAppendixA.pdf

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### Country/Area & River basin

United States of America
Mississippi River

### Type of impact driver & Primary impact driver

Regulatory
Regulatory uncertainty

### Primary impact

Increased cost of capital

### Description of impact

EPA's Coal Combustion Residuals or CCR Rule regulates the disposal and beneficial re-use of coal combustion residuals, including fly ash and bottom ash generated at coal-fired electric generating units. The rule requires certain standards for location, groundwater monitoring and dam stability to be met at landfills and certain surface impoundments at operating facilities. If existing disposal facilities cannot meet these standards, they will be required to close. In August 2020, EPA revised the CCR rule to include a requirement that unlined CCR storage ponds cease operations and initiate closure by April 11, 2021. The revised rule provides two options for seeking an extension of that date. AEP filed extension requests for seven facilities, but as of December 31, 2021, EPA has not acted upon those requests. Because AEP currently uses surface impoundments and landfills to manage CCR materials at generating facilities, significant costs are being incurred to upgrade or close and replace these existing facilities and conduct any required remedial actions.

### Primary response

Comply with local regulatory requirements

### Total financial impact

372,000,000

### Description of response

AEP filed applications for additional time to develop alternative disposal capacity at five facilities: Amos, Flint Creek, Mitchell, Mountaineer and Rockport. In December 2020, APCo filed requests with the Virginia SCC and WVPSC to obtain regulatory approvals necessary to implement compliance plans and seek recovery of the estimated $240 million investment for the Amos and Mountaineer plants. In December 2020 and February 2021, WPCo and KPCo filed requests with the WVPSC and KPSC, respectively, to obtain regulatory approvals necessary to implement compliance plans and seek recovery of the estimated $132 million investment for the Mitchell Plant. Within those requests, WPCo and KPCo also filed a $25 million alternative with the WVPSC and KPSC, respectively, which would allow the Mitchell Plant to continue operating only through 2028. The second option is a retirement option, which provides a generating facility an extended operating time without developing alternative CCR disposal. Under the retirement option, a generating facility would have until October 17, 2023 to cease operation and to close CCR storage ponds 40 acres or less in size, or through October 17, 2028 for facilities with CCR storage ponds greater than 40 acres in size. Pursuant to this option, AEP informed the Federal EPA of its intent to retire the Pirkey Power Plant and cease using coal at the Welsh Plant. For more information, see: https://www.aep.com/assets/docs/investors/filings/docs/AEP_10K_2021.pdf

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### Country/Area & River basin

United States of America
Sabine River

### Type of impact driver & Primary impact driver

Regulatory

Regulation of discharge quality/volumes

**Primary impact**

Increased compliance costs

**Description of impact**

Due to the development of acid mine drainage in a few drainages near our Dolet Hills lignite mine, the resulting low pH water must be treated before it can be released. A company seeking to obtain a coal mining permit must post a reclamation bond to ensure that the regulatory authority has sufficient funds to reclaim the site in the case the permittee fails to complete the approved reclamation plan. After a mining company has met all the reclamation requirements of the approved permit and regulatory program, the regulatory authority may release the reclamation bond. However, due to the long-term nature of the problem, we have been unable to obtain bond releases for the affected properties, therefore, we must secure extended leases or purchase the affected properties and assume the associated water treatment costs. Treatment could be required for up to 99 years.

**Primary response**

Comply with local regulatory requirements

**Total financial impact**

12,200,000

**Description of response**

Costs for water treatment are estimated to be $8 million over a 99 year period, while those to obtain additional properties or extend leases are $4.2 million.

## W2.2

**(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?**

No

# W3. Procedures

## W-EU3.1

**(W-EU3.1) How does your organization identify and classify potential water pollutants associated with your business activities in the electric utilities sector that could have a detrimental impact on water ecosystems or human health?**

AEP must comply with both water quality-based and steam electric guideline effluent limits as they are implemented in NPDES permits. When applying for such permits, the company completes an NPDES Form 2C application, which includes an assessment of the flows, source of pollution and treatment technologies; production and improvements to reduce pollutants in the discharge; intake and effluent characteristics; potential discharges not covered by the analysis; biological toxicity testing data; and contract analysis information. Working with the

appropriate state agency, AEP determines if there will be a reasonable potential to exceed any water quality standards. These standards are for the protection of both aquatic life and human health. Typically, metals and metalloids, such as arsenic, copper, mercury and selenium, are the potential pollutants of most concern. Thermal discharges are evaluated and conform to the requirements of section 316(a) of the Clean Water Act, which ensures that there is a balanced indigenous community of aquatic organisms protected and maintained within the receiving body of water. The company also complies with all applicable water-related regulatory programs to prevent spills and subsequent impacts. In addition, AEP participates in voluntary efforts to protect certain watersheds, such as the Caddo Lake watershed, a Ramsar Convention designated wetland area. The Caddo Lake Ramsar wetland area is one of only 26 such sites in the United States. In Arkansas, AEP is involved in the Illinois River Watershed Partnership, which has increased its efforts to plant trees and bushes to stabilize riverbanks. In 2020, the AEP Foundation presented the Partnership with a $200,000 grant to support environmental education through 2021. In 2020, AEP joined the Electric Power Research Institute's Ohio River Interest Group. This will enable AEP to remain informed about Ohio River issues, such as invasive species, algal blooms, fish passage and endangered species management. AEP also conducts water quality and biological monitoring at its hydroelectric facilities as required by NPDES permits or to meet FERC relicensing requirements. At our Virginia and Ohio-based projects, monitoring targets parameters such as flow, temperature and pH. In West Virginia, monitoring requirements are more extensive and include the collection of samples for metal testing. At our Smith Mountain and Claytor projects, we perform on-going monitoring for dissolved oxygen and temperature. In addition, at the Claytor project, caged mussels have been reared and deployed in response to a fresh water mussel adaptive management plan. On-going studies are also implemented at some of our northern hydroelectric projects. For example, downstream water quality monitoring is required at the Mottville project every five years and fish tissue / reservoir sediment monitoring is required every ten years.

## W-EU3.1a

**(W-EU3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants associated with your activities in the electric utilities sector on water ecosystems or human health.**

| Potential water pollutant | Description of water pollutant and potential impacts | Management procedures | Please explain |
|---|---|---|---|
| Thermal pollution | AEP operates and owns two steam electric units at its Cook Nuclear Plant that utilize once-through cooling of heated condenser water formed by waste heat in the steam cycle. The potential impacts of heated cooling water on biodiversity range from insignificant to | Compliance with effluent quality standards | The potential ecological impacts of this heated water are addressed in the facility NPDES permit. The plant has an approved Clean Water Act Section 316(a) variance, which signifies that a state regulatory agency has concluded that a balanced, indigenous biological |

| | | | |
|---|---|---|---|
| | temporarily significant, depending on ambient temperature conditions. During extreme drought events, the heated water can cause a temporary displacement of thermally-sensitive fish species in the immediate area where the thermal discharge mixes with the source water body. | | community will be maintained in the source waterbody despite the discharge of cooling water at temperatures in excess of applicable water quality temperature criteria. Routinely, state agency requires that AEP provide a re-justification of this finding, based on recent water quality and biological studies. |
| Coal combustion residuals | Two types of ash are produced during the combustion of coal: bottom ash and fly ash. After collection, the fly ash and bottom ash may be managed separately or together in landfills or in wet surface impoundments. If managed in surface impoundments, water is used to sluice the ash to these ponds. Fly ash and bottom ash sluices typically contain heavy metals and inorganic constituents. If present in excessive amounts, these can be harmful to aquatic life or human health. | Compliance with effluent quality standards<br>Community/stakeholder engagement | Bottom ash and fly ash ponds are used to treat ash sluice water and are primarily settling basins that allow ash constituents and suspended solids to settle out before the transport water reaches the discharge point or is recycled. Some iron co-precipitation also occurs in these ponds, aiding with the removal of pollutants such as arsenic. The control of pond pH also helps to precipitate out metals, such as copper. In some cases, aeration-mixing or treatment chemicals are used to maximize pond effectiveness. AEP no longer operates any fly ash ponds as all fly ash management has been converted to "dry" systems. In response to proposed and final regulations governing the disposal and beneficial re-use of fly ash and bottom ash created from coal-fired generating units, AEP is considering plans to upgrade or close and replace these existing facilities and conduct any required remedial actions. |

| | | | |
|---|---|---|---|
| | | | The operation of a wet FGD system typically results in the generation of a chloride purge stream, which must be treated to manage pH and solids levels. The treatment process is based on three broad principles:<br>• removal of the bulk of the suspended solids in a primary clarification step,<br>• conversion of constituents into solid precipitates, and<br>• removal of solids remaining after primary clarification, including precipitated solids. Once treated, this effluent is generally directed to a bottom ash pond for further settling before final discharge to a receiving/source water body.<br><br>All AEP facilities that discharge such effluents have National Pollutant Discharge Elimination System (NPDES) permits that have been issued by the appropriate state agencies. These permits govern the discharge of the treated wastewaters and ensure compliance with all applicable water quality standards. The Clean Water Act requires facilities that discharge process waste waters into receiving waters to control these discharges according to technology-based effluent guidelines and water quality-based effluent limits specified in NPDES permits.<br><br>The Steam Electric Effluent Limitation Guidelines (ELGs) |

| | | | |
|---|---|---|---|
| | | | specify limits for various pollutants found in power plant waste waters. These limits are based on the available and economically achievable technologies that can be implemented at steam electric facilities. Monitoring is conducted at each AEP facility to ensure that the discharges comply with these limits. |

# W3.3

**(W3.3) Does your organization undertake a water-related risk assessment?**

Yes, water-related risks are assessed

# W3.3a

**(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.**

**Value chain stage**

Direct operations

**Coverage**

Full

**Risk assessment procedure**

Water risks are assessed as a standalone issue

**Frequency of assessment**

Annually

**How far into the future are risks considered?**

1 to 3 years

**Type of tools and methods used**

Databases

**Tools and methods used**

Regional government databases

**Contextual issues considered**

Water availability at a basin/catchment level
Water quality at a basin/catchment level

**Stakeholders considered**

Customers
Employees
Investors
Local communities
NGOs
Regulators
Other water users at the basin/catchment level

**Comment**

AEP reports extensively on its water use, consumption and associated risks and mitigation efforts in its annual Corporate Sustainability and GRI reports. Data on water use is collected on a per-plant basis in response to the annual FERC and GRI reporting questions. AEP also uses the WRI Aqueduct Tool to annually assess water stress among its steam-electric facilities in the Mississippi, Sabine and St Lawrence watersheds. The WRI analysis is modified to use the settings for the electric power industry, which places a weighting of 90+% on water availability (i.e. quantity). Discharge data is collected from NPDES discharge monitoring reports, which are also compiled on a per plant basis. State agency or industry groups periodically forecast water demands for their states that may look ahead as far as 50 years.

# W3.3b

**(W3.3b) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.**

AEP uses a variety of methods and tools to identify and assess water-related risks, issues and affected stakeholders. We are committed to engaging with our stakeholders to enable the generation of low-carbon, affordable, resilient and reliable electricity. Supply chain resilience and management is a topic of engagement with our customers, investors, and suppliers. This is accomplished through social media, one-on-one outreach, webinars, conference participation, meetings with ESG-focused investors, investor reports, supplier surveys, issuing our Supplier Code of Conduct, and through ESG-related memberships, among many other engagements.

At a more granular level, this is also done for all steam-electric facilities at all levels of supply chain management. Long-term issues for water-dependent facilities are considered as illustrated by their retirement dates, which are dependent upon water-related regulations. Decisions are made on the basis of risk-based technology option evaluations (RBTOs), which assess anticipated compliance options and costs. We work to ensure the implementation of the most efficient and cost-effective water treatment strategies and technologies. At the operational level, we implement a continuous improvement process to continually look for improvements.

With regards to sustainable water use, climate change has been identified as a top issue of engagement with many of our stakeholders. To that end, AEP recently completed a year-long effort to analyze the risks to our company, as well as to our infrastructure and people, from a changing climate. The results of this analysis can be found in our report, "Powering Forward to

Net-Zero, AEP's Climate Impact Analysis."
See: https://aepsustainability.com/performance/report/docs/AEPs-Climate-Impact-Analysis-2021.pdf Key takeaways from this analysis are as follows:
· Investments to harden and build resilience and reliability into the system are essential and have a positive impact.
· Weather extremes are becoming noticeably more severe.
· AEP's geographic diversity provides a hedge against physical extremes in many climate-related variables because the impacts tend to be local or regional and can vary greatly by location.
· An analysis of heavy rain events at six AEP coal-fueled power plants showed that subtle changes are occurring over time and that weather extremes, like Hurricanes Harvey and Laura, may be more intense.

The project included three focus areas, 1) transition risk, 2) physical risks and opportunities, and 3) the socioeconomic aspect of coal plant retirements. The work involved a diverse, cross-functional team, including engineers; resource planners; meteorologists; and experts in generation, transmission, distribution, legal, air quality and environmental, along with enterprise risk and insurance, investor relations, economic development, customer solutions, and corporate sustainability, among others. AEP's internal team conducted the analysis and modeled potential scenarios. We also consulted with external resources, reports and studies, and climate experts to further inform our analysis. We evaluated the advancement of new and emerging technologies; public policy and regulatory changes that could influence our actions; the pace of transition; and risk mitigation strategies to make the electric grid more resilient. We conducted desk research, benchmarking and interviews to frame our approach, capture legacy knowledge and identify best practices and potential new business opportunities. This report is aligned with the Task Force for Climate-related Financial Disclosure (TCFD) framework, which is the preferred approach for reporting on climate risk management. We also referenced the Fourth National Climate Assessment, among other climate-related documents.

AEP also engages in the legislative and regulatory process associated with the U.S. Congress, the U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (FWS), the Federal Energy Regulatory Commission (FERC), state legislatures and regulatory agencies, among others. We do this to mitigate our risk exposure and to help us achieve our business objectives. AEP is also a member of industry organizations and trade associations (e.g. Utility Water Act Group, Edison Electric Institute) which provide a venue for reviewing potential new water-related regulatory and legislative programs. AEP is also involved with the Ohio River Valley Sanitation Commission's (ORSANCO) through our memberships with the Ohio Electric Utility Institute and the Electric Power Research Institute's Ohio River Interest Group, which addresses water quality in the Ohio River. AEP also participates in regional water planning organizations that cover western and northeastern Texas, Arkansas, and the Illinois River watershed. Additional information on how AEP identifies, assesses and responds to water-related risks can be found in the company's 10K and Corporate Sustainability Reports.

# W4. Risks and opportunities

## W4.1

**(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes, both in direct operations and the rest of our value chain

## W4.1a

**(W4.1a) How does your organization define substantive financial or strategic impact on your business?**

AEP's common stock is publicly-traded and the company is subject to the jurisdiction of the Securities and Exchange Commission (SEC). In addition to its regularly filed financial reports, AEP is required to advise the SEC and the public within four business days of any event or development which would have a material impact on the companies. Generally these levels range between 5 to 15 percent of certain financial measures (revenues, assets, or income) based on the most recent audited financial statements for the affected company. Developments that have an impact equal to or in excess of the applicable threshold must be reported within four days to the SEC and publicly announced.

## W4.1b

**(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?**

| | Total number of facilities exposed to water risk | % company-wide facilities this represents | Comment |
|---|---|---|---|
| Row 1 | 10 | 26-50 | Ten steam electric generation facilities (coal, lignite, gas) have been identified for the period of Jan 1 to Dec 31, 2021 as having a medium to high overall water risk as per the WRI Aqueduct tool or due to exposure to water-related regulatory compliance programs (Steam Electric Guidelines [ELG] and Coal Combustion Residual [CCR] rules). This represents 42% of our steam electric fleet or 17% of all generation facilities operated by AEP (steam electric, hydro, wind and solar) as calculated on the basis of the number of owned and operated facilities. |

# W4.1c

**(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?**

### Country/Area & River basin

United States of America
Mississippi River

### Number of facilities exposed to water risk

2

### % company-wide facilities this represents

1-25

### % company's annual electricity generation that could be affected by these facilities

1-25

### % company's total global revenue that could be affected

Less than 1%

### Comment

This response is based on the number of steam-electric facilities utilizing surface water and groundwater withdrawals (excludes renewable facilities) in the Mississippi River watershed that fall within the WRI Aqueduct med-high water risk areas. These are the Dresden and Southwestern Plants. The percentage of company-wide facilities and annual electricity generation that could be affected is based on the AEP steam electric fleet (excludes wind, solar and hydroelectric). The percent of total global revenue that could be affected is assumed to be less than 1%. In previous years, the Weleetka Plant had been listed, however, it was assumed that ground water was used to generate electricity. The Weleetka facility does not use surface water or ground water, therefore, it will no longer be assessed and included in this report.

### Country/Area & River basin

United States of America
Mississippi River

### Number of facilities exposed to water risk

7

### % company-wide facilities this represents

26-50

### % company's annual electricity generation that could be affected by these facilities

51-75

### % company's total global revenue that could be affected

Unknown

### Comment

AEP owns and operates seven steam electric generation facilities in the Mississippi River watershed with the potential to be impacted by the Steam Electric Effluent Guidelines (ELGs) and current Coal Combustion Residual (CCR) regulations. The CCR rule established new requirements for how coal ash – the material that is left over after coal is burned to make electricity – is stored at our power plants. While we've previously monitored groundwater at many of our coal ash storage sites, the CCR rule created new requirements to install more wells and test for additional substances at coal-fired power plants. We completed the first phase of testing and did additional monitoring and evaluations during 2020. All of our activities related to the CCR requirements are posted to a public website -- https://www.aep.com/environment/ccr. The percentage of company-wide facilities and annual electricity generation that could be affected by these two regulations is based on the 24 steam electric facilities owned and operated by AEP during 2021 and net MWH generation during the same year.

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### Country/Area & River basin

United States of America
Sabine River

### Number of facilities exposed to water risk

1

### % company-wide facilities this represents

1-25

### % company's annual electricity generation that could be affected by these facilities

1-25

### % company's total global revenue that could be affected

Less than 1%

### Comment

AEP owns and operates one steam electric generation facility in the Sabine River watershed (Pirkey Plant) with the potential to be impacted by the Steam Electric Effluent Guidelines (ELGs), as well as EPA's Coal Combustion Residuals (CCR) Rule. The percentage of company-wide facilities and annual electricity generation that could be affected is based on the 24 steam electric facilities operated by AEP during 2021.

# W4.2

**(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.**

### Country/Area & River basin

United States of America
Mississippi River

### Type of risk & Primary risk driver

Acute physical
Flood (coastal, fluvial, pluvial, groundwater)

### Primary potential impact

Increased operating costs

### Company-specific description

AEP is subject to physical and substantive financial risks associated with climate change. For example, the inability to access appropriate amounts of water to produce electricity could create a future business risk. Physical risks to these facilities from climate change may include changes in precipitation and extreme weather events, including severe drought, storms and floods. Our WRI risk assessment, which was weighted to the electric utility industry, revealed that two AEP facilities, Dresden and Southwestern, are subject to medium to high risk with regards to access to sufficient quantities of water. While neither facility has experienced issues due to drought, the risk still exists. That same analysis, when not weighted to the industry but performed as a "baseline" assessment, revealed a medium to high risk for flooding at two AEP facilities (Arsenal Hill and Cook Plant). Neither facility has experienced flood-related issues, but due to the risk of lake flooding and seiche events (changes in water levels due to strong, sustained winds) at the Cook Nuclear Plant, contingency plans have been put in place to ensure adequate protection of all facilities in the event of a flood.

Severe weather can also impact AEP's service territories, primarily when thunderstorms, tornadoes, hurricanes, fires, floods and snow or ice storms occur. To understand the risk of storm surge and flooding along coastal Texas, we overlaid our substations in the Corpus Christi area over a storm surge map using the Sea, Lake and Overland Surges from Hurricanes (SLOSH) model developed by the National Weather Service (NWS) to estimate storm surge heights. We modeled how a Category 4 hurricane creates storm surge in this area. The exercise indicated four substations vulnerable to storm surge and flooding in a Category 4 hurricane. An additional review of existing AEP stations conducted during 2020, identified nearly 260 substations located within a 100-year flood plain.

### Timeframe

Current up to one year

### Magnitude of potential impact

Medium-high

### Likelihood

More likely than not

### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

### Potential financial impact figure (currency)

14,400,000,000

### Potential financial impact figure - minimum (currency)

### Potential financial impact figure - maximum (currency)

### Explanation of financial impact

Extreme weather conditions in general require more system backup, adding to costs, and can contribute to increased system stress, including service interruptions. Weather conditions outside of the AEP service territory could also have an impact on revenues. AEP buys and sells electricity depending upon system needs and market opportunities. Extreme weather conditions creating high energy demand on AEP's own and/or other systems may raise electricity prices as AEP buys short-term energy to serve AEP's own system, which would increase the cost of energy AEP provides to customers. Changes in precipitation resulting in droughts, water shortages or floods could adversely affect operations, principally the fossil fuel generating units. A negative impact to water supplies due to long-term drought conditions or severe flooding could adversely impact AEP's ability to provide electricity to customers, as well as increase the price they pay for energy. The availability, quantity and quality of water is highly dependent on weather and the environment. When these are out of balance, there can be operational risks for AEP. For example, an analysis of rainfall trends in northeast Texas shows that heavy rainfall events have increased the average annual rainfall amount over the past 20 years. Another analysis of rainfall trends over the past 20 years in Huntington, West Virginia, shows an increase in annual precipitation amounts and supports research claims that heavy rainfall events are increasing in the Ohio Valley. To the extent climate change impacts a region's economic health, it may also impact revenues. AEP's financial performance is tied to the health of the regional economies AEP serves. While the costs of these impacts are not readily available, AEP will invest $14.4 billion, or approximately 50% of transmission capital investment, from 2022 through 2026, to modernize the transmission grid and enhance reliability and resilience. This investment will help mitigate the impacts described above.

### Primary response to risk

Increase capital expenditure

### Description of response

AEP will be taking many actions to mitigate the effects of weather-related flooding. For example, we will be monitoring the evolution of floodplain maps due to climate change and are prioritizing higher risk substations for remedial action, as the cost of moving all of them in the near term is prohibitive. In the future, the location of new facilities will take into consideration elevation and road access during flood conditions, with the intent of locating outside of areas most vulnerable to severe flooding. We have also developed a process for prioritizing mitigation strategies for at-risk facilities.

AEP has also participated in research with the Electric Power Research Institute to develop, test and deploy efficient, advanced cooling technologies. It has also examined the benefits that AEP can and has realized while using alternate water supplies or management practices at the Comanche, Oklaunion, Pirkey, and Turk Plants. The economic and regulatory value of water diversions at Oklaunion, now retired but one of the facilities listed in a prior WRI Aqueduct analysis as subject to water stress, was confirmed by the EPRI analysis.

### Cost of response

14,400,000,000

### Explanation of cost of response

From 2022 through 2026, AEP plans to invest $38 billion in capital with an emphasis on transmission, distribution and regulated renewable energy. Of this, AEP plans to invest $14.4 billion, or approximately 50% of transmission capital investment, to modernize the transmission grid and enhance reliability and resilience.

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### Country/Area & River basin

United States of America
Mississippi River

### Type of risk & Primary risk driver

Regulatory
Regulation of discharge quality/volumes

### Primary potential impact

Increased compliance costs

### Company-specific description

EPA's ELG rule for generating facilities establishes limits for FGD wastewater, fly ash and bottom ash transport water and flue gas mercury control wastewater, which are to be implemented through each facility's wastewater discharge permit. A revision to the ELG rule, published in October 2020, establishes additional options for reusing and discharging small volumes of bottom ash transport water, provides an exception for retiring units and extends the compliance deadline to a date as soon as possible beginning one year after the rule was published but no later than December 2025. AEP management has assessed technology additions and retrofits needed to comply with the

rule and the impacts of EPA's recent actions on facilities' wastewater discharge permitting for FGD wastewater and bottom ash transport water. EPA has announced its intention to reconsider the 2020 rule and to further revise limits applicable to discharges of landfill and impoundment leachate. A proposed rule is expected in late 2022. Management cannot predict whether EPA will actually finalize further revisions or what such revisions might be, but will continue to monitor this issue and will participate in further rulemaking activities as they arise. The new rulemaking could result in new technology requirements and higher costs for AEP.

EPA's Coal Combustion Residuals or CCR Rule regulates the disposal and beneficial re-use of coal combustion residuals, including fly ash and bottom ash generated at coal-fired electric generating units. The rule requires certain standards for location, groundwater monitoring and dam stability to be met at landfills and certain surface impoundments at operating facilities. If existing disposal facilities cannot meet these standards, they will be required to close. In August 2020, EPA revised the CCR rule to include a requirement that unlined CCR storage ponds cease operations and initiate closure by April 11, 2021. The revised rule provides two options for seeking an extension of that date. AEP filed extension requests for seven facilities, but as of December 31, 2021, EPA has not acted upon those requests. Because AEP currently uses surface impoundments and landfills to manage CCR materials at generating facilities, significant costs are being incurred to upgrade or close and replace these existing facilities and conduct any required remedial actions.

**Timeframe**

4-6 years

**Magnitude of potential impact**

High

**Likelihood**

Virtually certain

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

**Potential financial impact figure - minimum (currency)**

325,000,000

**Potential financial impact figure - maximum (currency)**

550,000,000

**Explanation of financial impact**

AEP management continues to refine the cost estimates of complying with air and water quality standards and other impacts of environmental proposals. The estimated financial impacts will change depending on the timing of the new requirements and whether or not EPA provides flexibility in the final rules. These cost estimates will also change

based on: (a) the states' implementation of these regulatory programs, (b) additional rulemaking activities in response to court decisions, (c) the actual performance of the pollution control technologies installed on the units, (d) changes in costs for new pollution controls, (e) new generating technology developments, (f) total MWs of capacity retired, replaced or sold, including the type and amount of such replacement capacity and (g) other factors. Based upon management estimates, AEP's future investment to meet these existing and other proposed environmental requirements ranges from approximately $325 million to $550 million through 2028. Note that these costs are not exclusive to water-related requirements, but include those associated with air, water and waste requirements. More information can be found in Appendix A to the AEP 2021 Annual Report Proxy Statement: https://www.aep.com/assets/docs/investors/AnnualReportsProxies/docs/21annrep/2022ProxyAppendixA.pdf

### Primary response to risk

Increase investment in new technology

### Description of response

The cost of complying with applicable environmental laws, regulations and rules is expected to be material to the AEP System. AEP management is assessing technology additions and retrofits to comply with the rule and the impacts of the US EPA's recent actions on facilities' wastewater discharge permitting. AEP continues to engage US EPA during the development of the revised steam electric effluent guidelines and CCR requirements. In addition, AEP continues working with the Electric Power Research Institute to determine the effectiveness of new technologies that would be required to meet the new limits.

### Cost of response

615,000,000

### Explanation of cost of response

Investments related to improving AEP System plants' environmental performance and compliance with air and water quality standards during 2017, 2018, 2019 and 2020 are as follows: 2017 - $136 million, 2018 - $116 million, 2019 - $167 million, 2020 - $102 million, 2021 - $94 million  (total of $615 million). These investments include both environmental as well as other related spending. Estimated construction expenditures are subject to periodic review and modification and may vary based on the ongoing effects of regulatory constraints, environmental regulations, business opportunities, market volatility, economic trends and the ability to access capital. In addition to the amounts set forth above, AEP expects to make substantial investments in future years in connection with the modification and addition at generation plants' facilities for environmental quality controls. Such future investments are needed in order to comply with air and water quality standards that have been adopted and have deadlines for compliance after 2019 or have been proposed and may be adopted. AEP's future investment to meet all environmentally related compliance requirements for its fossil generation fleet ranges from approximately $325 million to $550 million through 2028.

# W4.2a

**(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.**

### Country/Area & River basin

United States of America
Mississippi River

### Stage of value chain

Supply chain

### Type of risk & Primary risk driver

Reputation & markets
Increased stakeholder concern or negative stakeholder feedback

### Primary potential impact

Constraint to growth

### Company-specific description

The development of shale gas has made natural gas an economically viable fuel source for AEP generating units; however, the drilling of these gas wells requires large amounts of water. During these operations, there is a risk of contaminating local underground sources of drinking water. Improper discharge of waste waters can also negatively impact surrounding surface waters. As a result, regulators are considering restrictions, which would lead to increased costs for this important fuel source.

### Timeframe

1-3 years

### Magnitude of potential impact

Low

### Likelihood

About as likely as not

### Are you able to provide a potential financial impact figure?

No, we do not have this figure

### Potential financial impact figure (currency)

### Potential financial impact figure - minimum (currency)

### Potential financial impact figure - maximum (currency)

### Explanation of financial impact

The financial impact of future restrictions on shale gas, which could lead to increased costs for this important fuel source, has not been estimated due to the inability to predict future regulatory and financial policies.

### Primary response to risk

Supplier engagement

Other, please specify

Supplier diversification

### Description of response

We do not directly engage with the producers of the natural gas that we use. We buy natural gas in the commodities market and negotiate with pipeline companies to deliver the gas, who are not dependent on water for their operations. Regardless, an unfavorable environmental record could impact AEP's access to reliable sources of natural gas. Engaging with our fuel suppliers ensures our access to a reliable continuous supply of fuel resources. At the same time, AEP is transitioning its generation fleet to take advantage of the benefits of shale gas and lower cost renewables. To ensure 24/7 grid reliability, we rely on a balanced portfolio that utilizes several energy sources, including coal, gas, renewables, energy efficiency, nuclear, solar and hydro. Maintaining a balanced generation portfolio helps to minimize the impacts of a changing energy infrastructure.

### Cost of response

8,200,000,000

### Explanation of cost of response

AEP is transitioning to a balanced, diverse portfolio which will help mitigate risk for our customers and shareholders and ensure a more resilient and reliable energy system. Our goal is to increase regulated renewable energy on our system by approximately 8,000 MW by 2030, by investing $8.2 billion in regulated renewable generation from 2022 through 2026.

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### Country/Area & River basin

United States of America

Mississippi River

### Stage of value chain

Supply chain

### Type of risk & Primary risk driver

Regulatory

Regulatory uncertainty

### Primary potential impact

Constraint to growth

### Company-specific description

As AEP builds and maintains new and existing infrastructure across our service territory, such as transmission or renewable generation facilities, we are mindful of the potential impacts we might have on wildlife species protected under the Endangered Species Act (ESA), the Migratory Bird Treaty Act and the Bald Eagle and Golden Eagle Protection Act and we take the necessary steps to ensure their protection. These same impacts can apply to our supply chain as well limiting or delaying new sources of fuel, treatment chemicals, or materials needed for the construction of new generation or transmission facilities.

### Timeframe

1-3 years

### Magnitude of potential impact

Unknown

### Likelihood

Likely

### Are you able to provide a potential financial impact figure?

No, we do not have this figure

### Potential financial impact figure (currency)

### Potential financial impact figure - minimum (currency)

### Potential financial impact figure - maximum (currency)

### Explanation of financial impact

Unknown

### Primary response to risk

Supplier engagement
Promote greater due diligence among suppliers

### Description of response

AEP assists potential commercial-scale customers with environmental due-diligence and other environmentally related activities.  AEP also works with its major stakeholders and suppliers to ensure that they comply with all relevant environmental regulations.

### Cost of response

### Explanation of cost of response

Unknown

# W4.3

**(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes, we have identified opportunities, and some/all are being realized

# W4.3a

**(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.**

**Type of opportunity**

Resilience

**Primary water-related opportunity**

Other, please specify

Transition to renewable energy

**Company-specific description & strategy to realize opportunity**

A resilient electric grid starts with a system that is designed and built to withstand high winds, powerful storms, and other disruptions that could cause customer outages. AEP has a long history of investing in the grid to make it more reliable, resilient and secure and has focused resources to strengthen the grid's resilience and enhance reliability for customers.

AEP is transitioning to a balanced, diverse portfolio which will help mitigate risk for our customers and shareholders and ensure a more resilient and reliable energy system. From 2011 to 2021, AEP has retired or sold more than 13,700 MW of coal-fueled generation, and we plan to retire more than 5,300 MW of coal generation between now and 2028. Today, 20% of our energy portfolio is renewables and we are shifting that portfolio to more than 50% renewable sources by 2030. We have extended the life of our carbon-free nuclear units and invested $31.4 billion to modernize the transmission and distribution systems. Through the end of 2021, AEP has reduced its carbon emissions by 70% from 2000 levels, putting us well on our way to our goal of reducing our carbon footprint by 80% by 2030.

These investments will reduce our reliance on water-dependent sources of electricity generation. As the grid changes, our resource planning process is changing with it. Once dominated by coal-fueled, water-dependent, generating capacity to meet demand, today's resource plans are now largely comprised of wind, solar and natural gas generating resource investments.

**Estimated timeframe for realization**

4 to 6 years

**Magnitude of potential financial impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

8,200,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact**

AEP plans to invest $8.2 billion in regulated renewable generation from 2022 through 2026. We also plan to retire approximately 5,300 megawatts (MW) of coal-fired generation between 2022 and 2028, affecting hundreds of employees across our service territory. These include a loss of jobs at the fossil-fueled plants and in the broader economy, tax payments that support public services, including education, and economic activity that is supported by the plant's ecosystem. On average, a typical coal-fueled power plant operated by AEP generates $160 million in regional economic activity, $63 million in labor income, and supports more than 700 regional jobs annually. Our analysis shows that plant operations also stimulate significant activity in external supply chains. The most important action we can take is to notify the local community of a plant closure as soon as possible. More recently, AEP has established a new model for enabling a just transition that is collaborative, inclusive and community-driven. An example of how this new model will work involves our Pirkey Plant, a coal-fired facility which will be retired in 2023. The adjacent Sabine Mine, which serves the plant, will also close. Two communities – Hallsville and Marshall – stand to lose tax base that supports local education and public services. In May 2021, AEP and SWEPCO partnered with the Just Transition Fund to engage the communities in developing comprehensive, actionable plans to diversify the local economy. The Pirkey Transition Task Force is composed of more than a dozen local leaders and community stakeholders. They include representatives from two independent school districts, a local judge, the East Texas Council of Governments, the Greater Marshall Chamber of Commerce, the Harrison County Hispanic Lions Club, Texas State Technical College, Marshall Economic Development Corporation, and the Sabine Mine, among others. AEP and SWEPCO also participated on the Task Force. The Just Transition Fund served as a convener and facilitator. It helped the Task Force organize, identify priorities and resources, and develop a road map for economic diversification that can be carried forward. The Just Transition Fund committed six months to the Task Force, achieving the goals established at the outset. More information about this program can be found in our 2022 Corporate Sustainability Report: https://aepsustainability.com/

**Type of opportunity**

Products and services

### Primary water-related opportunity

Other, please specify

Develop new services that support the clean energy transition

### Company-specific description & strategy to realize opportunity

As AEP reduces its reliance on fossil-fuels and water-dependent electricity generation, there will be opportunities to invest in new technologies and resources and develop new services that support the clean energy transition, optimize operations, and meet emerging customer demands. Massive amounts of renewable energy will require additional transmission investment to move the energy and manage its intermittent production. Other opportunities include reduced water usage and consumption with coal plant retirements, particularly in high-stress regions, use of low-to-no carbon emitting generation resources, and development and/or expansion of low-emission goods and services. Benefits include increased demand and revenues, customer satisfaction, reduced operating costs, reduced exposure to rule market pricing, enhance reputation and brand, increased market valuation through resilience planning and supply chain reliability and ability to operate under various conditions.

### Estimated timeframe for realization

4 to 6 years

### Magnitude of potential financial impact

High

### Are you able to provide a potential financial impact figure?

No, we do not have this figure

### Potential financial impact figure (currency)

### Potential financial impact figure – minimum (currency)

### Potential financial impact figure – maximum (currency)

### Explanation of financial impact

While we are unable to provide a financial estimate, we expect that tens of billions of dollars in capital investments will be needed for new, clean energy infrastructure. This represents a significant opportunity to reduce carbon emissions, provide stable energy costs, and grow corporate earnings while also helping to insulate customers from variable costs associated with fossil fuels.

# W5. Facility-level water accounting

## W5.1

**(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.**

**Facility reference number**
Facility 1

**Facility name (optional)**
Amos

**Country/Area & River basin**
United States of America
Mississippi River

**Latitude**
38.47306

**Longitude**
-81.82333

**Located in area with water stress**
No

**Primary power generation source for your electricity generation at this facility**
Coal - hard

**Total water withdrawals at this facility (megaliters/year)**
39,234

**Comparison of total withdrawals with previous reporting year**
About the same

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**
39,234

**Withdrawals from brackish surface water/seawater**
0

**Withdrawals from groundwater - renewable**
0

**Withdrawals from groundwater - non-renewable**
0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

**Total water discharges at this facility (megaliters/year)**

11,142

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

11,142

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

28,092

**Comparison of total consumption with previous reporting year**

About the same

**Please explain**

For year to year comparisons, AEP is defining the thresholds as follows: more than 50% less is ‘much lower,’ 25%-50% less is ‘lower,’ plus or minus 25% is ‘about the same,’ 25%-50% more is ‘higher’ and greater than 50% more is ‘much higher.’ This definition applies to all water use comparisons for the AEP generation fleet. For facility (Amos Plant), changes in water withdrawals, discharges and consumption are due to changes in plant operation, weather and plant dispatch, however, water use during 2021 was about the same as the previous year.

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**Facility reference number**

Facility 2

**Facility name (optional)**

Dresden

**Country/Area & River basin**

United States of America
Mississippi River

**Latitude**
40.09273

**Longitude**
-82.0151

**Located in area with water stress**
Yes

**Primary power generation source for your electricity generation at this facility**
Gas

**Total water withdrawals at this facility (megaliters/year)**
3,942

**Comparison of total withdrawals with previous reporting year**
About the same

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**
3,937

**Withdrawals from brackish surface water/seawater**
0

**Withdrawals from groundwater - renewable**
5

**Withdrawals from groundwater - non-renewable**
0

**Withdrawals from produced/entrained water**
0

**Withdrawals from third party sources**
0

**Total water discharges at this facility (megaliters/year)**
816

**Comparison of total discharges with previous reporting year**
About the same

**Discharges to fresh surface water**
816

**Discharges to brackish surface water/seawater**
0

**Discharges to groundwater**
0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

3,126

**Comparison of total consumption with previous reporting year**

About the same

**Please explain**

Based on AEP's water use comparison definitions (more than 50% less is 'much lower,' 25%-50% less is 'lower,' plus or minus 25% is 'about the same,' 25%-50% more is 'higher' and greater than 50% more is 'much higher'), there were no significant differences in water use at this facility.

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**Facility reference number**

Facility 3

**Facility name (optional)**

Flint Creek

**Country/Area & River basin**

United States of America
Mississippi River

**Latitude**

36.17861

**Longitude**

-94.73458

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

Coal - hard

**Total water withdrawals at this facility (megaliters/year)**

503,507

**Comparison of total withdrawals with previous reporting year**

About the same

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

503,498

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

9

**Total water discharges at this facility (megaliters/year)**

503,507

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

503,507

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

3,755

**Comparison of total consumption with previous reporting year**

About the same

**Please explain**

Weather and changes in plant dispatch can affect water use at each facility. Note that while the water withdrawal and discharge for this facility are roughly the same, water is still consumed. This is due to the way in which the values are estimated, which does not account for rainwater. Consumption is not estimated as a simple difference between water withdrawals and discharges, but is instead based on water flow diagrams and nominal flows. However, based on AEP's water use comparison definitions (more than 50% less is ‘much lower,’ 25%-50% less is ‘lower,’ plus or minus 25% is ‘about the same,’ 25%-50% more is ‘higher’ and greater than 50% more is ‘much higher’), there were no significant differences in water use at this facility.

**Facility reference number**

Facility 4

**Facility name (optional)**
Mitchell

**Country/Area & River basin**
United States of America
Mississippi River

**Latitude**
39.82972

**Longitude**
-80.81528

**Located in area with water stress**
No

**Primary power generation source for your electricity generation at this facility**
Coal - hard

**Total water withdrawals at this facility (megaliters/year)**
17,927

**Comparison of total withdrawals with previous reporting year**
Higher

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**
17,910

**Withdrawals from brackish surface water/seawater**
0

**Withdrawals from groundwater - renewable**
18

**Withdrawals from groundwater - non-renewable**
0

**Withdrawals from produced/entrained water**
0

**Withdrawals from third party sources**
0

**Total water discharges at this facility (megaliters/year)**
5,318

**Comparison of total discharges with previous reporting year**
Higher

**Discharges to fresh surface water**

5,318

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

12,609

**Comparison of total consumption with previous reporting year**

Higher

**Please explain**

Based on AEP's water use comparison definitions (more than 50% less is 'much lower,' 25%-50% less is 'lower,' plus or minus 25% is 'about the same,' 25%-50% more is 'higher' and greater than 50% more is 'much higher'). For this facility (Mitchell Plant), changes in water withdrawals, discharges and consumption are due to changes in plant operation, weather and dispatch.

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**Facility reference number**

Facility 5

**Facility name (optional)**

Mountaineer

**Country/Area & River basin**

United States of America
Mississippi River

**Latitude**

38.97944

**Longitude**

-81.93444

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

Coal - hard

**Total water withdrawals at this facility (megaliters/year)**

17,399

**Comparison of total withdrawals with previous reporting year**

Higher

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

15,756

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

1,643

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

**Total water discharges at this facility (megaliters/year)**

5,567

**Comparison of total discharges with previous reporting year**

Higher

**Discharges to fresh surface water**

5,567

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

11,832

**Comparison of total consumption with previous reporting year**

Higher

**Please explain**

Based on AEP's water use comparison definitions (more than 50% less is ‘much lower,’ 25%-50% less is ‘lower,’ plus or minus 25% is ‘about the same,’ 25%-50% more is ‘higher’ and greater than 50% more is ‘much higher’). For this facility (Mountaineer

Plant), changes in water withdrawals, discharges and consumption are due to changes in plant operation, weather and dispatch.

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**Facility reference number**

Facility 6

**Facility name (optional)**

Northeastern

**Country/Area & River basin**

United States of America
Mississippi River

**Latitude**

36.42619

**Longitude**

-95.70136

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

Coal - hard

**Total water withdrawals at this facility (megaliters/year)**

6,837

**Comparison of total withdrawals with previous reporting year**

Higher

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

6,837

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

**Total water discharges at this facility (megaliters/year)**

3,045

**Comparison of total discharges with previous reporting year**

Higher

**Discharges to fresh surface water**

3,045

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

3,792

**Comparison of total consumption with previous reporting year**

Higher

**Please explain**

Weather and changes in plant dispatch can affect water use at each facility. Based on AEP's water use comparison definitions (more than 50% less is ‘much lower,’ 25%-50% less is ‘lower,’ plus or minus 25% is ‘about the same,’ 25%-50% more is ‘higher’ and greater than 50% more is ‘much higher’). For this facility (Northeastern Plant), water use during 2021 was higher. Such changes are due to differences in plant operation, weather and dispatch.

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**Facility reference number**

Facility 7

**Facility name (optional)**

Pirkey

**Country/Area & River basin**

United States of America
Sabine River

**Latitude**

32.50722

**Longitude**

-94.53333

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

Lignite

**Total water withdrawals at this facility (megaliters/year)**

557,721

**Comparison of total withdrawals with previous reporting year**

About the same

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

557,702

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

20

**Total water discharges at this facility (megaliters/year)**

492,628

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

492,628

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

57,582

**Comparison of total consumption with previous reporting year**

Much higher

**Please explain**

Based on AEP's water use comparison definitions (more than 50% less is ‘much lower,’ 25%-50% less is ‘lower,’ plus or minus 25% is ‘about the same,’ 25%-50% more is ‘higher’ and greater than 50% more is ‘much higher’). Water use at this facility was about the same, though consumption was higher.

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**Facility reference number**

Facility 8

**Facility name (optional)**

Rockport

**Country/Area & River basin**

United States of America
Mississippi River

**Latitude**

37.92556

**Longitude**

-87.03722

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

Coal - hard

**Total water withdrawals at this facility (megaliters/year)**

20,268

**Comparison of total withdrawals with previous reporting year**

Much higher

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

18,463

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

1,805

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

**Total water discharges at this facility (megaliters/year)**

6,931

**Comparison of total discharges with previous reporting year**

Much higher

**Discharges to fresh surface water**

6,931

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

13,337

**Comparison of total consumption with previous reporting year**

Much higher

**Please explain**

Based on AEP's water use comparison definitions (more than 50% less is 'much lower,' 25%-50% less is 'lower,' plus or minus 25% is 'about the same,' 25%-50% more is 'higher' and greater than 50% more is 'much higher'). For this facility (Rockport Plant), changes in water withdrawals, discharges and consumption are due to changes in plant operation, weather and dispatch.

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**Facility reference number**

Facility 9

**Facility name (optional)**

Southwestern

**Country/Area & River basin**

United States of America
Mississippi River

**Latitude**

35.10228

**Longitude**

-98.3523

**Located in area with water stress**

Yes

**Primary power generation source for your electricity generation at this facility**

Gas

**Total water withdrawals at this facility (megaliters/year)**

1,751

**Comparison of total withdrawals with previous reporting year**

Lower

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

1,700

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

51

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

**Total water discharges at this facility (megaliters/year)**

715

**Comparison of total discharges with previous reporting year**

Lower

**Discharges to fresh surface water**

715

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

1,035

**Comparison of total consumption with previous reporting year**

Lower

**Please explain**

Based on AEP's water use comparison definitions (more than 50% less is ‘much lower,’ 25%-50% less is ‘lower,’ plus or minus 25% is ‘about the same,’ 25%-50% more is ‘higher’ and greater than 50% more is ‘much higher’), water withdrawals, discharges and water consumption were "lower,"  at this facility.

---

**Facility reference number**

Facility 10

**Facility name (optional)**

Welsh

**Country/Area & River basin**

United States of America
Mississippi River

**Latitude**

33.05475

**Longitude**

-94.84116

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

Coal - hard

**Total water withdrawals at this facility (megaliters/year)**

882,689

**Comparison of total withdrawals with previous reporting year**

About the same

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

882,688

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

1

**Total water discharges at this facility (megaliters/year)**

819,494

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

819,494

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

70,027

**Comparison of total consumption with previous reporting year**

About the same

**Please explain**

Based on AEP's water use comparison definitions (more than 50% less is 'much lower,' 25%-50% less is 'lower,' plus or minus 25% is 'about the same,' 25%-50% more is 'higher' and greater than 50% more is 'much higher'), water withdrawals, discharges and consumption were about the same at this facility.

# W5.1a

## (W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been third party verified?

### Water withdrawals – total volumes

**% verified**

76-100

**Verification standard used**

Values are verified through FERC reporting

## Water withdrawals – volume by source

### % verified

76-100

### Verification standard used

Values are verified through NPDES permitting submittals.

## Water withdrawals – quality by standard water quality parameters

### % verified

76-100

### Verification standard used

Plant staff monitor the quality of water as it is used in the steam electric generation process.

## Water discharges – total volumes

### % verified

76-100

### Verification standard used

Values are verified through NPDES permitting submittals.

## Water discharges – volume by destination

### % verified

76-100

### Verification standard used

Values are verified through NPDES permitting submittals.

## Water discharges – volume by final treatment level

### % verified

76-100

### Verification standard used

Values are verified through NPDES permitting submittals.

## Water discharges – quality by standard water quality parameters

**% verified**

76-100

**Verification standard used**

Values are verified through NPDES permitting submittals.

**Water consumption – total volume**

**% verified**

76-100

**Verification standard used**

Water consumption values are verified through an internal audit process which is conducted by AEP during the development of its Corporate Sustainability Report. Each water value must be supported by documentation, which is reviewed by an auditor and approved by the Director of the Water and Ecological Resource Department.

# W6. Governance

## W6.1

**(W6.1) Does your organization have a water policy?**

Yes, we have a documented water policy that is publicly available

## W6.1a

**(W6.1a) Select the options that best describe the scope and content of your water policy.**

| | Scope | Content | Please explain |
|---|---|---|---|
| Row 1 | Company-wide | Description of business dependency on water<br>Description of business impact on water<br>Description of water-related performance standards for direct operations<br>Company water targets and goals<br>Commitment to water-related innovation | Water use is an important issue for AEP and we are taking steps to reduce our water consumption, improve water quality and address water availability. Currently, about 87% of the power generated by AEP requires water. AEP meets all water quality standards while discharging billions of gallons of wastewater per day. Water is also essential for agriculture, drinking water and economic growth; therefore, we work to protect water availability within watersheds. Our facilities are subject to a variety of regulatory requirements. Our goal is zero violations and zero enforcement actions. AEP uses metrics tied to incentive compensation to encourage self-reporting of events and to improve environmental performance. AEP's carbon reduction goals will result in less water |

| | | | |
|---|---|---|---|
| | | Commitment to stakeholder awareness and education<br>Commitment to water stewardship and/or collective action<br>Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace<br>Acknowledgement of the human right to water and sanitation<br>Recognition of environmental linkages, for example, due to climate change | use as the company increases its renewable generation capacity. AEP participates in collaborative industry research, particularly with the Electric Power Research Institute (EPRI), to find better ways to manage its use of water. AEP extensively reports on its usage and management of water through both required and voluntary reporting efforts, such as the U.S. Energy Information Administration and the Global Reporting Initiative. As AEP continues to diversify its generating portfolio and retire coal generation capacity, our water use will continue to decrease. AEP provides potable water for each employee that is sufficient and continuous for personal and domestic uses, is safe and free of hazards, is of an acceptable color, smell and taste, and is physically accessible within the workplace. AEP agrees that climate change is a significant issue. In 2019, climate change was assessed using AEP's risk management framework and added to the summary view of risks reported to the Risk Executive Committee and the Audit Committee of the Board of Directors. In 2020, AEP released its report, "Powering Forward to Net-Zero, AEP's Climate Impact Analysis," which describes our year-long effort to analyze the risks to AEP, its customers, and the communities it serves, from climate change and related water risks. The report is aligned with the Task Force for Climate related Financial Disclosure (TCFD) framework, which is the preferred approach for reporting on climate risk management, and describes AEP's plans and policies to address the issues.<br>1 |

[1]AEPs-Climate-Impact-Analysis.pdf

# W6.2

**(W6.2) Is there board level oversight of water-related issues within your organization?**

Yes

# W6.2a

**(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.**

| Position of individual | Please explain |
|---|---|

| | |
|---|---|
| Other, please specify<br>AEP Board of Directors | AEP's Board of Directors understands the importance of climate change and water-related issues and their significance to our employees, customers, investors and other stakeholders. Water-related issues are considered as part of environmental performance and compliance when reviewing and guiding our business strategy, major plans of action, risk management policies, annual budgets, and budget plans, as well as setting the organization's performance objectives, monitoring implementation and performance, and overseeing major capital expenditures, acquisitions, and divestitures throughout the year. The AEP Board Committee on Directors and Corporate Governance oversees sustainability reporting, which includes climate change, political and shareholder engagement, and its corporate compliance program. Climate-related risks are reviewed by the full Board. The Audit Committee oversees internal controls and compliance risks, including those related to climate. The Policy Committee invites external experts to meet with the Board on policy issues, including climate change. The Finance Committee makes recommendations regarding investments with respect to renewables and other non-carbon emitting, water-independent assets. |
| Chief Executive Officer (CEO) | Due to the carbon and water intensive nature of our business, AEP's Chairman, President and CEO is directly responsible for managing AEP's response to climate change and other environmental risks, including those that are water-related. As Chair of the Board of Directors, the position has direct oversight over corporate strategy, structure and management. The Committee on Directors & Corporate Governance of AEP's Board of Directors has oversight over sustainability performance reporting, which includes the company's strategy for addressing climate change, environmental performance and compliance, water use and biodiversity. The Board holds management accountable for sustainability and financial performance, as described in a Board statement that we publish every year online (https://aepsustainability.com/performance/board-statement/ ) and in our annual Corporate Sustainability Report (http://www.aepsustainability.com/). |
| Chief Sustainability Officer (CSO) | In 2022, AEP announced the new Role of Chief Sustainability Officer (CSO) to lead the company's sustainability and environmental, social and governance (ESG) strategy, corporate stakeholder engagement, and annual sustainability and ESG performance reporting and risk monitoring. This position helps to make and influence decisions pertaining to green bonds, climate reporting, SEC compliance and other ESG policies and initiatives. |

# W6.2b

**(W6.2b) Provide further details on the board's oversight of water-related issues.**

| | Frequency that water-related issues are a scheduled agenda item | Governance mechanisms into which water-related issues are integrated | Please explain |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Row 1 | Scheduled - some meetings | Monitoring implementation and performance<br>Overseeing acquisitions and divestiture<br>Overseeing major capital expenditures<br>Providing employee incentives<br>Reviewing and guiding business plans<br>Reviewing and guiding risk management policies<br>Reviewing and guiding corporate responsibility strategy<br>Reviewing innovation/R&D priorities<br>Setting performance objectives | In response to environmental issues and in connection with its assessment of AEP's strategic plan, the Board of Directors continually reviews risks posed by new environmental rules and requirements that could accelerate the retirement of coal-fired and water-dependent generation assets. The Board of Directors is informed of any new environmental regulations and proposed regulation or legislation that would significantly affect AEP. The Board's Committee on Directors and Corporate Governance oversees AEP's annual Corporate Sustainability Report, which includes information about AEP's environmental, social, governance and financial performance.<br><br>The AEP Board of Directors is engaged on all major projects, including those that are water-related, such as compliance with new Steam Electric Effluent Guidelines (ELGs) or the Coal Combustion Residual (CCR) requirements. In addition, if any water issues are ever determined to be a high risk to the company, those would be presented and discussed. This occurs on a periodic basis. At AEP, we have strong governance to support sustainability and ESG performance, ensuring alignment with corporate strategies. Our Board of Directors works closely with our executive team to ensure that performance, innovation, ethics and service standards are met. Through AEP's Enterprise Sustainability Council (ESC) – with oversight from executive management and the Committee on Directors and Corporate Governance of the Board of Directors – we have clear guidance on our ESG responsibilities for sustainable business development. ESC members, who represent all aspects of AEP's business, serve as strategic ambassadors, providing guidance and support to ensure the success of AEP's sustainable development strategy. The ESC is also responsible for monitoring the progress of AEP's sustainability goals. In addition to the ESC, the Committee on Directors and Corporate Governance of the Board of Directors reviews the annual Corporate Sustainability Report and monitors AEP's ESG performance. The Committee provides feedback and develops the Board Statement supporting AEP's |

| | | | |
|---|---|---|---|
| | | | commitment to sustainable business development and performance accountability. We established a cross-functional ESG Team to monitor new and emerging ESG issues and develop strategies for responding to them. Because ESG performance is also a business risk, AEP added it to our risk summary report, and we are integrating it with our corporate strategy. We continue to engage in industry efforts, such as the Edison Electric Institute (EEI) ESG/Sustainability Committee and the Electric Power Research Institute (EPRI) to influence standardized disclosure for the electric utility industry. We are mapping our disclosure to the Task Force for Climate-related Financial Disclosure (TCFD) and to the Sustainability Accounting Standards Board (SASB) framework. Materiality also matters when disclosing performance. Water is one of AEP's priority sustainability environmental issues. |

# W6.2d

**(W6.2d) Does your organization have at least one board member with competence on water-related issues?**

| | Board member(s) have competence on water-related issues |
|---|---|
| Row 1 | Not assessed |

# W6.3

**(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).**

### Name of the position(s) and/or committee(s)

Chief Executive Officer (CEO)

### Responsibility

Other, please specify

At the Chief Executive Officer level, all financial and environmental risks are assessed and managed.

### Frequency of reporting to the board on water-related issues

More frequently than quarterly

### Please explain

The CEO is engaged on all major projects, including those that are water-related, such as compliance with new Steam Electric Effluent Guidelines or the Coal Combustion

Residual requirements. This also includes climate and water-related issues when reviewing and guiding the company's business strategy, major plans of action, risk management policies, annual budgets, and budget plans, as well as setting the organization's performance objectives, overseeing major capital expenditures, acquisitions, and divestitures throughout the year.

---

**Name of the position(s) and/or committee(s)**

Other, please specify

Executive Vice President of Generation

**Responsibility**

Other, please specify

Assessing and managing all environmentally-related risks and opportunities

**Frequency of reporting to the board on water-related issues**

More frequently than quarterly

**Please explain**

AEP's Executive Vice President of Generation has direct responsibility for all generation and related environmental issues within the company. He is briefed on all water-related issues as they arise and is kept apprised on a regular basis, not less than every other week. This would include issues such as the new steam electric effluent guidelines or environmental compliance.

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**Name of the position(s) and/or committee(s)**

Other, please specify

Vice President of Environmental Services

**Responsibility**

Other, please specify

Both assessing and managing water-related risks and opportunities

**Frequency of reporting to the board on water-related issues**

More frequently than quarterly

**Please explain**

AEP's Vice President of Environmental Services has direct responsibility for water quality and quantity issues within the company. He is briefed on all water-related issues as they arise and is regularly kept apprised on a regular basis, not less than every other week.

---

**Name of the position(s) and/or committee(s)**

Chief Sustainability Officer (CSO)

**Responsibility**

Other, please specify

Leads the company's sustainability and environmental, social and governance (ESG) strategy, corporate stakeholder engagement, and annual sustainability and ESG performance reporting and risk monitoring.

**Frequency of reporting to the board on water-related issues**

Half-yearly

**Please explain**

In addition to the responsibilities listed above, AEP's Vice President and Chief Sustainability Officer helps to make and influence decisions pertaining to green bonds, climate, environmental and biodiversity reporting, SEC compliance and other ESG policies and initiatives.

# W6.4

**(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?**

| | Provide incentives for management of water-related issues | Comment |
|---|---|---|
| Row 1 | Yes | |

# W6.4a

**(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?**

| | Role(s) entitled to incentive | Performance indicator | Please explain |
|---|---|---|---|
| Monetary reward | Board/Executive board<br>Corporate executive team<br>Chief Sustainability Officer (CSO)<br>Other, please specify<br>All employees, the CEO and Board | Reduction of water withdrawals<br>Improvements in efficiency - direct operations<br>Improvements in waste water quality - direct operations<br>Implementation of employee awareness campaign or training program | AEP's compensation program is based on the fundamental premise of pay for performance. This compensation can come in several forms including, base pay and incentive pay. AEP offers both annual and long-term incentive programs to reward outstanding performance and achievement of business goals. AEP's business goals include achieving financial goals as well as longer-term strategic goals. Achieving annual financial goals are predicated upon successful execution of AEP's business strategy, which includes proactive deployment of emission abatement measures such as energy efficiency, highly efficient new generation and renewable energy, which reduces our need for water. Furthermore, AEP includes strategic goals which are based on core commitments to AEP's business model that may have less of an immediate |

| | | | |
|---|---|---|---|
| | | | financial return as part of its incentive compensation plan. AEP's mission and vision include commitments to culture and business transformation can be found at (https://www.aep.com/about/mission/). |
| Non-monetary reward | Board/Executive board<br>Corporate executive team<br>Chief Sustainability Officer (CSO)<br>Other, please specify<br>All employees, the CEO and Board | Reduction of water withdrawals<br>Improvements in efficiency - direct operations<br>Improvements in waste water quality - direct operations<br>Implementation of employee awareness campaign or training program | AEP's compensation program is based on the fundamental premise of pay for performance. This compensation can come in several forms including, base pay and incentive pay. AEP offers both annual and long-term incentive programs to reward outstanding performance and achievement of business goals. AEP's business goals include achieving financial goals as well as longer-term strategic goals. Achieving annual financial goals are predicated upon successful execution of AEP's business strategy, which includes proactive deployment of emission abatement measures such as energy efficiency, highly efficient new generation and renewable energy, which reduces our need for water. Furthermore, AEP includes strategic goals which are based on core commitments to AEP's business model that may have less of an immediate financial return as part of its incentive compensation plan. Achievements are recognized through employee notifications, media announcements, meeting presentations, and other awards. AEP's mission and vision include commitments to culture and business transformation can be found at (https://www.aep.com/about/mission/). |

# W6.5

**(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?**

Yes, direct engagement with policy makers
Yes, trade associations
Yes, funding research organizations

# W6.5a

**(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?**

Evolving U.S. environmental policy considerations have not changed our plans for complying with all applicable environmental regulations. While the path forward for some regulations, such as the CCR or ELG rules is becoming clearer, there are many others that we must comply with and new ones that are still being finalized. As the scope and stringency of environmental regulations evolve, we are faced with technical, operational and financial challenges that are common for our industry. These challenges, including uncertainties with timing, scope and magnitude of future environmental regulations, influence our decisions to upgrade or retire generating units. They also affect the planning process for new generation and transmission projects across our industry. AEP's active participation in the development of regulations helps to ensure that new requirements are achievable, based on sound science, consistent with statutory authority, balanced with other rulemakings, weigh the cost of compliance for customers, and can be implemented in a rational time frame. Compliance is important to us, but we also have a responsibility to our investors who make the required capital investment and to our customers, who will ultimately pay for the implementation of compliance strategies.

## W6.6

**(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?**

Yes (you may attach the report - this is optional)

AEP_10K_2021.pdf

# W7. Business strategy

## W7.1

**(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?**

| | Are water-related issues integrated? | Long-term time horizon (years) | Please explain |
|---|---|---|---|
| Long-term business objectives | Yes, water-related issues are integrated | 5-10 | AEP's corporate environmental compliance goal, including compliance with water requirements, is a key part of its business strategy. Potential changes to water regulatory programs have, for many years, been included in the company's long-term capital forecast, which includes our best assessment of the financial exposure due to water-related issues. This forecast is incorporated into our business strategy and communicated to the investment community. AEP's corporate environmental compliance goal, including compliance with water requirements, is a key part of its business strategy. |

| | | | |
|---|---|---|---|
| Strategy for achieving long-term objectives | Yes, water-related issues are integrated | 5-10 | Water quality, availability, use and management are increasingly important sustainability issues for AEP. We are continuing to take steps to reduce our water consumption, improve water quality and address water availability issues as we comply with current regulations and prepare for new ones. As a part of this commitment, we provided nearly $850,000 dollars of funding to the Electric Power Research Institute during 2021 in support of water-related research, focusing on ecosystem risk and resiliency, water quality, groundwater, strategic sustainability science, and water treatment technologies. |
| Financial planning | Yes, water-related issues are integrated | 5-10 | AEP's corporate environmental compliance goal, including compliance with water requirements, is a key part of its business strategy. Potential changes to water regulatory programs have, for many years, been included in the company's long-term capital forecast, which includes our best assessment of the financial exposure due to water-related issues. This forecast is incorporated into our business strategy and communicated to the investment community. AEP's corporate environmental compliance goal, including compliance with water requirements, is a key part of its business strategy. |

# W7.2

**(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?**

**Row 1**

**Water-related CAPEX (+/- % change)**

200

**Anticipated forward trend for CAPEX (+/- % change)**

-50

**Water-related OPEX (+/- % change)**

82

**Anticipated forward trend for OPEX (+/- % change)**

-42

**Please explain**

From 2021 to 2022 the water-related CAPEX increase is estimated to be 200%. From 2022 to 2023 we anticipate a year over year CAPEX decrease of 50%. These are based on current planning assumptions and final decisions have not been made. There are several projects that drive these numbers that are pending testing, technology studies, regulatory outcomes, and / or business evaluations. It was estimated that from 2019 to 2020, AEP's water-related OPEX increased 82%. Examples of water-related OPEX include permit renewals, water quality testing, consulting services, surface and groundwater monitoring, and regulatory compliance support. A decline of 42% in OPEX was estimated for 2021, based on the first six months of budget information. Estimates are based on expenses for the steam electric fleet that was operated or supported by AEP during 2019, 2020, 2021 and 2022. The declining trends are indicative of plant retirements and ownership transfers.

# W7.3

**(W7.3) Does your organization use scenario analysis to inform its business strategy?**

| | Use of scenario analysis | Comment |
|---|---|---|
| Row 1 | Yes | In 2020, AEP completed a climate scenario risk analysis, which was consistent with the Paris Agreement. In addition to modeling plausible pathways to a low-carbon future, AEP also examined the potential physical impacts and social aspects related to retiring coal units in our fleet. Our analysis was guided by the Task Force on Climate-Related Financial Disclosures (TCFD) framework, setting specific parameters related to geography and macro-economic variables. We developed assumptions related to technology development and deployment, energy mix, price of key commodities or inputs, timing of potential impacts, and potential policy changes. The scenarios represented a unique approach to examine potential carbon emissions and generating fleet changes over time. With increased constraints on carbon emissions, water-independent, renewable energy, dominated the future energy portfolio. The study also revealed transition opportunities which will be used to guide future business decisions. |

# W7.3a

**(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization's business strategy.**

| | Type of scenario analysis used | Parameters, assumptions, analytical choices | Description of possible water-related outcomes | Influence on business strategy |
|---|---|---|---|---|
| Row 1 | Climate-related | Scenario modeling is a process by which alternative futures or assumptions are considered to provide insights on strategic directions in the face of uncertainty. | In 2020, we completed our analysis | These scenarios have led |

| | | | | |
|---|---|---|---|---|
| | Other, please specify<br>Please see response to 7.3 | In developing our transition scenarios and our approach to analysis, we evaluated potential pathways for greenhouse gas mitigation through potential changes in AEP's generating fleet, such as coal plant retirements, which represent the bulk of AEP's emissions. We also considered existing and future technologies and resources that would enable the transition to net-zero carbon. We used a carbon price as a proxy for regulations, as we do in our Integrated Resource Plans, and developed market assumptions, such as the price of wholesale power. For purposes of this analysis, AEP mirrored the assumptions of the Annual Energy Outlook 2020 for most available parameters. For example, in the 2022 version of this report, Petroleum and natural gas remain the most-consumed source of energy in the U.S. through 2050 and wind and solar incentives, along with falling technology costs, support robust competition with natural gas for electricity generation, while the shares of water-dependent coal and nuclear power decrease. In each of the modeled scenarios, there are specific assumptions around constraints on emissions or clean energy requirements. However, there may be multiple policy mechanisms to reach these scenario outcomes. Our analysis was guided by the Task Force on Climate-related Financial Disclosures or the TCFD framework, setting specific parameters related to geography and macro-economic variables. More information can be found in AEP's Climate Impact Analysis report, "Powering Forward to Net-Zero" at: https://aepsustainability.com/performance/report/docs/AEPs-Climate-Impact-Analysis-2021.pdf | of how climate-related risks and opportunities may play out under different scenarios, the potential impact they could have on our company, and the new business opportunities they may provide. As part of the analysis, we reviewed a climate-related water risk study done by EPRI. The assessment identified potential risks to: (1) thermal generation, (2) hydroelectric generation, (3) land-based renewable generation and (4) transmission and distribution facilities. | AEP to announce plans for adding several thousand megawatts of renewable energy to its system over the next decade and to set a 2050 carbon reduction goal that is consistent with global carbon scenarios. Consistent with this future scenario, water withdrawals and consumption are projected to significantly decline as older fossil generation is retired and replaced with sources such as wind and solar that |

| | | | | |
|---|---|---|---|---|
| | | | These risks may result from projected reductions in water availability (e.g., for hydroelectric or once-through cooling), increased water temperatures (e.g., decrease in cooling efficiency, inability to meet discharge permit conditions) and decreased water quality (e.g., from increased transport of sediment and dissolved solids). The report noted key water-related impacts to the AEP system that would primarily occur in the Midwest, Southeast and | do not require water for energy production. AEP will continue to monitor future scenarios for issues of water availability and quality. |

| | | | | |
|---|---|---|---|---|
| | | | Southern Plains areas. The potential changes in water quality, availability, temperature and quantity identified by EPRI extend beyond generation facilities. For example, we might need to take mitigating actions to stabilize a stream bank if we were relocating or siting new transmission or distribution infrastructure in an area at risk for this type of erosion. We also reviewed the impacts of flooding and will need to take the location of new facilities into consideration, locating them outside of areas | |

| | | | | |
|---|---|---|---|---|
| | | | most vulnerable to severe flooding. | |

# W7.4

## (W7.4) Does your company use an internal price on water?

### Row 1

#### Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

#### Please explain

When renegotiating water rates, AEP will consider costs other than those directly related to market prices. For example, in the past, AEP paid a premium to have a firm water supply available for its now retired Oklaunion Plant, during periods of intense drought. When renewing the existing contract for grey water at our Comanche Plant, AEP will consider, among other issues, the difficulties that the City of Lawton will have in providing effluent that meets state and federal discharge limits. When renegotiating Flint Creek's water contract, AEP agreed to make improvements to the municipal system to insure adequate downstream flows. The company also accepted an increase in the water rate as a "good neighbor" policy. One last example involves the state of Texas, which allows water rights to be placed into a "trust" to be used for environmental purposes. This gives water right owners a unique option on how to manage their unused water rights.

# W7.5

## (W7.5) Do you classify any of your current products and/or services as low water impact?

| | Products and/or services classified as low water impact | Definition used to classify low water impact | Please explain |
|---|---|---|---|
| Row 1 | Yes | AEP defines low water impact products or services as those that do not rely on or impact sources of water. In particular, wind and solar electricity generation are considered to be low water impact sources of electricity. For example, in 2021, the AEP North Central Energy Facilities | According to CDP guidance, "low water impact" products or services are those that can be considered as having a lower detrimental impact on water resources, water quality and ecosystems than the market norm or the company's previous products/services. In the case of AEP, wind and solar energy produced from |

| | | | |
|---|---|---|---|
| | | (NCEF) Maverick and Sundance wind farms began generating clean, reliable electricity and reducing bill impacts for customers. A third facility, named Traverse, came online in March 2022. The Traverse project is the largest single wind farm built at one time in North America. Together, the wind farms provide 1,484 MW of low water-impact, clean energy, to customers of Public Service Company of Oklahoma and the Southwestern Electric Power Company. At the corporate level, 2021 marked an important milestone in AEP's clean energy transition when the company announced a plan to shift our generation portfolio from majority fossil fuel, which is dependent on water, to majority, water-independent, renewables by the end of this decade. The strategy proposes adding approximately 16 gigawatts of new regulated renewable resources by 2030. | photovoltaic panels use virtually no water at all. Likewise, wind turbines are used to produce electricity without the use of water. In addition, these renewable energy sources are clean and do not threaten water contamination as there are no discharges to water sources. |

# W8. Targets

## W8.1

**(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.**

| | Levels for targets and/or goals | Monitoring at corporate level | Approach to setting and monitoring targets and/or goals |
|---|---|---|---|
| Row 1 | Company-wide targets and goals<br>Business level specific targets and/or goals | Targets are monitored at the corporate level<br>Goals are monitored at the corporate level | AEP's water use is closely related to its generation portfolio and fleet of steam electric facilities. AEP has developed sustainability goals, which focus on issues such as climate change, carbon risk, energy efficiency, and renewable energy. The carbon reduction and renewable energy goals will result in less water use and lower water intensity as the company meets these goals. Water use itself is primarily regulated under environmental statutes, such as the Clean Water Act. In addition to a target of zero environmental |

| | | | |
|---|---|---|---|
| | | | enforcement actions, the company undertakes water-related activities to improve and protect water quality. It also implements stewardship projects to improve and protect watersheds. For example, employees at the Flint Creek Plant in Arkansas have grown 1,000 tree seedlings every year for the primary purpose of providing them to the Illinois River Watershed Partnership (IRWP).The IRWP is a non-profit organization that provides riparian landowners the opportunity to partner on projects to improve the river-side habitat and reduce riverbank erosion. AEP has been a board member or an executive officer of the IRWP for over 10 years and the AEP Foundation donated $200K for environmental education purposes to IRWP in 2020. More information is available at http://irwp.org |

# W8.1a

**(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.**

### Target reference number

Target 1

### Category of target

Product water intensity

### Level

Company-wide

### Primary motivation

Climate change adaptation and mitigation strategiess

### Description of target

The carbon reduction goals will result in less water use. Our goal is to reduce AEP's carbon emissions from directly owned generation (scope 1) 80% by 2030 compared to 2000 levels and to achieve net-zero emissions by 2050 (scopes 1 and 2). Through the end of 2021, AEP has reduced its carbon emissions 70% from 2000 levels. Along with these carbon reductions, AEP has reduced its surface water use by 42% and its surface water consumption by 53%, both since 2013. The climate scenarios we conducted showed that we can reach > 95% toward zero carbon emissions by 2050 with conventional technologies and we remain hopeful that emerging technologies, such as advanced nuclear, carbon capture, hydrogen and energy storage, will help us close that gap. In total, from 2011 to 2021, AEP has retired or sold more than 13,700 MW of coal-fueled, water dependent, generation, and we have plans to retire another 5,300 MW between 2022 and 2028, representing billions of gallons of water withdrawals per year.

**Quantitative metric**

Other, please specify

Percent reduction of carbon emissions

**Baseline year**

2000

**Start year**

2011

**Target year**

2030

**% of target achieved**

70

**Please explain**

Through the end of 2021, AEP has reduced its carbon emissions 70% from 2000 levels and has significantly increased its water-free renewables generation portfolio. In Oklahoma, as part of the North Central Energy Facilities (NCEF), the Maverick and Sundance wind farms began generating clean, reliable electricity in 2021. A third facility, named Traverse, came online in March 2022. The Traverse project is the largest single wind farm built at one time in North America. Together, the wind farms provide 1,484 MW of clean, water-free energy to customers of Public Service Company of Oklahoma and the Southwestern Electric Power Company. This approximately $2 billion investment is delivering clean, water-free, renewable energy to customers in Arkansas, Louisiana and Oklahoma . At the same time, since 2013, we have reduced our surface water use by nearly 42% and our surface water consumption by 53%.

**Target reference number**

Target 2

**Category of target**

Water pollution reduction

**Level**

Company-wide

**Primary motivation**

Risk mitigation

**Description of target**

We tie a portion of the funding for incentive compensation to environmental stewardship, which is based on the number of environmental enforcement actions with significant fines that are resolved during the year. Our Environmental Performance Index (EPI) includes annual goals related to opacity, water discharge permits, and oil and chemical spills. Reinforcing its importance, we tie our Generation department's incentive

compensation to EPI performance. In 2017, the EPI was expanded to include all reported events specific to National Pollutant Discharge Elimination System (NPDES) permit expectations and spill events. We set annual targets focusing on continuous improvement as we strive for zero enforcement actions and zero events. Due to the proven success of the EPI program, in 2022 AEP is developing and expanding environmental performance goals that will apply to other parts of our business including Transmission and Distribution.

**Quantitative metric**

Other, please specify

100% compliance and no violations

**Baseline year**

2017

**Start year**

2017

**Target year**

2021

**% of target achieved**

99

**Please explain**

Since 2015, the number of EPI events has decreased or remained consistent each year, demonstrating the continuous improvement of Generation's overall environmental performance. During 2021, we had 18 EPI events, the same number as in 2020. Despite these events, AEP achieved a compliance rate of >99% based on the number of potential violations that could occur during the year. Hundreds of samples are collected at steam electric facilities subject to this target and there are hundreds, if not thousands, of opportunities to violate a regulatory requirement (i.e. failure to sample, failure to report, failure to comply with limits, failure to properly report or remediate).

# W8.1b

**(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.**

**Goal**

Other, please specify

In 2018, AEP announced Corporate Sustainability Goals

**Level**

Company-wide

**Motivation**

Commitment to the UN Sustainable Development Goals

**Description of goal**

In 2018, AEP publicly announced our Corporate Sustainability Goals in parallel with our carbon reduction goals. Our sustainability goals are guided by AEP's Strategic Framework for Sustainable Development, which provides context and a roadmap to implement throughout our value chain. We support our goals with metrics and methodologies to measure performance against our business plan and across our operations. We mapped our sustainability goals to the United Nations Sustainable Development Goals (SDGs) and our sustainability performance to several frameworks, including: TCFD, SASB, CDP and GRI reports, to further demonstrate how we create shared value for our business and society. In 2020, we issued our first goals report and the 2021 ESG Strategy & Performance Report serves as a supplemental report to the CSR, demonstrating our commitment to reporting on our progress towards a responsible and sustainable energy future. This report includes AEP's ESG strategy, governance structure, stakeholder engagement efforts, materiality assessment and ESG awards and recognition. In addition, it includes our ESG Data Center, which presents a three-year trend on 250+ of the most requested ESG metrics. AEP' 2021 ESG Strategy & Performance Report at: https://www.aepsustainability.com/performance/docs/AEP-2021-ESG-Strategy-Performance-Report.pdf

**Baseline year**

2018

**Start year**

2019

**End year**

2021

**Progress**

As a reflection of our progress, AEP's 2019 EEI ESG/Sustainability Report for Investors received the 2020 CR Reporting Award (CRRA' 20) second runner-up for the Best Environmental, Social and Governance (ESG) Report by CorporateRegister.com. AEP's report was among 152 entries across 11 categories. The awards recognize the very best in corporate sustainability reporting and are the world's only independent global annual awards in this field. Please refer to the report, " AEP' 2021 ESG Strategy & Performance Report" at link to report at https://www.aepsustainability.com/performance/docs/AEP-2021-ESG-Strategy-Performance-Report.pdf

# W9. Verification

## W9.1

**(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?**

Yes

## W9.1a

**(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?**

| Disclosure module | Data verified | Verification standard | Please explain |
|---|---|---|---|
| W1 Current state | Though only the first section of the CDP survey has been indicated, all portions of the survey have been verified through an AEP auditing process. | Other, please specify<br>Institute of Internal Auditors | AEP auditors followed the standards and guidance of the Institute of Internal Auditors as they conducted the audit of the company's Corporate Sustainability Report, from which much of the information used in this response was obtained. |

# W10. Sign off

## W-FI

**(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

## W10.1

**(W10.1) Provide details for the person that has signed off (approved) your CDP water response.**

| | Job title | Corresponding job category |
|---|---|---|
| Row 1 | Vice President-Environmental Services | Other C-Suite Officer |

## W10.2

**(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].**

Yes

# SW. Supply chain module

## SW0.1

### (SW0.1) What is your organization's annual revenue for the reporting period?

| | Annual revenue |
|---|---|
| Row 1 | 16,800,000,000 |

## SW1.1

### (SW1.1) Could any of your facilities reported in W5.1 have an impact on a requesting CDP supply chain member?

We do not have this data and have no intentions to collect it

## SW1.2

### (SW1.2) Are you able to provide geolocation data for your facilities?

| | Are you able to provide geolocation data for your facilities? | Comment |
|---|---|---|
| Row 1 | Yes, for all facilities | Geolocation data for facilities reported in W5.1 is provided below. |

## SW1.2a

### (SW1.2a) Please provide all available geolocation data for your facilities.

| Identifier | Latitude | Longitude | Comment |
|---|---|---|---|
| Facility 1 | 38.47306 | -81.82333 | Amos Plant - affected by CCR and ELG requirements |
| Facility 2 | 40.09273 | -82.0151 | Dresden - in water stressed area due to water quantity concerns. |
| Facility 3 | 36.17861 | -94.73458 | Flint Creek - affected by CCR and ELG requirements |
| Facility 4 | 39.82972 | -80.81528 | Mitchell Plant - affected by CCR and ELG requirements. |
| Facility 5 | 38.97944 | -81.93444 | Mountaineer Plant - affected by CCR and ELG requirements. |
| Facility 6 | 36.42619 | -95.70136 | Northeastern Plant - affected by CCR and ELG requirements. |
| Facility 7 | 32.50722 | -94.5333 | Pirkey Plant - affected by CCR and ELG requirements. |
| Facility 8 | 37.92556 | -87.03722 | Rockport Plant - affected by CCR and ELG requirements. |
| Facility 9 | 35.10228 | -98.35228 | Southwestern Plant - in water stressed area due to water quantity concerns. |
| Facility 10 | 33.05475 | -94.84116 | Welsh Plant - affected by CCR and ELG requirements. |

# SW2.1

**(SW2.1) Please propose any mutually beneficial water-related projects you could collaborate on with specific CDP supply chain members.**

# SW2.2

**(SW2.2) Have any water projects been implemented due to CDP supply chain member engagement?**

No

# SW3.1

**(SW3.1) Provide any available water intensity values for your organization's products or services.**

**Product name**

Electricity

**Water intensity value**

78.5

**Numerator: Water aspect**

Water withdrawn

**Denominator**

MWh

**Comment**

Value is for regulated steam electric facilities owned and operated by AEP (m3/netMWh).

**Product name**

Electricity

**Water intensity value**

75

**Numerator: Water aspect**

Water withdrawn

**Denominator**

Total net MWh for entire regulated AEP generation fleet (steam , wind, solar and hydroelectric).

### Comment

Value is for the entire regulated AEP generation fleet, including steam electric, wind, solar and hydroelectric (m3/net MWh).

### Product name

Electricity

### Water intensity value

2.95

### Numerator: Water aspect

Water consumed

### Denominator

MWh

### Comment

Value is for regulated steam electric facilities owned and operated by AEP (m3/ MWh).

# Submit your response

### In which language are you submitting your response?

English

### Please confirm how your response should be handled by CDP

| | I understand that my response will be shared with all requesting stakeholders | Response permission |
|---|---|---|
| Please select your submission options | Yes | Public |

### Please confirm below

I have read and accept the applicable Terms