



Pinnacle West Capital Corporation

2024 CDP Corporate Questionnaire 2024

Word version

Important: this export excludes unanswered questions

This document is an export of your organization's CDP questionnaire response. It contains all data points for questions that are answered or in progress. There may be questions or data points that you have been requested to provide, which are missing from this document because they are currently unanswered. Please note that it is your responsibility to verify that your questionnaire response is complete prior to submission. CDP will not be liable for any failure to do so.

[Terms of disclosure for corporate questionnaire 2024 - CDP](#)

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C1. Introduction

(1.1) In which language are you submitting your response?

Select from:

☒ English

(1.2) Select the currency used for all financial information disclosed throughout your response.

Select from:

☒ USD

(1.3) Provide an overview and introduction to your organization.

(1.3.2) Organization type

Select from:

☒ Publicly traded organization

(1.3.3) Description of organization

Pinnacle West Capital Corporation ("the Company"), an energy holding company based in Phoenix, has consolidated assets of over 24 billion, about 6,400 megawatts of generating capacity and nearly 5,900 employees in Arizona and New Mexico. Through its principal subsidiary, Arizona Public Service Company ("APS"), the Company provides retail electricity service to approximately 1.4 million Arizona homes and businesses. This report contains forward-looking statements based on current expectations. These forward-looking statements are often identified by words such as "estimate," "predict," "may," "believe," "plan," "expect," "require," "intend," "assume," "project," "anticipate," "goal," "seek," "strategy," "likely," "should," "will," "could," and similar words. Because actual results may differ materially from expectations, we caution readers not to place undue reliance on these statements. A number of factors could cause future results to differ materially from historical results, or from outcomes currently expected or sought by Pinnacle West or APS. A discussion of some of these risks and uncertainties is contained in the Pinnacle West/APS Annual Report on Form 10-K for the fiscal year ended December 31, 2023; the Form 10-Qs for the quarters ended March 31, 2024, and June 30, 2024; and on our website, at PinnacleWest.com, which readers should review carefully before placing any reliance on disclosures set forth in this report. We assume no obligation to update any forward-looking statements, even if our internal estimates change, except as may be required by applicable law.

[Fixed row]

(1.4) State the end date of the year for which you are reporting data. For emissions data, indicate whether you will be providing emissions data for past reporting years.

	End date of reporting year	Alignment of this reporting period with your financial reporting period	Indicate if you are providing emissions data for past reporting years
	12/31/2023	Select from: ☒ Yes	Select from: ☒ No

[Fixed row]

(1.4.1) What is your organization's annual revenue for the reporting period?

4696000000.00

(1.5) Provide details on your reporting boundary.

	Is your reporting boundary for your CDP disclosure the same as that used in your financial statements?
	Select from: ☒ Yes

[Fixed row]

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

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ Yes

(1.6.2) Provide your unique identifier

US7234841010

ISIN code - equity

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ Yes

(1.6.2) Provide your unique identifier

US7234841010

CUSIP number

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ Yes

(1.6.2) Provide your unique identifier

723484

Ticker symbol

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ Yes

(1.6.2) Provide your unique identifier

PNW

SEDOL code

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ No

LEI number

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ Yes

(1.6.2) Provide your unique identifier

TWSEY0NEDUDCKS27AH81

D-U-N-S number

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ Yes

(1.6.2) Provide your unique identifier

006901995

Other unique identifier

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ No

[Add row]

(1.7) Select the countries/areas in which you operate.

Select all that apply

☒ United States of America

(1.8) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?	Comment
	Select from: ☒ Yes, for all facilities	See information in 1.8.1

[Fixed row]

(1.8.1) Please provide all available geolocation data for your facilities.

Row 1

(1.8.1.1) Identifier

Palo Verde Generating Station

(1.8.1.2) Latitude

33.39528

(1.8.1.3) Longitude

-112.858333

(1.8.1.4) Comment

Nuclear power generation

Row 2

(1.8.1.1) Identifier

Redhawk Power Plant

(1.8.1.2) Latitude

33.33623

(1.8.1.3) Longitude

-112.840533

(1.8.1.4) Comment

Natural gas generation

Row 3

(1.8.1.1) Identifier

West Phoenix Power Plant

(1.8.1.2) Latitude

33.44028

(1.8.1.3) Longitude

-112.162777

(1.8.1.4) Comment

Natural gas generation

Row 4

(1.8.1.1) Identifier

Ocotillo Power Plant

(1.8.1.2) Latitude

33.42889

(1.8.1.3) Longitude

-111.910277

(1.8.1.4) Comment

Natural gas generation

Row 5

(1.8.1.1) Identifier

Sundance Power Plant

(1.8.1.2) Latitude

32.92794

(1.8.1.3) Longitude

-111.588993

(1.8.1.4) Comment

Natural gas generation

Row 6

(1.8.1.1) Identifier

Saguaro Power Plant

(1.8.1.2) Latitude

32.5539

(1.8.1.3) Longitude

-111.299829

(1.8.1.4) Comment

Natural gas generation

Row 7

(1.8.1.1) Identifier

Cholla Power Plant

(1.8.1.2) Latitude

34.94065

(1.8.1.3) Longitude

-110.299623

(1.8.1.4) Comment

Coal generation

Row 8

(1.8.1.1) Identifier

Four Corners Power Plant

(1.8.1.2) Latitude

36.68501

(1.8.1.3) Longitude

-108.479176

(1.8.1.4) Comment

Coal generation

[Add row]

(1.16) In which part of the electric utilities value chain does your organization operate?

Electric utilities value chain

☒ Distribution

- ☒ Electricity generation
- ☒ Electricity purchasing
- ☒ Transmission

Other divisions

- ☒ Battery storage
- ☒ Microgrids
- ☒ Smart grids/demand response

(1.16.1) For your electricity generation activities, provide details of your nameplate capacity and electricity generation specifics for each technology employed.

Coal - Hard

(1.16.1.1) Own or control operations which use this power generation source

Select from:

- ☒ Yes

(1.16.1.2) Nameplate capacity (MW)

1357

(1.16.1.3) Gross electricity generation (GWh)

7073

(1.16.1.4) Net electricity generation (GWh)

6498

(1.16.1.5) Comment

Information reported is for the APS-owned share of generation

Lignite

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☒ No

Oil

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☒ Yes

(1.16.1.2) Nameplate capacity (MW)

70

(1.16.1.3) Gross electricity generation (GWh)

0.74

(1.16.1.4) Net electricity generation (GWh)

0.72

(1.16.1.5) Comment

Information reported is for the APS-owned share of generation

Gas

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☒ Yes

(1.16.1.2) Nameplate capacity (MW)

3503

(1.16.1.3) Gross electricity generation (GWh)

9314

(1.16.1.4) Net electricity generation (GWh)

9057

(1.16.1.5) Comment

Information reported is for the APS-owned share of generation

Sustainable biomass

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☒ No

Other biomass

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☒ No

Waste (non-biomass)

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☒ No

Nuclear

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☒ Yes

(1.16.1.2) Nameplate capacity (MW)

1146

(1.16.1.3) Gross electricity generation (GWh)

9675

(1.16.1.4) Net electricity generation (GWh)

9173

(1.16.1.5) Comment

Information reported is for the APS-owned share of generation

Fossil-fuel plants fitted with carbon capture and storage

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☒ No

Geothermal

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☒ No

Hydropower

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☒ No

Wind

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☒ No

Solar

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☒ Yes

(1.16.1.2) Nameplate capacity (MW)

415

(1.16.1.4) Net electricity generation (GWh)

(1.16.1.5) Comment

Information reported is for the APS-owned share of generation

Marine**(1.16.1.1) Own or control operations which use this power generation source**

Select from:

☒ No

Other renewable**(1.16.1.1) Own or control operations which use this power generation source**

Select from:

☒ No

Other non-renewable**(1.16.1.1) Own or control operations which use this power generation source**

Select from:

☒ No

Total**(1.16.1.1) Own or control operations which use this power generation source**

Select from:

☒ Yes

(1.16.1.2) Nameplate capacity (MW)

6491

(1.16.1.3) Gross electricity generation (GWh)

26063

(1.16.1.4) Net electricity generation (GWh)

25367

(1.16.1.5) Comment

*Information reported is for the APS-owned share of generation
[Fixed row]*

(1.24) Has your organization mapped its value chain?

(1.24.1) Value chain mapped

Select from:

☒ No, but we plan to do so within the next two years

(1.24.4) Highest supplier tier known but not mapped

Select from:

☒ Tier 1 suppliers

(1.24.8) Primary reason for not mapping your upstream value chain or any value chain stages

Select from:

☒ Not an immediate strategic priority

(1.24.9) Explain why your organization has not mapped its upstream value chain or any value chain stages

Value chain mapping was not identified as an immediate priority.

[Fixed row]

(1.24.1) Have you mapped where in your direct operations or elsewhere in your value chain plastics are produced, commercialized, used, and/or disposed of?

	Plastics mapping	Primary reason for not mapping plastics in your value chain	Explain why your organization has not mapped plastics in your value chain
	<i>Select from:</i> ☒ No, and we do not plan to within the next two years	<i>Select from:</i> ☒ Not an immediate strategic priority	<i>Plastics were not identified as an immediate priority.</i>

[Fixed row]

C2. Identification, assessment, and management of dependencies, impacts, risks, and opportunities

(2.1) How does your organization define short-, medium-, and long-term time horizons in relation to the identification, assessment, and management of your environmental dependencies, impacts, risks, and opportunities?

Short-term

(2.1.1) From (years)

0

(2.1.3) To (years)

1

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Short-term horizons are used to plan for the upcoming fiscal year to track to short-term goals from each Business Unit. Emergent risks are often identified in short-term time horizons with ultimate longer-term implications.

Medium-term

(2.1.1) From (years)

1

(2.1.3) To (years)

5

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Medium-term horizons are typically used for the business planning process and by the Integrated Resource Planning team.

Long-term

(2.1.1) From (years)

5

(2.1.2) Is your long-term time horizon open ended?

Select from:

☒ No

(2.1.3) To (years)

30

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Long-term horizons are used by the Integrated Resource Planning team, Enterprise Risk Management and Corporate Strategy to ensure the business is planning for and assessing future risks and opportunities, and to support a sustainable future for Arizona.

[Fixed row]

(2.2) Does your organization have a process for identifying, assessing, and managing environmental dependencies and/or impacts?

	Process in place	Primary reason for not evaluating dependencies and/or impacts	Explain why you do not evaluate dependencies and/or impacts and describe any plans to do so in the future
	Select from: ☒ Yes	Select from: ☒ Not an immediate strategic priority	Determined to not be an immediate priority.

[Fixed row]

(2.2.1) Does your organization have a process for identifying, assessing, and managing environmental risks and/or opportunities?

	Process in place	Risks and/or opportunities evaluated in this process
	Select from: ☒ Yes	Select from: ☒ Both risks and opportunities

[Fixed row]

(2.2.2) Provide details of your organization’s process for identifying, assessing, and managing environmental dependencies, impacts, risks, and/or opportunities.

Row 1

(2.2.2.1) Environmental issue

Select all that apply
☒ Climate change

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply
☒ Risks
☒ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

- ☒ Direct operations
- ☒ Upstream value chain
- ☒ Downstream value chain

(2.2.2.4) Coverage

Select from:

- ☒ Full

(2.2.2.7) Type of assessment

Select from:

- ☒ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

- ☒ More than once a year

(2.2.2.9) Time horizons covered

Select all that apply

- ☒ Short-term
- ☒ Medium-term
- ☒ Long-term

(2.2.2.10) Integration of risk management process

Select from:

- ☒ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

- ☒ Not location specific

(2.2.2.12) Tools and methods used

Enterprise Risk Management

- ☒ Enterprise Risk Management
- ☒ Internal company methods
- ☒ Other enterprise risk management, please specify :Internal system based on ISO 31000 and COSO principles

International methodologies and standards

- ☒ Other international methodologies and standards, please specify :Internal system based on ISO 14001 principles

Other

- ☒ External consultants

(2.2.2.13) Risk types and criteria considered

Acute physical

- ☒ Drought
- ☒ Heat waves
- ☒ Heavy precipitation (rain, hail, snow/ice)
- ☒ Storm (including blizzards, dust, and sandstorms)
- ☒ Wildfires

Chronic physical

- ☒ Heat stress
- ☒ Water stress
- ☒ Temperature variability
- ☒ Water quality at a basin/catchment level
- ☒ Precipitation or hydrological variability
- ☒ Water availability at a basin/catchment level

Policy

- ☒ Changes to national legislation

Market

- ☒ Availability and/or increased cost of raw materials
- ☒ Changing customer behavior

Reputation

- ☒ Impact on human health
- ☒ Negative press coverage related to support of projects or activities with negative impacts on the environment (e.g. GHG emissions, deforestation & conversion, water stress)
- ☒ Stakeholder conflicts concerning water resources at a basin/catchment level

Technology

- ☒ Transition to lower emissions technology and products

Liability

- ☒ Exposure to litigation

(2.2.2.14) Partners and stakeholders considered

Select all that apply

- | | |
|---|---|
| ☒ NGOs | ☒ Regulators |
| ☒ Customers | ☒ Local communities |
| ☒ Employees | |
| ☒ Investors | |
| ☒ Suppliers | |

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

- ☒ No

(2.2.2.16) Further details of process

The Enterprise Risk Management (ERM) department facilitates the establishment and implementation of governance over process(es) related to identifying, assessing and reporting material risks inherent to the Company's business, including both physical and transitional climate-related risks. Risks are identified, defined, assessed and prioritized based on the likelihood and impact of their occurrence. Due to the complexity of operational, financial and regulatory environments, APS has numerous risk objectives and obligations, which are addressed by policies, controls, processes and programs. Risks are identified, defined, assessed and mitigated at an asset level. APS identifies and assesses climate-related risks in a manner consistent with our overall enterprise risk management framework. The ERM framework is a depiction of how the Company identifies, assesses, mitigates and controls risks. The ERM process is one of the Company's efforts within this framework. The ERM process at APS is a formal process by which Business Units and the ERM group support the Executive Risk Committee (ERC) as it carries out responsibilities set forth in the ERC charter. This includes the following and includes climate-related risks: No less than annually, the ERC, in conjunction with the ERM group develops an enterprise risk management profile of the organization based on risk identification and assessments from the organization's Business Units and ERM group. The chairperson of the ERC or his designee presents that profile to the Chairman of the Board & Chief Executive Officer. No less than annually, the ERC presents highly critical risks to the Board of Directors. No less than quarterly, or as often as the Chairperson determines to be necessary, the Business Unit, which is assigned ownership of the risk, with support from the ERM group, reviews and monitors relevant material organizational risks with members, participants and delegates of the ERC. Business Units maintain an inventory of their most significant short-term, medium-term, and long-term risks and associated risk response plans. On an annual basis, Business Units record this information in a prescribed format, for analysis, categorization and prioritization of risks to support development of an enterprise risk profile. Risk prioritization can include an assessment of likelihood, impact, risk direction, velocity, external evidence, feasibility and cost of mitigation. Quantitative correlation analysis is used for Company projects and business scenarios to provide probability distributions of cost contingencies and schedule uncertainties for multiple risk drivers. Additionally, the Company utilizes qualitative analysis through periodic risk workshops, focusing on risk drivers, potential consequences and existing mitigation efforts. The ERM process receives input from and provides output to the execution and implementation of the Company's risk policies and controls, the business planning process and Business Units' specific risk management programs. However, the ERM process does not direct or control these policies, processes or programs, as they are exclusively within the control and purview of the responsible Business Units.

Row 2

(2.2.2.1) Environmental issue

Select all that apply

☒ Water

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☒ Risks

☒ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

- ☒ Direct operations
- ☒ Upstream value chain
- ☒ Downstream value chain

(2.2.2.4) Coverage

Select from:

- ☒ Full

(2.2.2.7) Type of assessment

Select from:

- ☒ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

- ☒ More than once a year

(2.2.2.9) Time horizons covered

Select all that apply

- ☒ Short-term
- ☒ Medium-term
- ☒ Long-term

(2.2.2.10) Integration of risk management process

Select from:

- ☒ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

- ☒ Not location specific

(2.2.2.12) Tools and methods used

Enterprise Risk Management

- ☒ Enterprise Risk Management
- ☒ Internal company methods
- ☒ Other enterprise risk management, please specify :Internal system based on ISO 31000 and COSO principles

International methodologies and standards

- ☒ Other international methodologies and standards, please specify :Internal system based on ISO 14001 principles

Other

- ☒ External consultants

(2.2.2.13) Risk types and criteria considered

Acute physical

- ☒ Drought
- ☒ Heat waves
- ☒ Heavy precipitation (rain, hail, snow/ice)
- ☒ Storm (including blizzards, dust, and sandstorms)
- ☒ Wildfires

Chronic physical

- ☒ Water stress
- ☒ Groundwater depletion
- ☒ Temperature variability
- ☒ Water quality at a basin/catchment level
- ☒ Water availability at a basin/catchment level

- ☒ Precipitation or hydrological variability

Policy

- ☒ Changes to national legislation
- ☒ Increased pricing of water

Market

- ☒ Availability and/or increased cost of raw materials
- ☒ Changing customer behavior

Reputation

- ☒ Impact on human health
- ☒ Negative press coverage related to support of projects or activities with negative impacts on the environment (e.g. GHG emissions, deforestation & conversion, water stress)
- ☒ Stakeholder conflicts concerning water resources at a basin/catchment level

Technology

- ☒ Transition to water efficient and low water intensity technologies and products

Liability

- ☒ Exposure to litigation

(2.2.2.14) Partners and stakeholders considered

Select all that apply

- | | |
|---|--|
| ☒ NGOs | ☒ Regulators |
| ☒ Customers | ☒ Local communities |
| ☒ Employees | ☒ Water utilities at a local level |
| ☒ Investors | |
| ☒ Suppliers | |

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

☒ No

(2.2.2.16) Further details of process

The Enterprise Risk Management (ERM) department facilitates the establishment and implementation of governance over process(es) related to for the identifying, assessing and reporting material risks inherent to the Company's business, including water related risks. Risks are identified, defined, assessed, and prioritized based on the likelihood and impact of their occurrence. Due to the complexity of operational, financial, and regulatory environments, APS has numerous risk objectives and obligations, which are addressed by policies, controls, processes and programs. Risks are identified, defined, assessed, and mitigated at an asset level. APS identifies and assesses water-related risks in a manner consistent with our overall enterprise risk management framework. The ERM process is one of the Company's efforts within this framework. Business Units maintain an inventory of their most significant short-term, medium-term, and long-term risks and associated risk response plans. This includes significant risks on our direct operations as well as our upstream and downstream value chains. On an annual basis, Business Units record this information in a prescribed format, for analysis, categorization, and prioritization of risks to support development of an enterprise risk profile. Risk prioritization can include an assessment of likelihood, impact, risk direction, velocity, external evidence, feasibility and cost of mitigation. Quantitative correlation analysis is used for Company projects and business scenarios to provide probability distributions of cost contingencies and schedule uncertainties for multiple risk drivers. Additionally, the Company utilizes qualitative analysis through periodic risk workshops, focusing on risk drivers, potential consequences, and existing mitigation efforts. These types of sensitivity analyses are used to identify factors affecting the budget and timing of projects, leading to more effective and efficient mitigation strategies. The ERM process receives input from and provides output to the execution and implementation of the Company's risk policies and controls, the business planning process and Business Units' specific risk management programs. However, the ERM process does not direct or control these policies, processes, or programs, as they are exclusively within the control and purview of the responsible Business Units. Risks (including water risk) are reported to shareholders and other stakeholders through Pinnacle West's Form 10-K and Corporate Responsibility Report, and to regulators via annual reporting. Risk is assessed quarterly and reported to executives on the strategic options roadmap.

[Add row]

(2.2.7) Are the interconnections between environmental dependencies, impacts, risks and/or opportunities assessed?

	Interconnections between environmental dependencies, impacts, risks and/or opportunities assessed	Primary reason for not assessing interconnections between environmental dependencies, impacts, risks and/or opportunities	Explain why you do not assess the interconnections between environmental dependencies, impacts, risks and/or opportunities
	Select from: ☒ No	Select from: ☒ Not an immediate strategic priority	Determined not to be an immediate priority.

[Fixed row]

(2.3) Have you identified priority locations across your value chain?

	Identification of priority locations	Primary reason for not identifying priority locations	Explain why you do not identify priority locations
	Select from: ☒ No, but we plan to within the next two years	Select from: ☒ Not an immediate strategic priority	<i>It was not identified as an immediate priority.</i>

[Fixed row]

(2.4) How does your organization define substantive effects on your organization?

Risks

(2.4.7) Application of definition

APS defines substantive or strategic impact to the business based on whether an observed or anticipated effect is large enough to be meaningful within the context of financial, operational, reputational or safety assessments. To determine whether a risk will result in substantive or strategic impact, the Enterprise Risk Management (ERM) department has established a formal process by which Business Units identify and assess risks, including climate-related risks, consistent with our overall enterprise risk framework. The ERM framework is a depiction of how the Company identifies, assesses, mitigates and controls risks. Under the ERM framework, Business Units assign values to each risk for financial, operational, reputational and safety impacts utilizing a 0-4 threshold; levels 3-4 are considered substantive. For financial impact, the thresholds are described as follows: (04) - Major means an impact of greater than 25M; (03) - Significant means an impact between 15M and 25M; (02) - Moderate means an impact between 5M and 15M; (01) - Limited means an impact between 2M and 5M; (00) - Very limited means an impact between 0 and 2M. For operational impact, the thresholds are described as follows: (04) - Major means potential for grid instability leading to large-scale blackouts due to generation or transmission related voltage and frequency instabilities; (03) - Significant means potential for rolling blackouts at times when the demand exceeds supply (large geographical area effects) or an event which has a reasonable probability of significantly negatively impacting the Company's operational objectives; (02) - Moderate means outages arising from a major line or circuit outage impacting greater than 50,000 customers or an event which has a reasonable probability of moderate negative impact to the Company's operational objective; (01) - Limited means local outages caused by pole collapse, pole fires or transformer problems usually impacting a smaller geographical area or an event which has a reasonable probability of limited negative impact to the Company's operational objective. (00) - Very limited means no outages or local outages of a very small duration.

[Add row]

(2.5) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

(2.5.1) Identification and classification of potential water pollutants

Select from:

☒ Yes, we identify and classify our potential water pollutants

(2.5.2) How potential water pollutants are identified and classified

APS has multiple environmental compliance programs that protect water ecosystems and human health from potential water pollutants associated with our business activities. Examples include our National Pollutant Discharge Elimination System (NPDES), Spill Prevention Control, and Countermeasure (SPCC), and Arizona Aquifer Protection Permit compliance programs. NPDES compliance efforts identify and classify potential water pollutants in permitted discharges from our facilities into regulated waterways through internal monitoring of existing pollutants and ensuring that all treatment system discharges comply with permit limits, Pretreatment Local Limits, and/or Surface Water Quality Standards, as applicable. We adhere to Clean Water Act requirements to identify and treat (if present in discharge) conventional pollutants such as BOD, TSS, pH, oil and grease, 65 Priority Pollutants, and 126 Priority Toxic Pollutants.

[Fixed row]

C3. Disclosure of risks and opportunities

(3.1) Have you identified any environmental risks which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

Climate change

(3.1.1) Environmental risks identified

Select from:

☒ Yes, only within our direct operations

(3.1.2) Primary reason why your organization does not consider itself to have environmental risks in your direct operations and/or upstream/downstream value chain

Select from:

☒ Evaluation in progress

Water

(3.1.1) Environmental risks identified

Select from:

☒ Yes, only within our direct operations

(3.1.2) Primary reason why your organization does not consider itself to have environmental risks in your direct operations and/or upstream/downstream value chain

Select from:

☒ Evaluation in progress

(3.1.3) Please explain

APS defines substantive financial or strategic impact to our direct operations and supply chain related to water risk in three ways. First, a physical disruption of a water supply that limited generation at any APS power plant for any period of time would constitute a substantive financial impact on our business. We define substantive impact as any loss of generation capacity (i.e., less than 100%) due to insufficient water supply. If a vital piece of water infrastructure is damaged or becomes inoperable, generation output could be impacted or curtailed entirely, causing substantive financial or strategic harm to the Company and potentially impacting supply chain demand. Second, APS and/or supplier noncompliance with a permit or regulatory requirement could impact production and/or result in notices of violations, litigation and/or penalties, causing substantive harm. Finally, APS and/or supplier water allocation cuts due to water shortages could cause substantive financial or strategic impact to the Company. Loss of suppliers or materials provided by suppliers could significantly disrupt our operations and our ability to serve our customers. An example of a program designed to reduce the probability of water infrastructure failure is our Well and Pumping Equipment Reliability Program. Well infrastructure failure could have a substantive financial impact and/or a production impact, as wells are needed at eight of our nine plants to provide essential water to support generation. To prevent this impact, the Well and Pumping Equipment Reliability Program created redundancy among the fleet, increased frequency of preventive maintenance activities, replaced existing wells with new wells, and increased the frequency of major well rehabilitations. The result is well failures have decreased from 5 per year in 2015 to zero failures impacting plant operations in 2023. Also, if a water shortage impacted an APS supplier, there could be substantive impacts to APS's operations. Water quality and quantity is vital to our direct operations and is considered neutral to our indirect operations.

Plastics

(3.1.1) Environmental risks identified

Select from:

☒ No

(3.1.2) Primary reason why your organization does not consider itself to have environmental risks in your direct operations and/or upstream/downstream value chain

Select from:

☒ Not an immediate strategic priority

(3.1.3) Please explain

Plastics were not identified as an immediate priority.

[Fixed row]

(3.1.1) Provide details of the environmental risks identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.1.1.1) Risk identifier

Select from:

☒ Risk1

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☒ Changes to national legislation

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☒ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☒ United States of America

(3.1.1.9) Organization-specific description of risk

Transition risks that may impact on our operating costs are climate change litigation and legislative/regulatory efforts to limit greenhouse gas (GHG) emissions. The actual impacts to APS depend on a variety of factors, none of which are fully known at this time. Factors include allowable GHG emissions; cost to reduce emissions; how allowable emissions will be allocated to sources; the associated costs; and whether offsets and other measures to moderate the costs of compliance will be available. For numerous years the APS Integrated Resource Plan has included a “cost of carbon,” which is factored into resource allocation decisions to address potential cost to operations. Carbon tax costs are challenging to forecast because the federal government has not reached policy consensus on the magnitude, timing or need for a carbon tax. APS evaluates carbon costs in our resource planning effort, assuming that carbon legislation will occur at the state or federal level and carbon pricing will take effect in 2028 and escalate at the assumed rate of inflation. APS has included the potential for carbon pricing in its 2023 Integrated Resource Plan (IRP). The CO2 cost included in the IRP analysis was based on the California market cap-and-trade 2020 CO2 cost of 25, escalated at 2.5% beginning in 2028. Prior to 2028, APS’s analysis assumed the CO2 cost to be 0. A carbon cost will continue to be integrated into future scenarios as we work with stakeholders on future resource plans.

(3.1.1.11) Primary financial effect of the risk

Select from:

- ☒ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

- ☒ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

- ☒ Likely

(3.1.1.14) Magnitude

Select from:

- ☒ Medium-high

Water

(3.1.1.1) Risk identifier

Select from:

- ☒ Risk3

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

- ☒ Other acute physical risk, please specify :Physical disruption of water supply

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☒ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☒ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☒ Other, please specify :AMAs, Colorado River, San Juan River Basin

(3.1.1.9) Organization-specific description of risk

Well failure is a risk that could disrupt plant production and generate a substantive impact on APS's finances and/or strategy. APS owns and operates 40 production wells that provide cooling water and supplemental water to support generation at plants. APS implemented our Well and Pumping Equipment Reliability Program to identify and mitigate well failure risks. The program consists of well fleet expansion, creating redundancy; well closure/replacement capital projects; improved preventative maintenance program; identifying and stocking critical spare parts for equipment failure replacements; enhanced well efficiency testing and trending (increased frequency from once per year to once per month); rehabilitation of existing wells; and the addition of new equipment to increase well efficiency and reliability. As a result of implementing the program, well failures have decreased from 5 per year in 2015 to zero failures impacting plant operations in 2032. Declaration of shortages on the Colorado River will not have a substantive impact on Arizona power plants, as less than one percent of our Arizona water supply originates in the Colorado River. APS relies on treated effluent for 71% of total water consumption, a renewable and comparably drought-proof water supply. APS continues to develop strategies that reduce water consumption and explore water-saving advanced cooling technologies and the potential for underground storage and recovery of water.

(3.1.1.11) Primary financial effect of the risk

Select from:

☒ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☒ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☒ Unlikely

(3.1.1.14) Magnitude

Select from:

☒ Low

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☒ Other infrastructure, technology and spending, please specify :Well and Pumping Equipment Reliability Program

(3.1.1.29) Description of response

Potential well failures have been identified in previous years. In response, APS devised and implemented the Well and Pumping Equipment Reliability Program to identify and mitigate well failure risks. The program consists of the following components: well fleet expansion, creating redundancy to ensure an unexpected well failure does not impact plant operations; well closure/replacement capital projects (typically for wells greater than 50 years old); an improved preventative maintenance program (monthly and annual maintenance at each site); identifying and stocking critical spare parts for equipment failure replacements; enhanced well efficiency testing and trending (increased frequency from once per year to once per month); rehabilitation of existing wells; and the addition of new equipment to increase well efficiency and reliability, such as Variable Frequency Drives and automated oilers.

Climate change

(3.1.1.1) Risk identifier

Select from:

☒ Risk2

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

- ☒ Changing precipitation patterns and types (rain, hail, snow/ice)

(3.1.1.4) Value chain stage where the risk occurs

Select from:

- ☒ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

- ☒ United States of America

(3.1.1.9) Organization-specific description of risk

The risk of a reduction in available water supply is an example of a risk that has a potential financial impact requiring increased capital expenditures. The risk of reduction in water supply is driven by changes in precipitation patterns and extreme variability in weather patterns which can create the physical conditions leading to drought. Since water can be a scarce resource in the Southwest, any change in precipitation or extended droughts driven by climate change brings with it inherent risks for APS and could materially impact on our business and operations. However, since its inception over a century ago, APS has been diligent and forward-looking in its efforts to find and secure sufficient water for current and future power generation. APS has an entire Business Unit dedicated to assessing and addressing our current and future water needs. Water risk has been considered in our Enterprise Risk Management (ERM) process based on assessments conducted by the Business Unit manager and the ERM group. The risk is recorded and monitored to determine the magnitude of the risk and the associated mitigated measures.

(3.1.1.11) Primary financial effect of the risk

Select from:

- ☒ Increased capital expenditures

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

- ☒ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☒ Likely

(3.1.1.14) Magnitude

Select from:

☒ Medium-high

Water

(3.1.1.1) Risk identifier

Select from:

☒ Risk4

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☒ Other policy risk, please specify :Regulatory

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☒ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☒ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☒ Other, please specify :AMAs, Colorado River and San Juan River Basin

(3.1.1.9) Organization-specific description of risk

If a permit requirement is exceeded, a notice of violation could be issued that may include monetary fines and substantive changes in our business practices. In an extreme case, there is a risk of injunction to cease generation and correct the cause of the violation. To avoid this risk, APS implemented an initiative to focus on building a comprehensive, controlled and structured body of Company policies, processes and procedures. This action was to ensure APS has documented its regulatory requirements in a manner that facilitates regulatory compliance. There are multiple requirements that need to be tracked; therefore, referring to these documents helps new and existing employees to ensure that permit requirements are tracked properly and not exceeded. For example, several plants have annual groundwater allotments that cannot be exceeded. APS is required to monitor and report each plant's annual groundwater use. If overdrawn, APS would be subject to penalties as identified above; therefore, a Company procedure was written to detail how to properly calculate and report groundwater usage to the state, as required by statute.

(3.1.1.11) Primary financial effect of the risk

Select from:

☒ Decreased revenues due to reduced production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☒ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☒ Unlikely

(3.1.1.14) Magnitude

Select from:

☒ Low

(3.1.1.26) Primary response to risk

Policies and plans

☒ Other policies or plans, please specify :Processes, procedures, and policies

(3.1.1.29) Description of response

APS understands permit limits and conditions and tracks regulatory commitments in the Enviance database. This ensures that such commitments are understood and completed, as required. The Enviance database is an especially useful tool for tracking reporting deadlines. All reporting requirements have been entered into the Enviance system, which reminds APS when a deadline is approaching. This allows Water Resource Management adequate time to compile and report the required information on time. Examples of reporting deadlines we track in Enviance include Arizona Department of Water Resources annual reports for all our water rights within the active management areas, New Mexico Office of the State Engineer's report for Four Corners Power Plant water use, and the United States Bureau of Reclamation reporting for Yucca Power Plant.

Water

(3.1.1.1) Risk identifier

Select from:

☒ Risk5

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☒ Statutory water withdrawal limits/changes to water allocation

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☒ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☒ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☒ Other, please specify :AMA, Colorado River and San Juan Basin

(3.1.1.9) Organization-specific description of risk

A significant risk is the potential for the U.S. Bureau of Reclamation to declare a formal water shortage on the Colorado River, based on the levels in Lake Mead; and/or surface water disputes impacting access to water resources relied upon to support generation at APS power plants. In the event of a water shortage, insufficient water supplies may limit our ability to produce the power needed to meet customer demand, impacting reliable service for our customers and a potential loss of revenue. APS mitigates the risk of water shortages by maintaining contingent water supplies, investigating water storage, and acquiring groundwater rights for use in shortage circumstances. APS has also investigated the possibility of acquiring land for storing water in underground storage facilities for use when other supplies are threatened by drought. APS works with state and local government agencies as well as water providers in Arizona and other states to manage these risks. Due to possibility of drought, surface water supplies are the most at-risk water supply and are managed closely. APS has agreements to mitigate drought conditions at plants that rely on surface water and has acquired permits that exceed the water needed to support maximum generation. Treated effluent is the most drought proof supply we have, which provided 71% of our water supply in 2023.

(3.1.1.11) Primary financial effect of the risk

Select from:

☒ Decreased revenues due to reduced production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☒ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☒ Unlikely

(3.1.1.14) Magnitude

Select from:

☒ Low

(3.1.1.26) Primary response to risk

Policies and plans

- ☒ Develop drought emergency plans

(3.1.1.29) Description of response

We are mitigating the risk of statutory water withdrawal limits and changes to water allocation that could adversely impact APS operations through participation in regional strategic planning activities (Colorado River Basin Drought Contingency Plan), provision of primary and secondary water supplies at power plants, and creation of severance and transfer agreements (Cholla). APS has purchased water contingency contracts to deal with shortages. APS has agreements to mitigate drought conditions at plants that rely on surface water and has acquired permits that exceed the water needed to support generation at maximum capacity. Treated effluent is the most drought-proof supply we have, which provided 71% of our water supply in 2023. APS is also investigating water storage and groundwater rights acquisition for use during declared water shortages as a risk mitigation strategy. APS has evaluated the possibility of storing water in underground storage facilities for use when other supplies are threatened by drought. Additionally, we collaborate with state and local government agencies and work water providers in Arizona and neighboring states to manage these risks.

Water

(3.1.1.1) Risk identifier

Select from:

- ☒ Risk6

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

- ☒ Changing precipitation patterns and types (rain, hail, snow/ice)

(3.1.1.4) Value chain stage where the risk occurs

Select from:

- ☒ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☒ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☒ Other, please specify :AMAs, Colorado River and San Juan River Basin

(3.1.1.9) Organization-specific description of risk

One of the largest physical risks driven by change in physical climate parameters is water supply, which may result in increasing capital expenditures to address this risk. Since water can be a scarce resource in the Southwest, any change in precipitation or extended droughts driven by climate change bring with it inherent risks for APS and could materially impact on our business and operations. However, since its inception over a century ago, APS has been diligent and forward-looking in its efforts to find and secure sufficient water for current and future power generation. APS has an entire business unit, Water Resource Management, dedicated to assessing and addressing our current and future water needs. Water risk is considered in our Enterprise Risk Management (ERM) process based on assessments conducted by the business unit manager and the ERM group. The risk is recorded and monitored to determine the magnitude of the risk and the associated mitigated measures.

(3.1.1.11) Primary financial effect of the risk

Select from:

☒ Increased capital expenditures

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☒ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☒ Likely

(3.1.1.14) Magnitude

Select from:

☒ Medium-high

(3.1.1.26) Primary response to risk

Policies and plans

☒ Other policies or plans, please specify :Create Water Resource Management Department

(3.1.1.29) Description of response

Because water supplies are so integral to the operations at APS, we have an entire Water Resource Management (“WRM”) department comprised of six employees. This management team assesses and manages current as well as future risk associated with drought and extreme weather. APS has identified both primary water supplies and contingencies for each power plant in order to ensure reliable long-term operation, even in times of possible shortage, such as extended drought. APS owns and operates 40 production wells that provide cooling water and supplemental water to support generation at eight of nine power plants. Unplanned well and pumping equipment failures can occur as a result of many factors, examples include but are not limited to pumping equipment failure, electrical/mechanical issues, and well casing problems. These failures disrupt scheduled maintenance plans, result in unplanned/unbudgeted costs, and could result in loss of water necessary to support generation. The reliability rate in 2015 was 90%, equating to 5 unplanned failures. In 2023, the reliability rate increased to 99%. It is WRM’s goal to achieve 100% reliability in future years.

[Add row]

(3.2) Within each river basin, how many facilities are exposed to substantive effects of water-related risks, and what percentage of your total number of facilities does this represent?

Row 1

(3.2.1) Country/Area & River basin

United States of America

☒ Other, please specify :Phoenix Active Management Area

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☒ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

4

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☒ 26-50%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☒ 71-80%

(3.2.11) Please explain

The Phoenix AMA includes Palo Verde Generating Station, Redhawk Power Plant, West Phoenix Power Plant, and Ocotillo Power Plant

Row 2

(3.2.1) Country/Area & River basin

United States of America

☒ Other, please specify :Pinal Active Management Area (AMA)

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☒ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☒ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☒ 1-10%

(3.2.11) Please explain

The Pinal AMA includes Sundance Power Plant

Row 3

(3.2.1) Country/Area & River basin

United States of America

☒ Other, please specify :Tucson Active Management Area (AMA)

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☒ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☒ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☒ 1-10%

(3.2.11) Please explain

The Tucson AMA includes Saguaro Power Plant

Row 4

(3.2.1) Country/Area & River basin

United States of America

☒ Other, please specify :Joseph City Irrigation Non-expansion Area (INA)

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☒ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☒ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☒ 1-10%

(3.2.11) Please explain

The Joseph City INA includes the Cholla Power Plant

Row 5

(3.2.1) Country/Area & River basin

United States of America

☒ Other, please specify :San Juan River Basin

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☒ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☒ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☒ 11-20%

(3.2.11) Please explain

The San Juan River Basin includes the Four Corners Power Plant

Row 6

(3.2.1) Country/Area & River basin

United States of America

☒ Other, please specify :Colorado River

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☒ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☒ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☒ 1-10%

(3.2.11) Please explain

The Colorado River Basin includes the Yucca Power Plant

[Add row]

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

	Water-related regulatory violations	Comment
	Select from: ☒ No	No fines or significant enforcement actions received

[Fixed row]

(3.5) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Select from:

☒ Yes

(3.5.1) Select the carbon pricing regulation(s) which impact your operations.

Select all that apply

☒ California CaT - ETS

(3.5.2) Provide details of each Emissions Trading Scheme (ETS) your organization is regulated by.

California CaT - ETS

(3.5.2.1) % of Scope 1 emissions covered by the ETS

2.61

(3.5.2.2) % of Scope 2 emissions covered by the ETS

0

(3.5.2.3) Period start date

01/01/2023

(3.5.2.4) Period end date

12/31/2023

(3.5.2.5) Allowances allocated

322000

(3.5.2.6) Allowances purchased

322000

(3.5.2.7) Verified Scope 1 emissions in metric tons CO2e

277592

(3.5.2.8) Verified Scope 2 emissions in metric tons CO2e

0

(3.5.2.9) Details of ownership

Select from:

☒ Facilities we own and operate

(3.5.2.10) Comment

Facilities we own and operate

[Fixed row]

(3.5.4) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Since 2012, we have had policies and procedures in place to track and monitor our obligations and allowances, related to the net imports into the state of California, to comply with California's AB-32 cap-and-trade program. The Risk Management group compares obligations and allowances weekly in accordance with our internal GHG Hedge Policy to ensure APS is able to fulfil our Compliance Requirements of the GHG Allowance Process. Additionally, our Back Office Settlements team

tracks allowances using the Compliance Instrument Tracking System Service (CITSS) system monthly to validate APS emissions transactions are accurately and completely captured, inventoried, and settled ensuring compliance with the requirements of the Western Climate Initiative cap-and-trade Programs. CITSS tracks compliance instruments (emissions allowances and offsets) from the point of issuance by jurisdictional governments, to ownership, transfer by regulated greenhouse gas emitters and other voluntary or general market participants, and to final compliance retirement. This strategy has kept us in compliance with our participation in the California cap-and-trade program. Timescale of implementation for this strategy is immediate and will continue as long as we are participating in the California market.

(3.6) Have you identified any environmental opportunities which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

	Environmental opportunities identified
Climate change	Select from: ☒ Yes, we have identified opportunities, and some/all are being realized
Water	Select from: ☒ Yes, we have identified opportunities, and some/all are being realized

[Fixed row]

(3.6.1) Provide details of the environmental opportunities identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.6.1.1) Opportunity identifier

Select from:
☒ Opp1

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Energy source

☒ Other energy source opportunity, please specify :Supportive policy incentives

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☒ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☒ United States of America

(3.6.1.8) Organization specific description

The energy efficiency standard (EES) set by the Arizona Corporation Commission, required utilities to achieve cumulative savings equivalent to 22% of 2020 retail sales. In 2021, APS reached compliance with the 22% cumulative savings goal. In the 2022 Demand Side Management (DSM) Plan, the ACC established a goal for APS to achieve annual incremental savings of 405,002 MWh from approved DSM programs in 2022. APS was able to deliver over 87% of this annual savings goal by achieving savings of 354,153 MWh. In 2023, APS exceeded the 2022 approved DSM savings goal by achieving 408,644 MWh of savings. That is enough energy to power more than 29,700 typical Arizona households for an entire year. Since 2005, the lifetime energy savings from our energy efficiency programs have avoided approximately 27.5 million metric tons of carbon emissions. There is a cost to implement DSM programs, but ultimately the savings from DSM potentially reduce our indirect (operating) costs by helping to reduce demand on our fleet. APS offers a comprehensive portfolio of DSM programs to achieve the required EES. The APS DSM portfolio also includes a focus on demand response, load shifting, energy storage and load management programs designed to help flatten system load shapes and shift energy use into the middle of the day during peak solar production when APS's generation mix has the lowest carbon intensity.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☒ Reduced indirect (operating) costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☒ Short-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☒ Virtually certain (99–100%)

(3.6.1.12) Magnitude

Select from:

☒ High

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Each year APS files a Demand Side Management (DSM) implementation plan with the Arizona Corporation Commission (ACC) that includes detailed information about DSM program goals, estimated participation, energy savings, emissions reductions and proposed budgets. Since program inception, this investment has created almost 1.3 billion of net benefits (present value of societal benefits created by avoiding energy generation less the present value of societal costs from installing energy efficient measures) for APS customers. The APS DSM portfolio is measured for cost effectiveness using the Societal Cost Test. These net benefits are the result of avoided generation capacity, fuel savings and operations and maintenance savings due to APS DSM programs. These net benefits do not include any monetary value for the carbon emission savings resulting from programs – these savings are quantified but not monetized. Based on portfolio cost effectiveness results reported to the Arizona Corporation Commission, the APS DSM portfolio has produced over 1.35 billion in net benefits (total benefits minus costs) for APS customers from 2005-2023. Of the 1.35 billion, 515.9 million in benefits result from implemented residential energy efficiency programs, 854.6 million is in benefits result from implemented business energy efficiency programs, 76 million in net benefits result from additional DSM initiatives including Demand Response, Energy Storage and Load Management programs, Managed EV Charging Pilot, Energy and Demand Education, tribal communities and codes and standards, less 96.6 million from measurement evaluation and research and performance incentives. Energy efficiency measures implemented by our customers in 2023, totaling 408,644 MWh annual savings, contributed 97 million net benefits to the over 1.25 billion in net benefits from 2005-2022.

(3.6.1.26) Strategy to realize opportunity

During the time period from 2005 through 2023, APS spent a total of over 871.2 million in customer-focused demand side management (DSM) programs and expenses. This investment has created over 1.35 billion of net economic benefits (present value of societal benefits created by avoiding energy generation less the present value of societal costs from installing energy efficient measures) for APS customers. Of the 871.2 million in program to date expenses, 365.5 million was for the implementation of residential energy efficiency program, 318.7 million for the implementation of non-residential programs, 90.4 million for other initiatives including Demand Response, Energy Storage and Load Management programs, Managed EV Charging Pilot, Energy and Demand Education, tribal communities and codes and standards, 34.2 million for measurement, evaluation, and research, and 62.4 million for performance incentives. Each year APS files an annual DSM implementation plan with the Arizona Corporation Commission for approval that includes detailed information about DSM program goals, estimated participation, energy savings, emissions reductions and proposed budgets.

Water

(3.6.1.1) Opportunity identifier

Select from:

☒ Opp4

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

☒ Other resource efficiency opportunity, please specify :Improved water efficiency in operations

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☒ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☒ United States of America

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☒ Other, please specify :AMAs, Colorado River, San Juan River

(3.6.1.8) Organization specific description

Natural gas and solar generation are more water efficient than coal generation. Accordingly, APS's closure of coal units at Cholla and Four Corners has resulted in the reduction of water consumption by approximately 20%. APS's coal-fired Cholla Power Plant is projected to retire in 2025, which is projected to further reduce water consumption from coal-fired generation by another 20%. Cholla Unit 4 (380 MWe of output capacity), owned by PacifiCorp but operated by APS, was retired at the end of 2020 and Units 1 and 3 (387 MWe of output capacity) will be retired in 2025. Additionally, APS has announced its exit from coal-fired generation at the Four Corners Power Plant by 2031, seven years sooner than originally projected. APS operates Four Corners and owns 63% of its generation. The shift in load from

coal to natural gas will result in significant water savings, as the water intensity (gallons/megawatt hour) at gas plants is less than half of coal plant water intensity. Energy efficiency programs will reduce customer demand for energy, and continued development of renewable energy such as solar and wind will reduce fleet-wide water intensity. When combined with reduction in coal generation, plus the retirement of steam units at Ocotillo (replaced with more efficient combustion turbines), APS expects fleet-wide water intensity reductions for power provided to APS customers of approximately 50% from 2020 levels by 2035.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☒ Reduced indirect (operating) costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☒ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☒ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☒ Medium-low

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☒ Opp2

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Energy source

- ☒ Use of low-carbon energy sources

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

- ☒ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

- ☒ United States of America

(3.6.1.8) Organization specific description

In January 2020, APS announced its Clean Energy Commitment, an aspirational goal to provide 100% clean, carbon-free electricity by 2050 with a nearer-term 2030 target of achieving a resource mix that is 65% clean energy, with 45% of our generation portfolio coming from renewable energy. The financial impacts of increasing renewables as part of our resource mix reduce our exposure to future fossil fuel price increases, as we do not need to purchase additional fossil fuels. The Arizona Corporate Commission (ACC) has adopted a renewable energy standard (RES), in which electric utilities under its jurisdiction must supply an increasing percentage of their retail electric energy sales from eligible renewable resources, including solar, wind, biomass, biogas and geothermal technologies.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

- ☒ Increased diversification of financial assets

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

- ☒ Medium-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

- ☒ Virtually certain (99–100%)

(3.6.1.12) Magnitude

Select from:

☒ High

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☒ Opp3

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Energy source

☒ Use of low-carbon energy sources

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☒ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☒ United States of America

(3.6.1.8) Organization specific description

APS operates a Virtual Power Plant (VPP) in partnership with customers, a network of thousands of customer-owned devices, like smart thermostats and home battery storage, that act as an energy resource and a collaborative way to reduce energy demand at peak times to balance supply and demand. The energy production this connection of smart technology avoids reduces the need to start up or build a traditional, physical power plant. This saves customers' money, protects the environment and increases overall grid reliability.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

- ☒ Reduced indirect (operating) costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

- ☒ Short-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

- ☒ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

- ☒ Medium-high

Water

(3.6.1.1) Opportunity identifier

Select from:

- ☒ Opp5

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

- ☒ Other resource efficiency opportunity, please specify :Improved water efficiency in operations

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☒ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☒ United States of America

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☒ Other, please specify :AMAs, Colorado River, San Juan River

(3.6.1.8) Organization specific description

Alternative cooling technologies: APS retired the older, less efficient steam units at Ocotillo and replaced them with more efficient combustion turbines, cooled by hybrid cooling, which reduced the plant's water consumption significantly. Water intensity has improved from approximately 1,000 g/MWh to 200 g/MWh. Additional efficiencies will be achieved by retiring older water intensive steam units at Cholla by 2025 and replacing them with less water intensive generation sources, or with renewables and energy storage resources that use nominal quantities of water. We project a reduction in water intensity for power provided to APS customers of approximately 50% from 2020 levels by 2035. This reduction in water consumption will reduce the need for water pumping and treatment infrastructure.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☒ Reduced indirect (operating) costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☒ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☒ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☒ Medium-low

Water

(3.6.1.1) Opportunity identifier

Select from:

☒ Opp6

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

☒ Other resource efficiency opportunity, please specify :Improved water efficiency in operations

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☒ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☒ United States of America

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☒ Other, please specify :AMAs, Colorado River, San Juan River

(3.6.1.8) Organization specific description

Infrastructure maintenance and repair: APS established a Well and Pumping Equipment Reliability Program in 2015 that encompasses critical components of the water supply, including groundwater wells, well testing and inspection, pump testing and well infrastructure inspection (including pumps and motors, meters and lubrication systems). Expected improvements to achieve 100% reliability are being tracked. In 2015, APS experienced 5 well failures in one year. With the implementation of the Well and Pumping Equipment Reliability Program, the 2023 reliability rate was 99% and is expected to be 100% in future years. We also perform well testing on all mission critical wells every year to gain information on their efficiency and reliability. This will ensure reliable access to water for uninterrupted power generation to supply our customers.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☒ Reduced indirect (operating) costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☒ Short-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☒ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☒ Low

Water

(3.6.1.1) Opportunity identifier

Select from:

☒ Opp7

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

- ☒ Other resource efficiency opportunity, please specify :Improved water efficiency in operations

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

- ☒ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

- ☒ United States of America

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

- ☒ Other, please specify :AMAs, Colorado River, San Juan River

(3.6.1.8) Organization specific description

Management of pumping is important to ensure that the highest quality water possible is delivered to the plant and is used as efficiently as possible before water needs to be discharged for disposal. It also prevents or minimizes degradation of water quality in the well field area over time because poor quality water that surrounds the pumping area is not drawn toward the pumps as quickly when pumping is reduced. Use of higher quality water reduces treatment and equipment operation and maintenance costs. We have developed three well field operation plans to date, for the Cholla, West Phoenix and Redhawk Power Plants. These plans identify a well ranking system to prioritize which wells should run first, to ensure the best quality is used. This results in reduced water consumption as higher quality water can be cycled more times prior to disposal. These plans are based on reviews of information such as well flow rate (gallons per minute), water quality (total dissolved solids), location, historical pumping, planned maintenance/evaluation schedules and number of years the well has been in service.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

- ☒ Reduced indirect (operating) costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☒ Short-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☒ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☒ Low

[Add row]

C4. Governance

(4.1) Does your organization have a board of directors or an equivalent governing body?

(4.1.1) Board of directors or equivalent governing body

Select from:

☒ Yes

(4.1.2) Frequency with which the board or equivalent meets

Select from:

☒ More frequently than quarterly

(4.1.3) Types of directors your board or equivalent is comprised of

Select all that apply

☒ Executive directors or equivalent

☒ Independent non-executive directors or equivalent

(4.1.4) Board diversity and inclusion policy

Select from:

☒ No

[Fixed row]

(4.1.1) Is there board-level oversight of environmental issues within your organization?

	Board-level oversight of this environmental issue	Primary reason for no board-level oversight of this environmental issue	Explain why your organization does not have board-level oversight of this environmental issue
Climate change	Select from: ☒ Yes	Select from:	Rich text input [must be under 2500 characters]
Water	Select from: ☒ Yes	Select from:	Rich text input [must be under 2500 characters]
Biodiversity	Select from: ☒ No, but we plan to within the next two years	Select from: ☒ Not an immediate strategic priority	Not identified as an immediate priority

[Fixed row]

(4.1.2) Identify the positions (do not include any names) of the individuals or committees on the board with accountability for environmental issues and provide details of the board's oversight of environmental issues.

Climate change

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

- ☒ Board chair
- ☒ Chief Executive Officer (CEO)
- ☒ Board-level committee

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

- ☒ Sporadic – agenda item as important matters arise

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

- ☒ Overseeing the setting of corporate targets
- ☒ Monitoring the implementation of the business strategy
- ☒ Overseeing and guiding major capital expenditures

(4.1.2.7) Please explain

The Nuclear and Operating Committee reviews regular reports from management concerning the Company's environmental, health, and safety policies and practices; monitors the Company's compliance with such policies and applicable laws and regulations; and reviews and discusses with management how the Company can continue to improve its safety practices. The Nuclear and Operating Committee also receives reports on the Company's sustainability initiatives and strategy. In addition, the Board's Corporate Governance and Public Responsibility Committee reviews and assesses the Corporate Governance Guidelines, reviews significant sustainability trends that may impact the Company, ensuring the oversight of relevant issues by the Board and its committees, and makes recommendations to the Board as appropriate, and directly oversees climate change related issues and the Company's strategies in response to those issues. The Enterprise Risk Management group reports to the Company's Vice President, Controller and Chief Accounting Officer. The internal group is responsible for implementing a consistent risk management framework and the Risk Oversight and Governance process to raise and report material company risks to the Executive Risk Committee ("ERC") and the Board of Directors. The ERC is comprised primarily of senior-level officers of the Company and is chaired by the Company's Senior Vice President and Chief Financial Officer. The ERC is responsible for ensuring that the Board receives timely information concerning the Company's material risks and risk management processes and the effectiveness of the Enterprise Risk Management program.

Water

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

- ☒ Chief Executive Officer (CEO)

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

- ☒ Sporadic – agenda item as important matters arise

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

- ☒ Overseeing the setting of corporate targets
- ☒ Monitoring the implementation of the business strategy
- ☒ Overseeing and guiding major capital expenditures

(4.1.2.7) Please explain

The CEO reviews water issues and approves proposed changes to our enterprise water strategies four times per year via the SEC reporting process and Investor Relations' reports and presentations. The CEO is provided with reports from facility managers and executives concerning water targets, challenges and strategies, and he updates the Board as needed. The Board oversees the Company's overall business strategy, including its water strategies. In addition, the Board oversees the Company's risk management function, which encompasses (among other things) water-related risks. Each Board committee receives periodic presentations from management about their assigned risk areas. The Executive Risk Committee, comprised executive level leaders and chaired by the Chief Administrative Officer, are responsible for ensuring the Board receives timely information concerning the Company's material risks and management processes, including those related to water resources. The Finance Committee of the Board reviews and discusses with management the Company's allocation and management of capital and reviews the Company's annual operations and maintenance budget. The Human Resource Committee annually reviews the goals and performance of the officers of the Company and APS and approves corporate goals and objectives relevant to the compensation of the Chief Executive Officer. The Nuclear and Operating Committee receives regular reports from management and monitors the overall performance of Palo Verde and non-nuclear business functions of the Company and APS, including fossil energy generation, energy transmission and delivery, customer service and the Company's sustainability initiatives and strategy.

[Fixed row]

(4.2) Does your organization's board have competency on environmental issues?

Climate change

(4.2.1) Board-level competency on this environmental issue

Select from:

- ☒ No, but we plan to within the next two years

(4.2.4) Primary reason for no board-level competency on this environmental issue

Select from:

- ☒ Not an immediate strategic priority

(4.2.5) Explain why your organization does not have a board with competence on this environmental issue

In 2022, we added Sustainability as a board competence skill to gain more understanding of board competence related to environmental matters that can include climate-related issues.

Water

(4.2.1) Board-level competency on this environmental issue

Select from:

☒ No, but we plan to within the next two years

(4.2.4) Primary reason for no board-level competency on this environmental issue

Select from:

☒ Not an immediate strategic priority

(4.2.5) Explain why your organization does not have a board with competence on this environmental issue

In 2022, we added Sustainability as a board competence skill to gain more understanding of board competence related to environmental matters that can include climate-related issues.

[Fixed row]

(4.3) Is there management-level responsibility for environmental issues within your organization?

	Management-level responsibility for this environmental issue
Climate change	Select from: ☒ Yes
Water	Select from: ☒ Yes

	Management-level responsibility for this environmental issue
Biodiversity	<i>Select from:</i> ☒ Yes

[Fixed row]

(4.3.1) Provide the highest senior management-level positions or committees with responsibility for environmental issues (do not include the names of individuals).

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☒ Chief Executive Officer (CEO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☒ Assessing environmental dependencies, impacts, risks, and opportunities

☒ Managing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

☒ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☒ Quarterly

(4.3.1.6) Please explain

The Chief Executive Officer (CEO), who is also the Chairman of the Board and President of Pinnacle West as well as the Chairman of the Board and CEO of Arizona Public Service Company, provides the vision and leadership to execute the Company's strategy and create shareholder value. Additionally, the CEO has overarching responsibility for managing risk, including climate change and greenhouse gas risks that directly or indirectly impact our ability to execute to our mission and achieve our vision. One of the most significant effects of climate change in Arizona is drought: The state is enduring a decades-long drought. Higher temperatures and extreme drought are expected to increase the severity, frequency and extent of wildfires, which harm the natural environment and human health. The CEO and other Senior Officers participate in a Senior Officer forum. The Senior Officer forum, which meets twice a month, is comprised of senior executives who review, evaluate, assess, discuss and determine strategy on energy-related issues, including climate-related issues, risks and opportunities, and establish policies that support our long-term corporate strategy. The CEO is responsible for leading the Senior Officer forum and is responsible for climate-related decisions and the implementation of strategies, policies and initiatives on climate-related issues.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☒ Chief Executive Officer (CEO)

(4.3.1.4) Reporting line

Select from:

☒ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☒ Quarterly

(4.3.1.6) Please explain

The CEO reports directly to the Board of Directors and has the highest level of direct responsibility for water within our organization. The CEO reviews water issues and approves proposed changes to our enterprise water strategies four times per year via the SEC reporting process and Investor Relations' reports and presentations. The CEO is provided with reports from facility managers and executives concerning water targets, challenges and strategies, and he updates the Board as needed.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Other

☒ Other, please specify :VP Transmission & Distribution

(4.3.1.4) Reporting line

Select from:

☒ Other, please specify :Reports to Executive VP, Operations

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☒ As important matters arise

(4.3.1.6) Please explain

The Vice President of Transmission and Distribution Operations has governance over biodiversity issues, which are managed by the Forestry, Fire & Resource Management Department (FFRM). This team uses best practices to manage vegetation growing around our facilities and equipment—including substations, overhead power lines and poles—to ensure safe and reliable delivery of energy. APS's transmission facilities consist of approximately 5,900 miles of transmission lines and 34,800 miles of distribution lines, with almost 11,300 miles of those being overhead distribution lines. Our FFRM team has a dedicated staff of natural resource professionals, including foresters, arborists, biologists and archaeologists. They work to ensure we comply with the National Environmental Policy Act, the Endangered Species Act, the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act and other applicable statutes and regulations to protect biodiversity in our service territory. In addition, a variety of operations-related environmental programs are in place to manage vegetation in and around our facilities and rights-of-way to create habitat and keep areas available to support wildfire safety.

[Add row]

(4.5) Do you provide monetary incentives for the management of environmental issues, including the attainment of targets?

Climate change

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:

☒ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

100

(4.5.3) Please explain

Our compensation programs focus on transparency with an emphasis on incentivizing performance and compensation philosophy incorporates multiple business performance metrics. One example is the Palo Verde Generation Station's (PVGS) capacity factor. PVGS is critical to the Company's ability to achieve its clean energy goals and mitigate the effects of climate change. In 2023, PVGS's capacity factor target was 92%, and the plant reached an actual capacity factor of 91.42%. As a result, Palo Verde generated more than 32 million megawatt-hours of clean, carbon-free electricity. In 2021, a new Clean Megawatts (MW) Installed metric was adopted that ties a portion of executive long-term incentive compensation to progress towards our Clean Energy Commitment interim milestones. The new Clean MW Installed metric establishes targets and measures performance related to the installation of clean, renewable, or other carbon-free resources over a rolling three-year average, commencing in 2022.

Water

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:

☒ No, and we do not plan to introduce them in the next two years

[Fixed row]

(4.5.1) Provide further details on the monetary incentives provided for the management of environmental issues (do not include the names of individuals).

Climate change

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

- ☒ Corporate executive team

(4.5.1.2) Incentives

Select all that apply

- ☒ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

- ☒ Progress towards environmental targets

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

- ☒ Long-Term Incentive Plan, or equivalent, only (e.g. contractual multi-year bonus)

(4.5.1.5) Further details of incentives

Our compensation programs focus on transparency with an emphasis on incentivizing performance. APS's compensation philosophy incorporates multiple business performance metrics. In 2021, a new Clean Megawatts (MW) Installed metric was adopted that ties a portion of executive long-term incentive compensation to progress towards our Clean Energy Commitment interim milestones. (Our interim milestones are to achieve a 65% clean resource mix by 2030, 45% of our generation portfolio coming from renewable energy.) The new Clean MW Installed metric establishes targets and measures performance related to the installation of clean, renewable, or other carbon-free resources over a rolling three-year average, commencing in 2022.

Climate change

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

- ☒ Corporate executive team

(4.5.1.2) Incentives

Select all that apply

- ☒ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

- ☒ Progress towards environmental targets

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

- ☒ Long-Term Incentive Plan, or equivalent, only (e.g. contractual multi-year bonus)

(4.5.1.5) Further details of incentives

Our compensation programs focus on transparency with an emphasis on incentivizing performance. APS's compensation philosophy incorporates multiple business performance metrics. One example is the Palo Verde Generation Station's (PVGS) capacity factor is an example. PVGS has been the nation's largest producer of clean, carbon-free energy for 30 years and is critical to the Company's ability to achieve its clean energy goals and mitigate the effects of climate change. In 2023, PVGS's capacity factor target was 92.00%, and the plant reached an actual capacity factor of 91.42%. As a result, Palo Verde generated more than 32 million megawatt-hours of clean, carbon-free electricity. APS operates PVGS and owns or leases 29.1% of the plant.

Climate change

(4.5.1.1) Position entitled to monetary incentive

Facility/Unit/Site management

- ☒ Business unit manager

(4.5.1.2) Incentives

Select all that apply

☒ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

☒ Progress towards environmental targets

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☒ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

Our Business Unit managers' compensation programs focus on transparency with an emphasis on incentivizing performance. APS's compensation philosophy incorporates multiple business performance metrics, including nuclear capacity factor, to assess performance. One example is the Palo Verde Generation Station's (PVGS) capacity factor is an example. PVGS has been the nation's largest producer of clean, carbon-free energy for 30 years and is critical to the Company's ability to achieve its clean energy goals and mitigate the effects of climate change. In 2023, PVGS's capacity factor target was 92.00%, and the plant reached an actual capacity factor of 91.42%. As a result, Palo Verde generated more than 32 million megawatt-hours of clean, carbon-free electricity. APS operates PVGS and owns or leases 29.1% of the plant.

Climate change

(4.5.1.1) Position entitled to monetary incentive

Facility/Unit/Site management

☒ Other facility/unit/site manager, please specify :All employees

(4.5.1.2) Incentives

Select all that apply

☒ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

☒ Progress towards environmental targets

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☒ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

Eligible employees receive annual cash incentives based on the achievement of specified performance goals, with a focus on transparency and an emphasis on incentivizing performance. APS’s compensation philosophy incorporates multiple business performance metrics, including nuclear capacity factor, to assess performance.
[Add row]

(4.6) Does your organization have an environmental policy that addresses environmental issues?

	Does your organization have any environmental policies?
	Select from: ☒ Yes

[Fixed row]

(4.6.1) Provide details of your environmental policies.

Row 1

(4.6.1.1) Environmental issues covered

Select all that apply

☒ Water

(4.6.1.2) Level of coverage

Select from:

☒ Organization-wide

(4.6.1.3) Value chain stages covered

Select all that apply

☒ Direct operations

(4.6.1.4) Explain the coverage

Water is critical to both generation and to upstream processes in our value-chain that facilitate our direct operations. APS's water policy is grounded in and guided by the APS Water Resources Principles (Principles). The Principles, which are publicly available, demonstrate our commitment to water stewardship and to transparency in our water management practices and strategies. The Principles address water impacts from all operations and detail the Company's water resources management strategies, including the acquisition of water supplies and alternative supplies, water conservation, research and technology and water supply contingencies. The Principles also address water-related innovation and are designed to guide the Company's decisions regarding climate change impacts such as drought and to identify initiatives and opportunities for enhanced water security. The Principles align with our commitment to become 100% clean and carbon-free by 2050, as we increase renewable energy resources that require minimal water. Our water usage will decrease substantially when we exit our remaining coal-fired generation facilities at Cholla and Four Corners Power Plants. The Principles also address water conditions more broadly across Arizona. We routinely engage with legislators, regulators and other stakeholders regarding state water policy issues, and we actively participate in the development of new water laws, regulations and policy.

(4.6.1.5) Environmental policy content

Water-specific commitments

☒ Commitment to reduce water consumption volumes

☒ Commitment to water stewardship and/or collective action

(4.6.1.7) Public availability

Select from:

☒ Publicly available

(4.6.1.8) Attach the policy

Water-Principles-Final-2019.pdf

[Add row]

(4.10) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

	Are you a signatory or member of any environmental collaborative frameworks or initiatives?
	Select from: ☒ No, and we do not plan to within the next two years

[Fixed row]

(4.11) In the reporting year, did your organization engage in activities that could directly or indirectly influence policy, law, or regulation that may (positively or negatively) impact the environment?

	External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the environment	Indicate whether your organization has a public commitment or position statement to conduct your engagement activities in line with global environmental	Indicate whether your organization is registered on a transparency register
	Select all that apply ☒ Yes, we engaged directly with policy makers	Select from:	Select from: ☒ No

	External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the environment	Indicate whether your organization has a public commitment or position statement to conduct your engagement activities in line with global environmental	Indicate whether your organization is registered on a transparency register
	☒ Yes, we engaged indirectly through, and/or provided financial or in-kind support to a trade association or other intermediary organization or individual whose activities could influence policy, law, or regulation	☒ No, and we do not plan to have one in the next two years	

[Fixed row]

(4.11.1) On what policies, laws, or regulations that may (positively or negatively) impact the environment has your organization been engaging directly with policy makers in the reporting year?

Row 1

(4.11.1.1) Specify the policy, law, or regulation on which your organization is engaging with policy makers

US Environmental Protection Agency proposed rule: New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule

(4.11.1.2) Environmental issues the policy, law, or regulation relates to

Select all that apply

☒ Climate change

(4.11.1.3) Focus area of policy, law, or regulation that may impact the environment

Environmental impacts and pressures

☒ Emissions – CO2

☒ Emissions – other GHGs

(4.11.1.4) Geographic coverage of policy, law, or regulation

Select from:

☒ National

(4.11.1.5) Country/area/region the policy, law, or regulation applies to

Select all that apply

☒ United States of America

(4.11.1.6) Your organization's position on the policy, law, or regulation

Select from:

☒ Support with major exceptions

(4.11.1.8) Type of direct engagement with policy makers on this policy, law, or regulation

Select all that apply

☒ Submitting written proposals/inquiries

(4.11.1.11) Indicate if you have evaluated whether your organization's engagement on this policy, law, or regulation is aligned with global environmental treaties or policy goals

Select from:

☒ Yes, we have evaluated, and it is aligned

[Add row]

(4.11.2) Provide details of your indirect engagement on policy, law, or regulation that may (positively or negatively) impact the environment through trade associations or other intermediary organizations or individuals in the reporting year.

Row 1

(4.11.2.1) Type of indirect engagement

Select from:

- ☒ Indirect engagement via a trade association

(4.11.2.4) Trade association

North America

- ☒ Edison Electric Institute (EII)

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

- ☒ Climate change

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

- ☒ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

- ☒ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

EEl's member companies are leading a clean energy transformation. We are united in our commitment to get the energy we provide as clean as we can as fast as we can, without compromising on the reliability or affordability that are essential to the customers and communities we serve. Today, carbon emissions from the U.S. power sector are as low as they were in 1984, while electricity use is up 72% since then. EEl's member companies are committed to continuing to reduce carbon emissions in our sector and to helping other sectors—particularly the transportation and industrial sectors—transition to clean, efficient electric energy. This is just the start. With investments in new technologies and the right policies in place, we can do even more to build a cleaner, stronger economy together. Together, we are delivering America's energy future. The Edison Electric Institute is a trade association that represents all US investor-owned electric companies. EEl provides public

policy leadership, strategic business intelligence, and essential conferences and forums. EEI engages on their behalf with federal and state legislators, regulators, and other policymakers through lobbying, advocacy, and regulatory proceedings, with the goal of providing customers affordable, reliable, and resilient clean energy. EEI also engages with a range of other industry stakeholders on issues related to grid reliability; cyber and physical security; mutual assistance and disaster response; finance and tax matters; and programs, services, and solutions for electricity customers. APS participates on a variety of committees and EEI led initiatives across a variety of topics and issues.

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☒ Yes, we have evaluated, and it is aligned

Row 2

(4.11.2.1) Type of indirect engagement

Select from:

☒ Indirect engagement via a trade association

(4.11.2.4) Trade association

North America

☒ Other trade association in North America, please specify :Nuclear Energy Institute

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☒ Climate change

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

☒ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☒ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

We need deep decarbonization to hit our climate goals. Nuclear power can help get us there. As our largest source of carbon-free energy, nuclear power is critical to reducing greenhouse gas emissions. Wind, solar and geothermal are on the rise, but the smartest policies will ensure these technologies complement, not replace, nuclear's clean energy production. Protecting and growing our use of nuclear technologies are important ways to dramatically reduce greenhouse gases and help us make meaningful progress to address climate change. Now is the time to do all that we can to reduce carbon emissions. The threat that climate change poses is clear: we must reduce emissions as quickly as possible across the economy to avoid it. Policymakers are working to put America in position to meet this moment and, as the largest provider of carbon-free energy around-the-clock and with new innovations on the horizon, nuclear energy is the ideal partner to wind and solar in this endeavor. In a clean energy system, wind and solar will play important roles as renewable resources, but when the sun isn't shining or the wind isn't blowing, customers need support in the form of a reliable, carbon-free electricity source like nuclear energy. Nuclear energy provides a significant portion of our nation's carbon-free energy. It's always available around-the-clock, a reliable part of our critical infrastructure. Palo Verde Generating Station has been one of the nation's largest power producers of any kind for more than 30 years – all of it clean and carbon-free. As the heart of the APS generation fleet, it provides the foundation for the reliable service our customers count on. The plant is a critical asset to the Southwest, generating more than 32 million MWh annually – enough power for roughly 3.4 million households or 8.5 million people. The Nuclear Energy Institute reports that we need deep decarbonization to hit our climate goals. As our largest source of clean energy, nuclear power is critical to reduce carbon emissions. Wind, solar and geothermal are on the rise, but the smartest policies will ensure these technologies complement, not replace, nuclear's clean energy production. Protecting and growing our use of nuclear technologies are important ways to make a dent in greenhouse gases and help us make meaningful progress to address climate change. No other source, renewable or otherwise, contributes as much to meeting U.S. energy demand without emissions as nuclear.

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☒ Yes, we have evaluated, and it is aligned

Row 3

(4.11.2.1) Type of indirect engagement

Select from:

- ☒ Indirect engagement via other intermediary organization or individual

(4.11.2.2) Type of organization or individual

Select from:

- ☒ Research organization

(4.11.2.3) State the organization or position of individual

APS provided funding to the Electric Power Research Institute (EPRI). Founded in 1972, EPRI is the world's preeminent independent, non-profit energy research and development organization. EPRI's trusted experts collaborate with more than 450 companies in 45 countries, driving innovation to ensure the public has clean, safe, reliable, affordable, and equitable access to electricity across the globe.

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

- ☒ Climate change

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

- ☒ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

- ☒ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

The Electric Power Research Institute (EPRI) and Gas Technology Institute (GTI) have created the Low-Carbon Resources Initiative (LCRI) to accelerate the deployment of low- and zero-carbon energy technologies required for deep decarbonization. LCRI is specifically targeting advances in the production, distribution, and application of low carbon, alternative energy carriers and the cross-cutting technologies that enable their integration at scale. These energy carriers—which include hydrogen, ammonia, synthetic fuels, and biofuels—are needed to enable affordable pathways to achieve deep carbon reductions across the energy economy. The LCRI is focused on technologies that can be developed and deployed beyond 2030 to support the achievement of a net zero emission economy by 2050. We are participating in the LCRI in order to facilitate research and development in low carbon technologies that can help transform the industry and enable us to achieve our clean energy commitment. These technologies may be adopted as potential clean resources that may be adopted into or inform the development of regional, national, or international climate policies, targets, or regulation that apply to public utilities or energy industries.

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☒ Yes, we have evaluated, and it is aligned

[Add row]

(4.12) Have you published information about your organization's response to environmental issues for this reporting year in places other than your CDP response?

Select from:

☒ No, but we plan to within the next two years

C5. Business strategy

(5.1) Does your organization use scenario analysis to identify environmental outcomes?

Climate change

(5.1.1) Use of scenario analysis

Select from:

☒ No, but we plan to within the next two years

(5.1.3) Primary reason why your organization has not used scenario analysis

Select from:

☒ Other, please specify :Our strategy has been influenced by climate-related risks and opportunities, and as of late 2022, we have partnered with the Electric Power Research Institute to conduct a Climate Change Scenario Analysis.

(5.1.4) Explain why your organization has not used scenario analysis

We use a variety of methods to inform our strategies to achieve our clean energy commitment including both qualitative and quantitative analysis, such as an analysis of risks and opportunities, KPIs, compensation incentives, benchmarking, investment in innovation. Additionally, we have started work on a Climate Change Scenario Analysis that is relevant for APS.

Water

(5.1.1) Use of scenario analysis

Select from:

☒ No, but we plan to within the next two years

(5.1.3) Primary reason why your organization has not used scenario analysis

Select from:

☒ Not an immediate strategic priority

(5.1.4) Explain why your organization has not used scenario analysis

Not determined to be an immediate priority.

[Fixed row]

(5.2) Does your organization's strategy include a climate transition plan?

(5.2.1) Transition plan

Select from:

☒ No, but we are developing a climate transition plan within the next two years

(5.2.15) Primary reason for not having a climate transition plan that aligns with a 1.5°C world

Select from:

☒ Other, please specify :.

(5.2.16) Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world

Our clean energy commitment is to provide 100% carbon free electricity by 2050 with a nearer-term 2030 target of achieving a resource mix that is 65% clean energy, with 45% of our generation portfolio coming from renewable energy, and a planned exit from all coal fired generation by 2031. Our 2050 target is consistent with the Intergovernmental Panel on Climate Change's recommended timeframe for limiting global warming this century to 1.5C above pre-industrial levels (SR1.5). We will continue to monitor climate science developments to stay aligned with new research and recommendations.

[Fixed row]

(5.4) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition
	Select from: ☒ No, but we plan to in the next two years

[Fixed row]

(5.5) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

(5.5.1) Investment in low-carbon R&D

Select from:

☒ Yes

(5.5.2) Comment

A low-carbon services offering provided by APS is the EV Charging Demand Management pilot program. The program is intended to proactively address the growing electric demand from EV charging as EVs become more widely adopted. The objective of the program is to increase APS's understanding of customer EV charging habits and educate customers about beneficial charging behavior. Electric system benefits will be realized by managing EV charging based on seasonal and evolving distribution and system level needs, including demand response (DR) events as needed. This will result in significant customer benefits including fuel savings, lower transportation costs, reduced tailpipe emissions, and more efficient electric system operations that help manage future energy costs. Known as APS SmartCharge, the program encourages EV owners to share data on their driving and charging behavior by either installing a data sharing module in the diagnostic port of their car or granting permission to share their car account data using an API with the implementer. As part of the pilot program, APS also offered a 250 rebate to customers that purchased a new, qualifying connected smart charger (EV Smart Charger Rebate). Rebates for these smart chargers were claimed online through the APS Marketplace. The rebate was intended to facilitate customer adoption of residential EV charging systems with load-shifting and advanced managed charging capabilities. Following Arizona Corporation Commission Decision No. 79211 (December 12, 2023), APS no longer offers the EV Smart Charger Rebate.

[Fixed row]

(5.5.7) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Row 1

(5.5.7.1) Technology area

Select from:

☒ Demand response

(5.5.7.2) Stage of development in the reporting year

Select from:

☒ Pilot demonstration

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

A low-carbon services offering provided by APS is the EV Charging Demand Management pilot program. The program is intended to proactively address the growing electric demand from EV charging as EVs become more widely adopted. The objective of the program is to increase APS's understanding of customer EV charging habits and educate customers about beneficial charging behavior. Electric system benefits will be realized by managing EV charging based on seasonal and evolving distribution and system level needs, including demand response (DR) events as needed. This will result in significant customer benefits including fuel savings, lower transportation costs, reduced tailpipe emissions, and more efficient electric system operations that help manage future energy costs. Known as APS SmartCharge, the program encourages EV owners to share data on their driving and charging behavior by either installing a data sharing module in the diagnostic port of their car or granting permission to share their car account data using an API with the implementer. As part of the pilot program, APS also offered a 250 rebate to customers that purchased a new, qualifying connected smart charger (EV Smart Charger Rebate). Rebates for these smart chargers were claimed online through the APS Marketplace. The rebate was intended to facilitate customer adoption of residential EV charging systems with load-shifting and advanced managed charging capabilities. Following Arizona Corporation Commission Decision No. 79211 (December 12, 2023), APS no longer offers the EV Smart Charger Rebate.

[Add row]

(5.7) Break down, by source, your organization's CAPEX in the reporting year and CAPEX planned over the next 5 years.

Coal – hard

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

50884000

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

7.88

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

8.52

(5.7.5) Explain your CAPEX calculations, including any assumptions

CAPEX is not provided publicly beyond a 3-year estimate. Therefore, we are providing a three (2024-2026) year total instead of a 5-year total. All figures with the exception of 2023 data are estimations. CapEx numbers are based on estimates from the 10K 2023

Lignite

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

N/A - Do not utilize this power generation source

Oil

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

6004000

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0.93

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0.08

(5.7.5) Explain your CAPEX calculations, including any assumptions

CAPEX is not provided publicly beyond a 3-year estimate. Therefore, we are providing a three (2024-2026) year total instead of a 5-year total. All figures with the exception of 2023 data are estimations. CapEx numbers are based on estimates from the 10K 2023

Gas

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

221522000

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

34.31

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

33.71

(5.7.5) Explain your CAPEX calculations, including any assumptions

CAPEX is not provided publicly beyond a 3-year estimate. Therefore, we are providing a three (2024-2026) year total instead of a 5-year total. All figures with the exception of 2023 data are estimations. CapEx numbers are based on estimates from the 10K 2023

Sustainable biomass

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

N/A - Do not utilize this power generation source

Other biomass

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

N/A - Do not utilize this power generation source

Waste (non-biomass)

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

N/A - Do not utilize this power generation source

Nuclear

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

122062000

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

18.9

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

18.61

(5.7.5) Explain your CAPEX calculations, including any assumptions

CAPEX is not provided publicly beyond a 3-year estimate. Therefore, we are providing a three (2024-2026) year total instead of a 5-year total. All figures with the exception of 2023 data are estimations. CapEx numbers are based on estimates from the 10K 2023

Geothermal

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

N/A - Do not utilize this power generation source

Hydropower

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

N/A - Do not utilize this power generation source

Wind

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

N/A - Do not utilize this power generation source

Solar

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

160091000

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

24.79

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

34.93

(5.7.5) Explain your CAPEX calculations, including any assumptions

CAPEX is not provided publicly beyond a 3-year estimate. Therefore, we are providing a three (2024-2026) year total instead of a 5-year total. All figures with the exception of 2023 data are estimations. CapEx numbers are based on estimates from the 10K 2023. For this section we are reporting on Renewables and Energy Storage Systems, as APS currently tracks these in the same CapEx category.

Marine

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

N/A - Do not utilize this power generation source

Fossil-fuel plants fitted with CCS

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

N/A - Do not utilize this power generation source

Other renewable (e.g. renewable hydrogen)

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

N/A - Do not utilize this power generation source

Other non-renewable (e.g. non-renewable hydrogen)

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

*N/A - Do not utilize this power generation source
[Fixed row]*

(5.7.1) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).

Row 1

(5.7.1.1) Products and services

Select from:

☒ Other, please specify :Renewables and energy storage

(5.7.1.2) Description of product/service

Solar communities programs, energy storage, renewable projects and other clean energy projects

(5.7.1.3) CAPEX planned for product/service

759904000

(5.7.1.4) Percentage of total CAPEX planned for products and services

35

(5.7.1.5) End year of CAPEX plan

2026

Row 2

(5.7.1.1) Products and services

Select from:

☒ Other, please specify :Environmental

(5.7.1.2) Description of product/service

Generation environmental projects

(5.7.1.3) CAPEX planned for product/service

119160000

(5.7.1.4) Percentage of total CAPEX planned for products and services

5

(5.7.1.5) End year of CAPEX plan

2026

[Add row]

(5.9) 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?

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

0

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

0

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

0

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

0

(5.9.5) Please explain

Capital expenditures for wells are expected to be 2.5-4.0 million/year in future years. Operating expenses for well maintenance are expected to be 350,000/year. APS developed a well and pumping equipment reliability program in 2017, reducing the number of unplanned equipment failures from five per year in 2015 to zero failures in 2021. As a result, both capital and operating expenditures have levelled, rather than fluctuating from year to year. In 2019, APS implemented a new risk assessment process to identify wells that were no longer used and to prioritize them for abandonment. Eleven of the highest priority wells were immediately abandoned and in 2020, 28 additional wells were abandoned or modified to eliminate risk. Since 2020, 84 wells have been abandoned or modified to eliminate risk.
[Fixed row]

(5.10) Does your organization use an internal price on environmental externalities?

	Use of internal pricing of environmental externalities	Environmental externality priced
	Select from: ☒ Yes	Select all that apply ☒ Carbon ☒ Water

[Fixed row]

(5.10.1) Provide details of your organization's internal price on carbon.

Row 1

(5.10.1.1) Type of pricing scheme

Select from:

☒ Internal fee

(5.10.1.2) Objectives for implementing internal price

Select all that apply

☒ Navigate regulations

☒ Other, please specify :Integrated Resource Planning

(5.10.1.3) Factors considered when determining the price

Select all that apply

☒ Existing or pending legislation

(5.10.1.4) Calculation methodology and assumptions made in determining the price

APS has included the potential for carbon pricing in its 2023 Integrated Resource Plan (IRP). The CO2 cost included in the IRP analysis was based on the California market cap-and-trade 2020 CO2 cost of 25, escalated at 2.5% beginning in 2028. Prior to 2028, APS's analysis assumed the CO2 cost to be 0.

(5.10.1.5) Scopes covered

Select all that apply

☒ Scope 1

(5.10.1.10) Minimum actual price used (currency per metric ton CO2e)

25

(5.10.1.11) Maximum actual price used (currency per metric ton CO2e)

(5.10.1.15) Pricing approach is monitored and evaluated to achieve objectives

Select from:

☒ Yes

(5.10.1.16) Details of how the pricing approach is monitored and evaluated to achieve your objectives

We use internal price on carbon to measure, model and manage financial and regulatory risks from emerging GHG regulations. For instance, APS has included the potential for carbon pricing in its 2023 Integrated Resource Plan (IRP). The CO2 cost included in the IRP analysis was based on the California market cap-and-trade 2020 CO2 cost of 25, escalated at 2.5% beginning in 2028. Prior to 2028, APS's analysis assumed the CO2 cost to be 0. These costs could result in higher revenue requirements recovered through a rate review or adjustor mechanisms. A carbon cost will continue to be integrated into future scenarios as we work with stakeholders on future resource plans.

[Add row]

(5.10.2) Provide details of your organization's internal price on water.

Row 1

(5.10.2.1) Type of pricing scheme

Select from:

☒ Other, please specify :Internal consideration

(5.10.2.2) Objectives for implementing internal price

Select all that apply

☒ Drive water efficiency

☒ Identify and seize low-water impact opportunities

(5.10.2.3) Factors beyond current market price are considered in the price

Select from:

☒ No

(5.10.2.16) Details of how the pricing approach is monitored and evaluated to achieve your objectives

As water supplies continue to contract and demand continues to rise, the cost of new water supplies and/or of extending existing water supply agreements are expected to escalate faster than the rate of inflation. The primary source of water for Central Arizona municipalities is Colorado River water delivered by the Central Arizona Project Canal, and the cost of municipal and industrial water is predicted to increase at a rate of 4-8%/year. Additionally, operation of the Water Reclamation Facility at Palo Verde, which treats effluent for use in the plant's operations, adds more than 1.60 per MWh, respectively, to the plant's operation and maintenance costs. These costs are expected to increase to over 2.50 per MWh by 2050, due to increasing costs. To offset these costs, APS is planning to increase reliance on technologies that reduce water use, such as wind and solar, and will expand energy efficiency programs that reduce the need for new, potentially water intensive generation.

[Add row]

(5.11) Do you engage with your value chain on environmental issues?

Suppliers

(5.11.1) Engaging with this stakeholder on environmental issues

Select from:

☒ Yes

(5.11.2) Environmental issues covered

Select all that apply

☒ Climate change

☒ Water

Customers

(5.11.1) Engaging with this stakeholder on environmental issues

Select from:

☒ Yes

(5.11.2) Environmental issues covered

Select all that apply

☒ Climate change

Investors and shareholders

(5.11.1) Engaging with this stakeholder on environmental issues

Select from:

☒ No, and we do not plan to within the next two years

(5.11.3) Primary reason for not engaging with this stakeholder on environmental issues

Select from:

☒ Not an immediate strategic priority

(5.11.4) Explain why you do not engage with this stakeholder on environmental issues

Determined not to be a priority at this time

Other value chain stakeholders

(5.11.1) Engaging with this stakeholder on environmental issues

Select from:

☒ No, and we do not plan to within the next two years

(5.11.3) Primary reason for not engaging with this stakeholder on environmental issues

Select from:

☒ Not an immediate strategic priority

(5.11.4) Explain why you do not engage with this stakeholder on environmental issues

Determined not to be a priority at this time

[Fixed row]

(5.11.1) Does your organization assess and classify suppliers according to their dependencies and/or impacts on the environment?

	Assessment of supplier dependencies and/or impacts on the environment
Climate change	Select from: ☒ No, we do not currently assess the dependencies and/or impacts of our suppliers, but we plan to do so within the next two years
Water	Select from: ☒ No, we do not currently assess the dependencies and/or impacts of our suppliers, but we plan to do so within the next two years

[Fixed row]

(5.11.2) Does your organization prioritize which suppliers to engage with on environmental issues?

Climate change

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:

☒ Yes, we prioritize which suppliers to engage with on this environmental issue

(5.11.2.2) Criteria informing which suppliers are prioritized for engagement on this environmental issue

Select all that apply

☒ Business risk mitigation

☒ Procurement spend

(5.11.2.4) Please explain

Annually, APS engages our suppliers representing approximately 39% of the Company's total spend through a sustainability survey. Our suppliers primarily provide materials and services to our power plants, and the transmission and distribution of our energy. They are a part of key suppliers who are identified through a rigorous segmentation process that includes assessing spend, risk analysis, category strategy alignment and criticality to APS operations. We engage our top tier suppliers, was these suppliers to provide products and services that are directly tied to our upstream operations (e.g., generation and distribution of grid electricity) and because we spend a significant amount of dollars in procuring materials and services from these suppliers.

Water

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:

☒ Yes, we prioritize which suppliers to engage with on this environmental issue

(5.11.2.2) Criteria informing which suppliers are prioritized for engagement on this environmental issue

Select all that apply

☒ Business risk mitigation

☒ Procurement spend

(5.11.2.4) Please explain

Annually, APS engages our suppliers representing approximately 39% of the Company's total spend through a sustainability survey. Our suppliers primarily provide materials and services to our power plants, and the transmission and distribution of our energy. They are a part of key suppliers who are identified through a rigorous segmentation process that includes assessing spend, risk analysis, category strategy alignment and criticality to APS operations. We engage our top tier suppliers, was these suppliers to provide products and services that are directly tied to our upstream operations (e.g., generation and distribution of grid electricity) and because we spend a significant amount of dollars in procuring materials and services from these suppliers.

[Fixed row]

(5.11.5) Do your suppliers have to meet environmental requirements as part of your organization's purchasing process?

	Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process	Policy in place for addressing supplier non-compliance
Climate change	<i>Select from:</i> ☒ No, but we plan to introduce environmental requirements related to this environmental issue within the next two years	<i>Select from:</i> ☒ No, we do not have a policy in place for addressing non-compliance
Water	<i>Select from:</i> ☒ No, but we plan to introduce environmental requirements related to this environmental issue within the next two years	<i>Select from:</i> ☒ No, we do not have a policy in place for addressing non-compliance

[Fixed row]

(5.11.7) Provide further details of your organization's supplier engagement on environmental issues.

Climate change

(5.11.7.2) Action driven by supplier engagement

Select from:

- ☒ Other, please specify :Information collection

(5.11.7.3) Type and details of engagement

Information collection

- ☒ Collect climate transition plan information at least annually from suppliers
- ☒ Collect environmental risk and opportunity information at least annually from suppliers
- ☒ Collect GHG emissions data at least annually from suppliers
- ☒ Collect targets information at least annually from suppliers
- ☒ Collect water quantity information at least annually from suppliers (e.g., withdrawal and discharge volumes)

(5.11.7.4) Upstream value chain coverage

Select all that apply

☒ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☒ 26-50%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Annually, APS engages our suppliers representing approximately 39% of the Company's total spend through a sustainability survey. The survey helps us identify our suppliers' environmental priorities as well as determine if APS and its suppliers are aligned in our sustainability priorities. The survey also includes questions on how they are managing environmental impacts in their operations, including greenhouse gas emissions, energy and water usage, waste and materials management. Additionally, suppliers are incentivized to implement sustainable practices within their businesses as our bid evaluations give additional credit to have a 2.5% weighting for the suppliers that 1) have a formal environmental management system; EMS; 2) engage their value chain in water risk and climate change strategies; 3) set sustainability goals or targets; and 4) consider a lifecycle perspective in products /services. For example, a project critical to the expansion of APS operations has incorporated supplier environmental sustainability maturity questions to develop a better understanding of opportunities to measure environmental impacts. APS defines success in two ways: a year over year improvement in performance across the key performance indicators and increased engagement with suppliers. Successful supplier discussions have led to a number of improvement opportunities incorporating sustainable best practices into some of our construction projects.

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☒ Unknown

Water

(5.11.7.2) Action driven by supplier engagement

Select from:

☒ Other, please specify :Information collection

(5.11.7.3) Type and details of engagement

Information collection

- ☒ Collect climate transition plan information at least annually from suppliers
- ☒ Collect environmental risk and opportunity information at least annually from suppliers
- ☒ Collect GHG emissions data at least annually from suppliers
- ☒ Collect targets information at least annually from suppliers
- ☒ Collect water quantity information at least annually from suppliers (e.g., withdrawal and discharge volumes)

(5.11.7.4) Upstream value chain coverage

Select all that apply

- ☒ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

- ☒ 26-50%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Annually, APS engages our suppliers representing approximately 39% of the Company's total spend through a sustainability survey. The survey helps us identify our suppliers' environmental priorities as well as determine if APS and its suppliers are aligned in our sustainability priorities. The survey also includes questions on how they are managing environmental impacts in their operations, including greenhouse gas emissions, energy and water usage, waste and materials management. Additionally, suppliers are incentivized to implement sustainable practices within their businesses as our bid evaluations give additional credit to have a 2.5% weighting for the suppliers that 1) have a formal environmental management system; EMS; 2) engage their value chain in water risk and climate change strategies; 3) set sustainability goals or targets; and 4) consider a lifecycle perspective in products /services. For example, a project critical to the expansion of APS operations has incorporated supplier environmental sustainability maturity questions to develop a better understanding of opportunities to measure environmental impacts. APS defines success in two ways: a year over year improvement in performance across the key performance indicators and increased engagement with suppliers. Successful supplier discussions have led to a number of improvement opportunities incorporating sustainable best practices into some of our construction projects.

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

- ☒ Unknown

[Add row]

(5.11.9) Provide details of any environmental engagement activity with other stakeholders in the value chain.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

- ☒ Customers

(5.11.9.2) Type and details of engagement

Education/Information sharing

- ☒ Share information about your products and relevant certification schemes
- ☒ Share information on environmental initiatives, progress and achievements

(5.11.9.3) % of stakeholder type engaged

Select from:

- ☒ 100%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

- ☒ None

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

APS engages with 100% of our customers through messaging on our website, monthly newsletters (printed and email), emails, social media, trade allies, sponsorships and advertising in order to give all our customers the opportunity to achieve energy savings and greenhouse gas (GHG) emission reductions as all customers are eligible to participate in our programs. Technologies such as rooftop solar, smart thermostats and energy efficiency measures have given customers more power to control their energy usage and potentially reduce their costs and GHG emissions. As more emerging technologies, such as energy storage devices, become commercially viable, they will continue to change how customers interact with us. By being proactive and working with our customers to identify and respond to their changing needs, we remain well positioned to deliver value.

(5.11.9.6) Effect of engagement and measures of success

There are various ways to measure success of messaging, but the most successful measurement for knowing we have reached our customers is when they participate in our programs. This means our customers have not only become aware of the program through our messaging, but also they have acted to potentially reduce their energy use and GHG emissions. In 2023, the energy efficiency program focused on educating customers on energy management best practices and helping them make informed buying decisions. This was done through traditional marketing channels and free, onsite energy assessments for customers interested in learning how their facility uses energy. Our energy efficiency program effectiveness is measured through a third-party and is part of our Measurement Evaluation and Verification (MER) process.

[Add row]

C6. Environmental Performance - Consolidation Approach

(6.1) Provide details on your chosen consolidation approach for the calculation of environmental performance data.

	Consolidation approach used
Climate change	<i>Select from:</i> ☒ Financial control
Water	<i>Select from:</i> ☒ Operational control
Plastics	<i>Select from:</i> ☒ Financial control
Biodiversity	<i>Select from:</i> ☒ Financial control

[Fixed row]

C7. Environmental performance - Climate Change

(7.1) Is this your first year of reporting emissions data to CDP?

Select from:

☒ No

(7.1.1) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

	Has there been a structural change?
	Select all that apply ☒ No

[Fixed row]

(7.1.2) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?
	Select all that apply ☒ No

[Fixed row]

(7.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Select all that apply

- ☒ The Climate Registry: Electric Power Sector (EPS) Protocol
- ☒ The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- ☒ US EPA Mandatory Greenhouse Gas Reporting Rule

(7.3) Describe your organization's approach to reporting Scope 2 emissions.

	Scope 2, location-based	Scope 2, market-based	Comment
	Select from: ☒ We are reporting a Scope 2, location-based figure	Select from: ☒ We are reporting a Scope 2, market-based figure	We calculate both Location-Based and Market-Based emissions

[Fixed row]

(7.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Select from:

- ☒ Yes

(7.4.1) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Row 1

(7.4.1.1) Source of excluded emissions

Emissions not evaluated

(7.4.1.2) Scope(s) or Scope 3 category(ies)

Select all that apply

- ☒ Scope 3: Purchased goods and services
- ☒ Scope 3: Capital goods
- ☒ Scope 3: Upstream transportation and distribution
- ☒ Scope 3: Waste generated in operations
- ☒ Scope 3: Employee commuting

(7.4.1.6) Relevance of Scope 3 emissions from this source

Select from:

- ☒ Emissions are not evaluated

(7.4.1.10) Explain why this source is excluded

Emissions were not evaluated

[Add row]

(7.5) Provide your base year and base year emissions.

Scope 1

(7.5.1) Base year end

12/31/2005

(7.5.2) Base year emissions (metric tons CO2e)

16661531.0

(7.5.3) Methodological details

2005 is used as the Scope 1 baseline year to align our carbon emission reductions with the targets set at COP 21.

Scope 2 (location-based)

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

116939.0

(7.5.3) Methodological details

2020 is used as the baseline year for Scope 2 carbon emissions because this is the first year we updated our methodology.

Scope 2 (market-based)

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

116939.0

(7.5.3) Methodological details

2020 is used as the baseline year for Scope 2 carbon emissions because this is the first year we updated our methodology.

Scope 3 category 1: Purchased goods and services

(7.5.1) Base year end

12/31/2019

(7.5.2) Base year emissions (metric tons CO2e)

339

(7.5.3) Methodological details

Includes only paper goods

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

(7.5.1) Base year end

12/31/2016

(7.5.2) Base year emissions (metric tons CO2e)

2647368.0

(7.5.3) Methodological details

Includes emissions associated with purchased power

Scope 3 category 4: Upstream transportation and distribution

(7.5.1) Base year end

12/30/2016

(7.5.2) Base year emissions (metric tons CO2e)

6043.0

(7.5.3) Methodological details

Partial emissions calculated and included

Scope 3 category 5: Waste generated in operations

(7.5.1) Base year end

12/31/2021

(7.5.2) Base year emissions (metric tons CO2e)

1685.0

(7.5.3) Methodological details

Partial emissions calculated and included

Scope 3 category 6: Business travel

(7.5.1) Base year end

12/30/2016

(7.5.2) Base year emissions (metric tons CO2e)

4153.0

(7.5.3) Methodological details

Partial emissions calculated and included

Scope 3 category 7: Employee commuting

(7.5.1) Base year end

12/30/2016

(7.5.2) Base year emissions (metric tons CO2e)

3586.0

(7.5.3) Methodological details

Partial emissions calculated and included
[Fixed row]

(7.6) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

	Gross global Scope 1 emissions (metric tons CO2e)
Reporting year	10628383.35

[Fixed row]

(7.7) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

	Gross global Scope 2, location-based emissions (metric tons CO2e)	Gross global Scope 2, market-based emissions (metric tons CO2e) (if applicable)	Methodological details
Reporting year	164171	165717.3	<i>We calculate both Location-Based and Market-Based emissions</i>

[Fixed row]

(7.8) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

(7.8.1) Evaluation status

Select from:

☒ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

277

(7.8.3) Emissions calculation methodology

Select all that apply

☒ Spend-based method

(7.8.5) Please explain

Includes only paper goods

Capital goods

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

We do not separate capital goods from overall purchased goods

Fuel-and-energy-related activities (not included in Scope 1 or 2)

(7.8.1) Evaluation status

Select from:

☒ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

2525875

(7.8.3) Emissions calculation methodology

Select all that apply

☒ Site-specific method

(7.8.5) Please explain

CO2e emissions are associated with purchase power agreements from conventional sources such as gas units. marketing and trading purchases (resales) and renewable purchased power.

Upstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☒ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

6482

(7.8.3) Emissions calculation methodology

Select all that apply

☒ Distance-based method

(7.8.5) Please explain

APS receives total miles from our logistics firm that handles the majority of our shipping needs. The CO2e emissions are calculated by APS using the EPA Emission Factors for Greenhouse Inventories and the 5th Assessment of Global Warming Potentials. Specifically, the product transport emission factors for medium and heavy-duty trucks.

Waste generated in operations

(7.8.1) Evaluation status

Select from:

☒ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

1456

(7.8.3) Emissions calculation methodology

Select all that apply

☒ Waste-type-specific method

(7.8.5) Please explain

Waste data includes the scrap metal, small pole and pad mount transformers, single stream (co-mingled) recycling, and other recycling as captured through Investment Recovery only. Investment Recovery receives data from vendors who recycle our waste.

Business travel

(7.8.1) Evaluation status

Select from:

☒ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

1341

(7.8.3) Emissions calculation methodology

Select all that apply

- ☒ Supplier-specific method
- ☒ Spend-based method
- ☒ Distance-based method

(7.8.5) Please explain

CO2e emissions from air travel, rental car travel, and employee mileage reimbursement for 2022

Employee commuting

(7.8.1) Evaluation status

Select from:

- ☒ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

306

(7.8.3) Emissions calculation methodology

Select all that apply

- ☒ Distance-based method

(7.8.5) Please explain

We encourage employees to take part in the Trip Reduction Program. This program focuses on reducing the number of single-occupancy vehicles commuting to our work sites. Maricopa County is a customer of APS, but the survey is not performed as part of our value chain.

Upstream leased assets

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

APS does not have any upstream leased assets.

Downstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

APS generates and distributes electricity. Transmission losses are accounted in our Scope 1 emissions at the point of generation and purchased power line losses are accounted for in Scope 2 emissions.

Processing of sold products

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

APS generates and distributes electricity. Electricity is an end product and is not processed. Therefore, we do not have Scope 3 emissions related to processing sold electricity.

Use of sold products

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

Emissions from the end use of electricity, our product is calculated into our Scope 1 emissions at the point of generation. Emissions of sold electricity are therefore not included in our Scope 3 emissions.

End of life treatment of sold products

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

The use of electricity is considered as the end-of-life treatment of our product. This is calculated in our Scope 1 emissions and therefore not included in our Scope 3 emissions.

Downstream leased assets

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

APS does not have downstream leased assets.

Franchises

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

APS does not have any franchises.

Investments

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

APS does not have a current method to evaluate emissions by any of our investments.

Other (upstream)

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

APS does not have any additional upstream sources.

Other (downstream)

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

APS does not have any additional downstream sources.

[Fixed row]

(7.9) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Select from: ☒ Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Select from: ☒ Third-party verification or assurance process in place
Scope 3	Select from: ☒ Third-party verification or assurance process in place

[Fixed row]

(7.9.1) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Row 1

(7.9.1.1) Verification or assurance cycle in place

Select from:

☒ Annual process

(7.9.1.2) Status in the current reporting year

Select from:

☒ Complete

(7.9.1.3) Type of verification or assurance

Select from:

☒ Reasonable assurance

(7.9.1.4) Attach the statement

APS CY2023_Verification Opinion_v2.pdf

(7.9.1.5) Page/section reference

Page #3

(7.9.1.6) Relevant standard

Select from:

☒ ISO14064-3

(7.9.1.7) Proportion of reported emissions verified (%)

100

[Add row]

(7.9.2) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Row 1

(7.9.2.1) Scope 2 approach

Select from:

☒ Scope 2 location-based

(7.9.2.2) Verification or assurance cycle in place

Select from:

☒ Annual process

(7.9.2.3) Status in the current reporting year

Select from:

☒ Complete

(7.9.2.4) Type of verification or assurance

Select from:

☒ Reasonable assurance

(7.9.2.5) Attach the statement

APS CY2023_Verification Opinion_v2.pdf

(7.9.2.6) Page/ section reference

Page #3

(7.9.2.7) Relevant standard

Select from:

☒ ISO14064-3

(7.9.2.8) Proportion of reported emissions verified (%)

100

Row 2

(7.9.2.1) Scope 2 approach

Select from:

☒ Scope 2 market-based

(7.9.2.2) Verification or assurance cycle in place

Select from:

☒ Annual process

(7.9.2.3) Status in the current reporting year

Select from:

☒ Complete

(7.9.2.4) Type of verification or assurance

Select from:

☒ Reasonable assurance

(7.9.2.5) Attach the statement

APS CY2023_Verification Opinion_v2.pdf

(7.9.2.6) Page/ section reference

Page #3

(7.9.2.7) Relevant standard

Select from:

☒ ISO14064-3

(7.9.2.8) Proportion of reported emissions verified (%)

(7.9.3) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Row 1

(7.9.3.1) Scope 3 category

Select all that apply

☒ Scope 3: Business travel

(7.9.3.2) Verification or assurance cycle in place

Select from:

☒ Annual process

(7.9.3.3) Status in the current reporting year

Select from:

☒ Complete

(7.9.3.4) Type of verification or assurance

Select from:

☒ Reasonable assurance

(7.9.3.5) Attach the statement

APS CY2023_Verification Opinion_v2.pdf

(7.9.3.6) Page/section reference

(7.9.3.7) Relevant standard

Select from:

☒ ISO14064-3

(7.9.3.8) Proportion of reported emissions verified (%)

100

[Add row]

(7.10) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Select from:

☒ Decreased

(7.10.1) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

Change in renewable energy consumption

(7.10.1.2) Direction of change in emissions

Select from:

☒ Increased

(7.10.1.4) Please explain calculation

Approximately 550,000 MWhr produced in calendar year 2022, and approximately 730,000 MWhr produced in calendar year 2023.

Other emissions reduction activities

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.4) Please explain calculation

Not applicable in 2023

Divestment

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.4) Please explain calculation

Not applicable in 2023

Acquisitions

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.4) Please explain calculation

Not applicable in 2023

Mergers

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.4) Please explain calculation

Not applicable in 2023

Change in output

(7.10.1.2) Direction of change in emissions

Select from:

☒ Decreased

(7.10.1.4) Please explain calculation

Coal facility output decreased significantly.

Change in methodology

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.4) Please explain calculation

Not applicable in 2023

Change in boundary

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.4) Please explain calculation

Not applicable in 2023

Change in physical operating conditions

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.4) Please explain calculation

Projections for the southwest United States from climate change models include an increase in the number of extreme hot days in the summer, less precipitation in the form of snow and the earlier runoff of snowmelt.

Unidentified

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.4) Please explain calculation

Not applicable in 2023

Other

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.4) Please explain calculation

Not applicable in 2023

[Fixed row]

(7.10.2) Are your emissions performance calculations in 7.10 and 7.10.1 based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Select from:

☒ Market-based

(7.12) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Select from:

☒ No

(7.15) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Select from:

☒ Yes

(7.15.1) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used global warming potential (GWP).

Row 1

(7.15.1.1) Greenhouse gas

Select from:

☒ CO2

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

10562416.47

(7.15.1.3) GWP Reference

Select from:

☒ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 2

(7.15.1.1) Greenhouse gas

Select from:

☒ SF6

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

10154.96

(7.15.1.3) GWP Reference

Select from:

☒ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 3

(7.15.1.1) Greenhouse gas

Select from:

☒ CH4

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

23827.36

(7.15.1.3) GWP Reference

Select from:

☒ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 4

(7.15.1.1) Greenhouse gas

Select from:

☒ N2O

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

31984.56

(7.15.1.3) GWP Reference

Select from:

☒ IPCC Fifth Assessment Report (AR5 – 100 year)

[Add row]

(7.15.3) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.

Fugitives

(7.15.3.1) Gross Scope 1 CO2 emissions (metric tons CO2)

0

(7.15.3.2) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.3.3) Gross Scope 1 SF6 emissions (metric tons SF6)

10154.96

(7.15.3.4) Total gross Scope 1 emissions (metric tons CO2e)

10154.96

(7.15.3.5) Comment

SF6 Fugitive Emissions

Combustion (Electric utilities)

(7.15.3.1) Gross Scope 1 CO2 emissions (metric tons CO2)

10546113

(7.15.3.2) Gross Scope 1 methane emissions (metric tons CH4)

23827

(7.15.3.3) Gross Scope 1 SF6 emissions (metric tons SF6)

0

(7.15.3.4) Total gross Scope 1 emissions (metric tons CO2e)

10569940

(7.15.3.5) Comment

APS Generation

Combustion (Gas utilities)

(7.15.3.1) Gross Scope 1 CO2 emissions (metric tons CO2)

0

(7.15.3.2) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.3.3) Gross Scope 1 SF6 emissions (metric tons SF6)

0

(7.15.3.4) Total gross Scope 1 emissions (metric tons CO2e)

0

(7.15.3.5) Comment

APS is not a gas utility

Combustion (Other)

(7.15.3.1) Gross Scope 1 CO2 emissions (metric tons CO2)

16304

(7.15.3.2) Gross Scope 1 methane emissions (metric tons CH4)

3.92

(7.15.3.3) Gross Scope 1 SF6 emissions (metric tons SF6)

0

(7.15.3.4) Total gross Scope 1 emissions (metric tons CO2e)

16308

(7.15.3.5) Comment

Diesel and gasoline from mobile fleet and generators

Emissions not elsewhere classified

(7.15.3.1) Gross Scope 1 CO2 emissions (metric tons CO2)

0

(7.15.3.2) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.3.3) Gross Scope 1 SF6 emissions (metric tons SF6)

0

(7.15.3.4) Total gross Scope 1 emissions (metric tons CO2e)

0

(7.15.3.5) Comment

No additional emissions to report

[Fixed row]

(7.16) Break down your total gross global Scope 1 and 2 emissions by country/area.

	Scope 1 emissions (metric tons CO2e)
United States of America	10628383.35

[Fixed row]

(7.17) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

Select all that apply

☒ By business division

☒ By facility

☒ By activity

(7.17.1) Break down your total gross global Scope 1 emissions by business division.

	Business division	Scope 1 emissions (metric ton CO2e)
Row 1	Generation. All emissions based on owned energy production.	10601843.43
Row 2	Transmission and Distribution. All emissions based on fleet and mobile generators.	16384.96

[Add row]

(7.17.2) Break down your total gross global Scope 1 emissions by business facility.

Row 1

(7.17.2.1) Facility

Four Corners Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

4548966

(7.17.2.3) Latitude

40.929011

(7.17.2.4) Longitude

-121.544389

Row 2

(7.17.2.1) Facility

Yucca Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

148129

(7.17.2.3) Latitude

32.715235

(7.17.2.4) Longitude

-114.710441

Row 3

(7.17.2.1) Facility

Sundance Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

287950

(7.17.2.3) Latitude

53.5075

(7.17.2.4) Longitude

-114.557222

Row 4

(7.17.2.1) Facility

Cholla Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

2077596

(7.17.2.3) Latitude

34.94

(7.17.2.4) Longitude

-110.33

Row 5

(7.17.2.1) Facility

Ocotillo Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

328286

(7.17.2.3) Latitude

33.4225

(7.17.2.4) Longitude

-111.9122

Row 6

(7.17.2.1) Facility

West Phoenix Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

1413864

(7.17.2.3) Latitude

33.773441

(7.17.2.4) Longitude

-84.394931

Row 7

(7.17.2.1) Facility

Douglas Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

121

(7.17.2.3) Latitude

31.363622

(7.17.2.4) Longitude

-109.552532

Row 8

(7.17.2.1) Facility

Saguaro Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

127426

(7.17.2.3) Latitude

32.552181

(7.17.2.4) Longitude

-111.298135

Row 10

(7.17.2.1) Facility

Redhawk Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

1670559

(7.17.2.3) Latitude

33.335833

(7.17.2.4) Longitude

-112.840528

[Add row]

(7.17.3) Break down your total gross global Scope 1 emissions by business activity.

	Activity	Scope 1 emissions (metric tons CO2e)
Row 1	Stationary Combustion	10601843.43
Row 2	Fugitive Combustion	10154.96
Row 4	Mobile Combustion	16384.96

[Add row]

(7.19) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e
Electric utility activities	10628383.35

[Fixed row]

(7.23) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Select from:

☒ Not relevant as we do not have any subsidiaries

(7.29) What percentage of your total operational spend in the reporting year was on energy?

Select from:

☒ More than 70% but less than or equal to 75%

(7.30) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Select from: ☒ Yes
Consumption of purchased or acquired electricity	Select from: ☒ No
Consumption of purchased or acquired heat	Select from:

	Indicate whether your organization undertook this energy-related activity in the reporting year
	☒ No
Consumption of purchased or acquired steam	Select from: ☒ No
Consumption of purchased or acquired cooling	Select from: ☒ No
Generation of electricity, heat, steam, or cooling	Select from: ☒ Yes

[Fixed row]

(7.30.6) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Select from: ☒ Yes
Consumption of fuel for the generation of heat	Select from: ☒ No
Consumption of fuel for the generation of steam	Select from: ☒ No
Consumption of fuel for the generation of cooling	Select from:

	Indicate whether your organization undertakes this fuel application
	☒ No
Consumption of fuel for co-generation or tri-generation	<i>Select from:</i> ☒ No

[Fixed row]

(7.30.7) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

Other biomass

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

Other renewable fuels (e.g. renewable hydrogen)

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

729967

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

Coal

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

6548451

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

Oil

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

420

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

Gas

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

9046223

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

Other non-renewable fuels (e.g. non-renewable hydrogen)

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

9250044

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

Total fuel

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

25757106

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

[Fixed row]

(7.30.16) Provide a breakdown by country/area of your electricity/heat/steam/cooling consumption in the reporting year.

United States of America

(7.30.16.2) Consumption of self-generated electricity (MWh)

36822727

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

36822727.00

[Fixed row]

(7.33) Does your electric utility organization have a transmission and distribution business?

Select from:

☒ Yes

(7.33.1) Disclose the following information about your transmission and distribution business.

Row 1

(7.33.1.1) Country/area/region

Select from:

☒ United States of America

(7.33.1.2) Voltage level

Select from:

☒ Distribution (low voltage)

(7.33.1.3) Annual load (GWh)

36823

(7.33.1.4) Annual energy losses (% of annual load)

3

(7.33.1.5) Scope where emissions from energy losses are accounted for

Select from:

☒ Scope 1

(7.33.1.6) Emissions from energy losses (metric tons CO2e)

538297

(7.33.1.7) Length of network (km)

65661

(7.33.1.8) Number of connections

1370986

(7.33.1.9) Area covered (km2)

88060

(7.33.1.10) Comment

APS owns transmission (above 69kV) and distribution lines. However, the majority of the lines are distribution so both types of lines are included in this response. The number of connections shown in the number of electric customers served at year end. Additionally, our line losses from purchased power are covered in our Scope 2 emissions. However, line losses for electricity we generate and distribute are accounted for at the point of generation, Scope 1. Since we cannot choose two scopes, for the purpose of this response, Scope 1 was chosen as the majority of the power we distribute is from power that we generate.
[Add row]

(7.45) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Row 1

(7.45.1) Intensity figure

0.002

(7.45.2) Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

10794100.65

(7.45.3) Metric denominator

Select from:

☒ unit total revenue

(7.45.4) Metric denominator: Unit total

4696000000

(7.45.5) Scope 2 figure used

Select from:

☒ Market-based

(7.45.6) % change from previous year

23

(7.45.7) Direction of change

Select from:

☒ Decreased

(7.45.8) Reasons for change

Select all that apply

☒ Change in renewable energy consumption

(7.45.9) Please explain

Reduction in Scope 1 emissions, and increase in total revenue

Row 2

(7.45.1) Intensity figure

0.304

(7.45.2) Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

10794100.65

(7.45.3) Metric denominator

Select from:

☒ megawatt hour transmitted (MWh)

(7.45.4) Metric denominator: Unit total

35541000

(7.45.5) Scope 2 figure used

Select from:

☒ Market-based

(7.45.6) % change from previous year

18

(7.45.7) Direction of change

Select from:

☒ Decreased

(7.45.8) Reasons for change

Select all that apply

☒ Change in renewable energy consumption

(7.45.9) Please explain

Scope 1 emissions decreased, and MWhr transmitted increased In 2023, gross combined Scope 1 and 2 emissions decreased. Scope 1 emissions decreased due to the increase of renewable generation in the Company's resource portfolio.
[Add row]

(7.46) For your electric utility activities, provide a breakdown of your Scope 1 emissions and emissions intensity relating to your total power plant capacity and generation during the reporting year by source.

Coal – hard

(7.46.1) Absolute scope 1 emissions (metric tons CO2e)

6626562

(7.46.2) Emissions intensity based on gross or net electricity generation

Select from:

☒ Gross

(7.46.3) Scope 1 emissions intensity (Gross generation)

936.88

(7.46.4) Scope 1 emissions intensity (Net generation)

1019.78

Oil

(7.46.1) Absolute scope 1 emissions (metric tons CO2e)

638

(7.46.2) Emissions intensity based on gross or net electricity generation

Select from:

☒ Gross

(7.46.3) Scope 1 emissions intensity (Gross generation)

862.16

(7.46.4) Scope 1 emissions intensity (Net generation)

886.11

Gas

(7.46.1) Absolute scope 1 emissions (metric tons CO2e)

3976215

(7.46.2) Emissions intensity based on gross or net electricity generation

Select from:

☒ Gross

(7.46.3) Scope 1 emissions intensity (Gross generation)

426.91

(7.46.4) Scope 1 emissions intensity (Net generation)

439.02

Nuclear

(7.46.1) Absolute scope 1 emissions (metric tons CO2e)

0

(7.46.2) Emissions intensity based on gross or net electricity generation

Select from:

☒ Gross

(7.46.3) Scope 1 emissions intensity (Gross generation)

0.00

(7.46.4) Scope 1 emissions intensity (Net generation)

0.00

Solar

(7.46.1) Absolute scope 1 emissions (metric tons CO2e)

0

(7.46.2) Emissions intensity based on gross or net electricity generation

Select from:

☒ Gross

(7.46.4) Scope 1 emissions intensity (Net generation)

0.00

Total

(7.46.1) Absolute scope 1 emissions (metric tons CO2e)

10603415

(7.46.2) Emissions intensity based on gross or net electricity generation

Select from:

☒ Gross

(7.46.3) Scope 1 emissions intensity (Gross generation)

406.84

[Fixed row]

(7.53) Did you have an emissions target that was active in the reporting year?

Select all that apply

☒ Absolute target

(7.53.1) Provide details of your absolute emissions targets and progress made against those targets.

Row 1

(7.53.1.1) Target reference number

Select from:

☒ Abs 1

(7.53.1.5) Date target was set

01/01/2020

(7.53.1.6) Target coverage

Select from:

☒ Organization-wide

(7.53.1.8) Scopes

Select all that apply

☒ Scope 1

☒ Scope 2

(7.53.1.9) Scope 2 accounting method

Select from:

☒ Market-based

(7.53.1.11) End date of base year

12/31/2005

(7.53.1.12) Base year Scope 1 emissions covered by target (metric tons CO2e)

16557441

(7.53.1.13) Base year Scope 2 emissions covered by target (metric tons CO2e)

126614

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

0.000

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

16684055.000

(7.53.1.33) Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

99.5

(7.53.1.34) Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

99.5

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

99.5

(7.53.1.54) End date of target

12/31/2032

(7.53.1.55) Targeted reduction from base year (%)

70

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

5005216.500

(7.53.1.57) Scope 1 emissions in reporting year covered by target (metric tons CO2e)

10628383.35

(7.53.1.58) Scope 2 emissions in reporting year covered by target (metric tons CO2e)

164171.3

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

10792554.650

(7.53.1.79) % of target achieved relative to base year

50.45

(7.53.1.80) Target status in reporting year

Select from:

☒ Underway

(7.53.1.82) Explain target coverage and identify any exclusions

In January 2020, the Company set the goal to deliver 100% clean, carbon-free electricity by 2050. This goal includes a nearer-term 2030 target of 65% clean energy, with 45% of our generation portfolio coming from renewable energy. We also plan to exit all coal-fired generation by 2031. The commitment is informed by consultations with Arizona universities and non-governmental organization experts. Their input is grounded in current, globally recognized climate science and provides a greater understanding of the impacts of our changing climate across the state. Our 2050 target is consistent with the Intergovernmental Panel on Climate Change's recommended timeframe for limiting global warming this century to 1.5C above pre-industrial levels. We will continue to monitor climate science developments to stay aligned with new research and recommendations. The target year of 2032 considers the first two milestones of our Clean Energy Commitment: with a nearer-term 2030 target of achieving a resource mix that is 65% clean energy, with 45% of our generation portfolio coming from renewable energy and ceasing reliance on coal-fired generation. Our 2023 Integrated Resource Plan (IRP) includes an Action Plan that lays out the near-term actions to make progress to our 2030 interim target and ultimate 2050 goal.

(7.53.1.84) Plan for achieving target, and progress made to the end of the reporting year

During 2023, the share of APS's energy supply from clean resources was 51%, which includes energy from nuclear, renewables and demand side management (DSM). According to our 2023 Integrated Resource Plan, we are on track to reach our goal of 65% clean resource mix by 2030. In addition, by 2030, 45% of our generation portfolio will be from renewable energy.

Row 3

(7.53.1.1) Target reference number

Select from:

☒ Abs 2

(7.53.1.5) Date target was set

01/01/2020

(7.53.1.6) Target coverage

Select from:

☒ Organization-wide

(7.53.1.8) Scopes

Select all that apply

☒ Scope 1

☒ Scope 2

(7.53.1.9) Scope 2 accounting method

Select from:

☒ Market-based

(7.53.1.11) End date of base year

12/31/2005

(7.53.1.12) Base year Scope 1 emissions covered by target (metric tons CO2e)

16557441.0

(7.53.1.13) Base year Scope 2 emissions covered by target (metric tons CO2e)

126614.0

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

0.000

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

16684055.000

(7.53.1.33) Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

99.5

(7.53.1.34) Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

99.5

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

99.5

(7.53.1.54) End date of target

12/31/2050

(7.53.1.55) Targeted reduction from base year (%)

100

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

0.000

(7.53.1.57) Scope 1 emissions in reporting year covered by target (metric tons CO2e)

10628383.35

(7.53.1.58) Scope 2 emissions in reporting year covered by target (metric tons CO2e)

164171.3

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

10792554.650

(7.53.1.79) % of target achieved relative to base year

35.31

(7.53.1.80) Target status in reporting year

Select from:

☒ Underway

(7.53.1.82) Explain target coverage and identify any exclusions

In January 2020, the Company set a goal to deliver 100% clean, carbon-free electricity by 2050. This goal includes a nearer-term 2030 target of 65% clean energy, with 45% of our generation portfolio coming from renewable energy. We also plan to exit coal-fired generation by 2031. The commitment is informed by consultations with Arizona universities and non-governmental organization experts. Their input is grounded in current, globally recognized climate science and provides a greater understanding of the impacts of our changing climate across the state. Our 2050 target is consistent with the Intergovernmental Panel on Climate Change's recommended timeframe for limiting global warming this century to 1.5C above pre-industrial levels. We will continue to monitor climate science developments to stay aligned with new research and recommendations.

(7.53.1.84) Plan for achieving target, and progress made to the end of the reporting year

During 2023, the share of APS's energy supply from clean resources was 51%, which includes energy from nuclear, renewables and demand side management (DSM). We are on track to reach our goal of 65% clean resource mix by 2030. In addition, by 2030, 45% of our generation portfolio will be from renewable energy. To date, APS has a diverse portfolio of existing and planned renewable resources totaling 5,010 MW, including solar, wind, geothermal, biomass and biogas. Of this portfolio, 3,072 MW are currently in operation and 1,938 MW are under contract for development or are under construction. Renewable resources in operation include 415 MW of facilities owned by APS, 1,034 MW of long-term purchased power agreements, and an estimated 1,623 MW of customer-sited, third-party owned distributed energy resources.

[Add row]

(7.54) Did you have any other climate-related targets that were active in the reporting year?

Select all that apply

☒ Net-zero targets

(7.54.1) Provide details of your targets to increase or maintain low-carbon energy consumption or production.

Row 2

(7.54.1.1) Target reference number

Select from:

☒ Low 1

(7.54.1.3) Target coverage

Select from:

☒ Organization-wide

(7.54.1.4) Target type: energy carrier

Select from:

☒ Electricity

(7.54.1.5) Target type: activity

Select from:

☒ Production

(7.54.1.6) Target type: energy source

Select from:

☒ Renewable energy source(s) only

(7.54.1.8) Consumption or production of selected energy carrier in base year (MWh)

324094.0

(7.54.1.9) % share of low-carbon or renewable energy in base year

1.1

(7.54.1.16) Is this target part of an emissions target?

Yes, this target is integral to meeting our renewable energy targets as laid out in our Clean Energy Commitment. In January 2020, APS announced its Clean Energy Commitment. By 2050, APS will provide 100% clean, carbon-free and affordable electricity to customers. The Clean Energy Commitment includes a 2030 target of achieving a resource mix that is 65% clean energy, with 45% of our generation portfolio coming from renewable energy. This 2030 target will serve as a critical

checkpoint for the company's resource planning, investment strategy, and customer affordability efforts as APS moves toward our commitment. APS's clean energy goals build on the company's history of promoting and integrating renewables, energy efficiency, battery storage, and carbon-free generation. Achieving these aggressive goals will require a combination of the right technologies, collaborative partnerships and a supportive policy environment that understands that flexibility is critical to balancing the building of clean energy generation, while maintaining affordability and reliability for our customers. As APS pursues its Clean Energy Commitment, the company will continue to install resources that allow it to comply with the Renewable Energy Standard and Tariff Rules.

(7.54.1.17) Is this target part of an overarching initiative?

Select all that apply

☒ Other, please specify :Our commitment to 100% clean, carbon-free energy by 2050.

(7.54.1.19) Explain target coverage and identify any exclusions

The Arizona Corporation Commission requires, through the Renewable Energy Standard and Tariff Rules (RES Rules), that 12.0% of the utility's 2022 retail kilowatt-hour sales come from eligible renewable energy resources. The RES Rules further mandate that 30% of that 12% be fulfilled with energy produced from Distributed Energy sources, one-half of which may come from residential applications and the remaining one-half from non-residential, nonutility applications. The RES Rules also mandates that 70% of the 12% of the utility's 2022 retail sales be fulfilled with energy produced from renewable generation resources. APS defines Renewable Generation as renewable resources interconnected on the utility side of the meter. Renewable Generation resources are grid-scale projects and apply to the RES Rules total production requirement.

[Add row]

(7.54.3) Provide details of your net-zero target(s).

Row 1

(7.54.3.1) Target reference number

Select from:

☒ NZ1

(7.54.3.2) Date target was set

01/01/2020

(7.54.3.3) Target Coverage

Select from:

☒ Organization-wide

(7.54.3.4) Targets linked to this net zero target

Select all that apply

☒ Abs1

☒ Abs2

(7.54.3.5) End date of target for achieving net zero

12/31/2050

(7.54.3.8) Scopes

Select all that apply

☒ Scope 1

☒ Scope 2

(7.54.3.10) Explain target coverage and identify any exclusions

Carbon-free energy means that no carbon is emitted to the atmosphere, which is going above and beyond net zero. In January 2020, the Company set the clean-energy goal to reach 100% clean, carbon-free electricity by 2050. This goal includes a nearer-term 2030 target of 65% clean energy, with 45% of our generation portfolio coming from renewable energy. We also plan to exit from coal-fired generation by 2031. The commitment is informed by consultations with Arizona universities and non-governmental organization experts. Their input is grounded in current, globally recognized climate science and provides a greater understanding of the impacts of our changing climate across the state. Our 2050 target is consistent with the Intergovernmental Panel on Climate Change's recommended timeframe for limiting global warming this century to 1.5C above pre-industrial levels. We will continue to monitor climate science developments to stay aligned with new research and recommendations.

[Add row]

(7.55) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Select from:

☒ No

(7.55.4) Why did you not have any emissions reduction initiatives active during the reporting year?

Our goals include adding clean resources to meet customers' growing energy needs. To date, APS has a diverse portfolio of existing and planned renewable resources totaling 5,010 MW, including solar, wind, geothermal, biomass and biogas. Of this portfolio, 3,072 MW are currently in operation and 1,938 MW are under contract for development or are under construction. Renewable resources in operation include 415 MW of facilities owned by APS, 1,034 MW of long-term purchased power agreements, and an estimated 1,623 MW of customer-sited, third-party owned distributed energy resources.

(7.58) Describe your organization's efforts to reduce methane emissions from your activities.

The natural gas consumed by APS is used as a fuel for our fleet of 37 natural gas-fired combustion turbines in Arizona and for start-up operations in certain coal units at our Four Corners and Cholla Power Plants in New Mexico and Arizona respectively. Due to the large amount of natural gas used by the facilities, APS works to properly manage and prevent inadvertent releases of methane to assure plant safety, environmental protection, and fiscal responsibility. Our main emission reduction efforts regarding methane include ensuring methane leaks do not go undetected by plant personnel. To do so, APS uses third-party companies to conduct methane leak detection surveys on the underground and accessible above – ground natural gas pipelines, valves, and gas conditioning system. Our eight fossil plants all have their own frequency of third-party inspections depending on various requirements: Four Corners Power Plant gets an annual inspection; Cholla Power Plant, Ocotillo Power Plant, Saguaro Power Plant, West Phoenix Power Plant and Yucca Power Plant get semi-annual inspections; Redhawk Power Plant and Sundance Power Plant get quarterly inspections. The surveys are conducted by a third party. Any leaks identified are tagged and a report is generated. The detected leaks are classified using ASTM B31.8 Appendix G-11 (1983) to determine severity and action criteria. The reports are sent to the Corporate Engineer who creates a service request for each plant in our internal work management system. The plant then schedules the repairs to be completed by maintenance or an outside vendor. The surveys start at the APS gas yards at each plant and cover the underground and accessible above-ground piping up to the unit. The contractor uses methane-specific intrinsically safe detection equipment. All new APS gas turbines installed since 2000 have gas detection monitors in the turbine compartments to ensure there are no leaks prior to starting the units. In addition, to assure continual safety of personnel and equipment, plant operators monitor and inspect the natural gas supply lines and gas conditioning equipment regularly. Plant operators record any identified methane leaks and issue work orders for plant maintenance to repair leaks as quickly as possible. The daily monitoring by plant personnel and the third-party natural gas detection inspections provides a process for APS to ensure any methane leaks are promptly identified and repaired. In 2023, APS continued to do surveys at the to meet our regulatory requirements and maintain our commitment to our leak detection program. Because large Grade 1 or 2 methane leaks at the sites are rare, a specific methane reduction target has not been established. However, the methane identification and reduction actions taken by the plant ensures emissions are minimized to maintain the plant in a safe condition, protect the environment from greenhouse gas emissions and maintain fiscal responsibility by ensuring natural resources are not wasted. APS is currently becoming engaged with various organizations to understand the larger issue of methane emissions associated with natural gas exploration, production, and distribution emissions methodology.

(7.74) Do you classify any of your existing goods and/or services as low-carbon products?

Select from:

☒ Yes

(7.74.1) Provide details of your products and/or services that you classify as low-carbon products.

Row 1

(7.74.1.1) Level of aggregation

Select from:

☒ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☒ No taxonomy used to classify product(s) or service(s) as low carbon

(7.74.1.3) Type of product(s) or service(s)

Power

☒ Solar PV

(7.74.1.4) Description of product(s) or service(s)

APS Green Choice program allows customers to purchase up to 100% of their power from renewable energy from Arizona and New Mexico. APS also offers a Green Power Program for businesses with three options for participation.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☒ No

Row 3

(7.74.1.1) Level of aggregation

Select from:

☒ Group of products or services

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☒ Other, please specify :Arizona Energy Efficiency Standard and all programs use ENERGY STAR products

(7.74.1.3) Type of product(s) or service(s)

Power

☒ Other, please specify :Energy Efficiency programs for customers, residential and commercial

(7.74.1.4) Description of product(s) or service(s)

APS offers customers a comprehensive portfolio of energy efficiency options.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☒ No

[Add row]

(7.79) Has your organization canceled any project-based carbon credits within the reporting year?

Select from:

☒ No

C9. Environmental performance - Water security

(9.1) Are there any exclusions from your disclosure of water-related data?

Select from:

☒ Yes

(9.1.1) Provide details on these exclusions.

Row 1

(9.1.1.1) Exclusion

Select from:

☒ Facilities

(9.1.1.2) Description of exclusion

Commercial office buildings and facilities not associated with power generation

(9.1.1.3) Reason for exclusion

Select from:

☒ Other, please specify :Small volume

(9.1.1.7) Percentage of water volume the exclusion represents

Select from:

☒ Less than 1%

(9.1.1.8) Please explain

The facilities are excluded because the amount of water used in office buildings is immaterial in comparison to the amount of water used in power generation, and the water is provided from sources that are not at risk of shortages. However, APS does monitor and track water usage in these facilities.

Row 2

(9.1.1.1) Exclusion

Select from:

☒ Facilities

(9.1.1.2) Description of exclusion

Douglas Power Plant

(9.1.1.3) Reason for exclusion

Select from:

☒ Other, please specify :Small volume

(9.1.1.7) Percentage of water volume the exclusion represents

Select from:

☒ Less than 1%

(9.1.1.8) Please explain

The Douglas Power Plant is excluded from our water consumption calculations because water consumption is minimal to support a net capacity of 16 MW. Water use at the Douglas plant in 2023 was 0.01 megaliters (3,100 gallons) and is considered de minimis to our overall water consumption for power generation.

[Add row]

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

Water withdrawals – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☒ 100%

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

Metering

(9.2.4) Please explain

APS measures and monitors 100% of our water withdrawals. The Cholla, Four Corners, Ocotillo, Palo Verde, Redhawk, Saguaro, Sundance, West Phoenix and Yucca power plants' water use is measured by direct metering from plant personnel and is submitted to Water Resource Management, and monthly reports are compiled and evaluated. This is performed daily or as needed to support operational and/or regulatory requirements. This information is provided to management in monthly progress reports and metric target reports. Because water use is vital for power production, it is important to track actual water usage as a baseline for water goal setting and to meet water conservation targets.

Water withdrawals – volumes by source

(9.2.1) % of sites/facilities/operations

Select from:

☒ 100%

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

(9.2.4) Please explain

APS measures withdrawals by source (e.g., groundwater, surface water, treated effluent). Withdrawals are measured by direct metering at each plant and the data is submitted to the Water Resource Management team. Measurement is performed daily or as needed to support operational and/or regulatory requirements, then provided to management in monthly progress and metric target reports. This information is reported to the Arizona Department of Water Resources and the New Mexico State Engineer as applicable. It is important to understand the source of the water withdrawal to identify potential watershed impacts and as a baseline for goal setting. In 2023, 71% of APS withdrawals were treated effluent (reclaimed water from municipal wastewater), 17% was surface water, and 12% was groundwater. By 2035, APS anticipates that approximately 95% of all withdrawals will be renewable and comparatively drought-proof treated effluent, 5% will be groundwater, and less than 1% will be surface water.

Water withdrawals quality

(9.2.1) % of sites/facilities/operations

Select from:

☒ 100%

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

(9.2.4) Please explain

APS measures and monitors water quality at the Cholla, Four Corners, Ocotillo, Palo Verde, Redhawk, Saguaro, Sundance, West Phoenix, and Yucca power plants to ensure that water chemistry will have no adverse impact on generation or on water delivery or treatment infrastructure. Tests are performed daily, or as needed, to support operational and/or regulatory requirements. This information is measured by direct analysis in on-site labs or via collected samples sent to contract labs. The data is then recorded in databases and reported to the Arizona Department of Environmental Quality on frequencies as dictated by plant-specific permits.

Water discharges – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☒ 100%

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

Metering

(9.2.4) Please explain

APS measures and monitors 100% of water discharge volumes at the Cholla, Four Corners, Ocotillo, Palo Verde, Redhawk, Saguaro, Sundance, West Phoenix, and Yucca power plants. A portion of the blowdown water is treated then recycled and reused at the plants and/or nearby agricultural areas. The remainder is discharged to a sanitary sewer, discharged to a river, or is discharged into evaporation ponds. Measurement is performed daily to support operational and/or regulatory requirements. Information is collected through direct metering and is provided to Water Resource Management, then provided to management in monthly progress and metric target reports. This information is reported on an annual basis to the Arizona Department of Water Resources, quarterly to the Arizona Department of Environmental Quality and monthly to the New Mexico State Engineer for compliance purposes as applicable. Accurate measurement of discharge data is needed to calculate and report water consumption.

Water discharges – volumes by destination

(9.2.1) % of sites/facilities/operations

Select from:

☒ 100%

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

Metering

(9.2.4) Please explain

APS measures and monitors 100% of water discharge volumes by destination at all nine APS power plants. A portion of the blowdown water is treated then recycled and reused at the plants and/or nearby agricultural areas. The remainder is discharged to a sanitary sewer, discharged to a river, or is discharged into ponds. This information is collected daily through direct metering and is provided to Water Resource Management then provided to management in monthly progress and metric target reports. We report this information annually to the Arizona Department of Water Resources, quarterly to the Arizona Department of Environmental Quality and monthly to the New Mexico State Engineer for compliance purposes as applicable. Tracking the volume discharged by destination provides data regarding potential impacts on the Phoenix AMA and the San Juan watershed. Discharge quantity to the San Juan River is important because it provides critical flows to support endangered fish species.

Water discharges – volumes by treatment method

(9.2.1) % of sites/facilities/operations

Select from:

☒ 100%

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

Metering

(9.2.4) Please explain

APS measures and monitors 100% of our water discharge volumes at our power plants by treatment method. A portion of our blowdown water is treated then recycled and reused at the plants and/or nearby agricultural areas. The remainder is discharged to a sewer, river, or ponds. Measurement is performed daily or as needed. This information is collected through direct metering and is provided to Water Resource Management where reports are compiled and evaluated in monthly progress and metric target reports. We report this water discharge volume on an annual basis to the New Mexico State Engineer, quarterly to the Arizona Department

of Environmental Quality, and USEPA Region IX for compliance purposes as applicable. APS treatment methods are identified in procedures at each power plant to optimize and encourage recycling when possible. Discharge volume, water quality, discharge locations, and impacts to the watershed are accurately recorded and reported as required in site-specific permits.

Water discharge quality – by standard effluent parameters

(9.2.1) % of sites/facilities/operations

Select from:

☒ 100%

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

Metering

(9.2.4) Please explain

APS measures and monitors the water discharge quality data at all plants that discharge to waters of the U.S. or to publicly owned treatment works to ensure effluent quality standards are met. In some cases, water quality is measured daily. A portion of our blowdown water is treated and reused at the plants and/or nearby agricultural areas. The remainder is discharged to a sanitary sewer, discharged to a river, or is discharged into evaporation ponds. Water quality information for discharges to municipal publicly owned treatment works is reported to the Cities of Tempe and Phoenix, Arizona as applicable. Additional wastewater discharge quality information is reported to the Arizona Department of Environmental Quality (ADEQ) and our Four Corners discharge data are reported to USEPA Region IX, (as to Four Corners discharges) and must meet federal for compliance requirements.

Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)

(9.2.1) % of sites/facilities/operations

Select from:

☒ Not relevant

(9.2.4) Please explain

APS has multiple environmental compliance programs that protect water ecosystems and human health from potential water pollutants associated with our business activities. Examples include our National Pollutant Discharge Elimination System (NPDES) and Arizona Aquifer Protection Permit compliance programs. NPDES compliance efforts identify and classify potential water pollutants in permitted discharges from our facilities into regulated waterways through internal monitoring of existing pollutants and ensuring that all treatment system discharges comply with permit limits, Pre-treatment Local Limits and/or Surface Water Quality Standards, as applicable. We adhere to Clean Water Act requirements to identify and treat, if present, discharge of conventional pollutants (BOD, TSS, pH, oil and grease), 65 Priority Pollutants, and 126 Priority Toxic Pollutants.

Water discharge quality – temperature

(9.2.1) % of sites/facilities/operations

Select from:

☒ 100%

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

Metering

(9.2.4) Please explain

APS monitors water temperature at each plant that has a surface water discharge permit with a requirement to do so (either for direct discharge or via a publicly owned treatment works). Water temperature is measured continuously with an autoanalyzer at APS's Four Corners Power Plant in accordance with the facility's National Pollutant Discharge Elimination System (NPDES) permit issued by USEPA Region IX. At our West Phoenix Power Plant, temperature is monitored on a weekly basis per the facility's wastewater discharge permit issued by the City of Phoenix.

Water consumption – total volume

(9.2.1) % of sites/facilities/operations

Select from:

☒ 100%

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

Metering

(9.2.4) Please explain

APS measures and monitors 100% of our water consumption by total volume at the Cholla, Four Corners, Ocotillo, Palo Verde, Redhawk, Saguaro, Sundance, West Phoenix, and Yucca power plants. This information is collected daily through direct metering and is provided to Water Resource Management, then provided to management in monthly progress and metric target reports. This information is also reported on an annual basis to the Arizona Department of Water Resources and monthly to the New Mexico State Engineer for compliance purposes. Other water uses, such as in office buildings and service centers are served by a municipal provider. APS's Facilities department monitors water consumption in office buildings and service centers. In 2023, APS plants total water consumption was approximately 126,425 megaliters. By 2035, we estimate total water consumption will be approximately 98,000 megaliters, a reduction of over 22%.

Water recycled/reused

(9.2.1) % of sites/facilities/operations

Select from:

☒ 100%

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

Metering

(9.2.4) Please explain

APS measures 100% of water that is recycled/reused at Redhawk, West Phoenix, Palo Verde (PVGS) Cholla and Four Corners (4C). Water use is measured at West Phoenix and Redhawk, which utilize zero-liquid discharge (ZLD) systems. PVGS is a ZLD facility, recycling 95% of water used. Cholla is a ZLD facility that uses a cooling lake and towers; 95% of Cholla's water is recycled. 4C uses a cooling lake with a water recirculating system. Of the water withdrawn from the San Juan River, approximately 1% was returned back to the River in 2023. The remaining water is routed through the plant's cooling-water recirculation system, where approximately 99% of the water withdrawn from the River is recirculated for cooling. Cycles of concentration are monitored on a daily basis. This information is collected through direct metering, it is reported monthly to management, monthly to the NM State Engineer, and annually to the ADWR.

The provision of fully-functioning, safely managed WASH services to all workers

(9.2.1) % of sites/facilities/operations

Select from:

☒ 100%

(9.2.2) Frequency of measurement

Select from:

☒ Other, please specify :As required by SDWA or other applicable regulations

(9.2.3) Method of measurement

Direct monitoring

(9.2.4) Please explain

APS provides fully functioning water, sanitation and hygiene services to all workers and directly measures and monitors these systems at all nine power plants. The Ocotillo and West Phoenix Power Plants utilize drinking water provided by the Cities of Tempe and Phoenix, respectively. APS plants that have their own permitted drinking water systems are operated by licensed operators and receive routine inspections from regulators. Drinking water is tested daily or as required by the Safe Drinking Water Act and local ordinance. Water quality tests are performed on-site or via a contracted and certified laboratory to confirm compliance with maximum contaminant levels on schedules identified in their permits. Backflow prevention assemblies are tested annually. Annual reports from Arizona plants are sent to the Arizona Department of Environmental Quality to document compliance with Safe Drinking Water Act provisions. Four Corners reports are sent to USEPA Region IX.
[Fixed row]

(9.2.2) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, how do they compare to the previous reporting year, and how are they forecasted to change?

Total withdrawals

(9.2.2.1) Volume (megaliters/year)

127092

(9.2.2.2) Comparison with previous reporting year

Select from:

☒ Lower

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☒ Other, please specify :Minimal change in operations

(9.2.2.4) Five-year forecast

Select from:

☒ Lower

(9.2.2.5) Primary reason for forecast

Select from:

☒ Facility closure

(9.2.2.6) Please explain

The total withdrawals at the Cholla, Four Corners, Ocotillo, Palo Verde, Redhawk, Saguaro, Sundance, West Phoenix, and Yucca Power plants for 2023 (127,092 megaliters/year) were lower than in 2022 (134,500 megaliters/year). This is 5.5% less than in 2022. (Year-to-year changes less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower". Year-to-year changes over 15% are considered "much higher"/"much lower".)

Total discharges

(9.2.2.1) Volume (megaliters/year)

623

(9.2.2.2) Comparison with previous reporting year

Select from:

☒ Much lower

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☒ Other, please specify :Change in operational conditions

(9.2.2.4) Five-year forecast

Select from:

☒ Higher

(9.2.2.5) Primary reason for forecast

Select from:

☒ Other, please specify :Change in operational conditions

(9.2.2.6) Please explain

The total discharge at the Four Corners, Ocotillo, and West Phoenix Power Plants were much lower in 2023 (623 megaliters/year) than in 2022 (1,922 megaliters/year). The discharges were much lower than last year (67.6%) for the plants that have a discharge component. This was primarily due to operational changes at Four Corners. Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower". Year-to-year changes over 15% are considered "much higher"/"much lower".

Total consumption

(9.2.2.1) Volume (megaliters/year)

126469

(9.2.2.2) Comparison with previous reporting year

Select from:

☒ About the same

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☒ Other, please specify :Minimal change in operations

(9.2.2.4) Five-year forecast

Select from:

☒ Lower

(9.2.2.5) Primary reason for forecast

Select from:

☒ Facility closure

(9.2.2.6) Please explain

The total consumption at the Cholla, Four Corners, Ocotillo, Palo Verde, Redhawk, Saguaro, Sundance, West Phoenix, and Yucca Power Plants for 2023 (126,469 megaliters/year) were about the same as in 2022 (128,648 megaliters/year) due to generation being about the same. This is a 4.6% reduction. Our reported volumes of water of are calculated by the following formula: 126,469 (total consumption) 127,092 (total withdrawals) – 623 (total discharges). Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

[Fixed row]

(9.2.4) Indicate whether water is withdrawn from areas with water stress, provide the volume, how it compares with the previous reporting year, and how it is forecasted to change.

(9.2.4.1) Withdrawals are from areas with water stress

Select from:

☒ No

(9.2.4.8) Identification tool

Select all that apply

☒ Other, please specify :Bureau of Reclamation modeling and groundwater flow modeling

(9.2.4.9) Please explain

APS requires each plant to demonstrate the water availability and pumping capacity to support 100% of plant generating capacity during the summer run, the period of greatest potential stress. All of our plants have access to freshwater that meet the demands of generation. APS holds more than sufficient rights at each plant and has infrastructure to deliver water to each plant. For example, the Palo Verde Generation Station and Redhawk Power Plant use treated effluent, which is considered a drought-resistant supply, because water conservation during a drought is primarily to reduce outdoor water use, not indoor water use. Indoor water use is what supplies effluent to water treatment facilities that provide water to Palo Verde and Redhawk. Our contracted supply of treated effluent is of adequate quantity and quality for the generation needs of these plants through 2050. 71% of all APS power plant water consumption was treated effluent in 2023. The remaining 29% is groundwater or surface water is protected by water rights, contracts, and agreements. Although drought continues in the western U.S. and in the Colorado River Basin, APS supported the Lower Colorado River Drought Contingency Plan endorsed by Arizona, Nevada, California, and Mexico, resulting in more water being stored in Lake Mead and protecting the region against serious future water shortages. In 2023, U.S. Secretary of the Interior declared a Tier 1 shortage on the Colorado River. Even in the event of a more severe water shortage declaration on the Colorado River, APS power plants will not be impacted due to water rights, contracts, agreements, and reliance on essentially drought-proof treated effluent.

[Fixed row]

(9.2.7) Provide total water withdrawal data by source.

Fresh surface water, including rainwater, water from wetlands, rivers, and lakes

(9.2.7.1) Relevance

Select from:

☒ Relevant

(9.2.7.2) Volume (megaliters/year)

22782

(9.2.7.3) Comparison with previous reporting year

Select from:

☒ Lower

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.7.5) Please explain

Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

Brackish surface water/Seawater

(9.2.7.1) Relevance

Select from:

☒ Not relevant

Groundwater – renewable

(9.2.7.1) Relevance

Select from:

☒ Not relevant

Groundwater – non-renewable

(9.2.7.1) Relevance

Select from:

☒ Relevant

(9.2.7.2) Volume (megaliters/year)

14891

(9.2.7.3) Comparison with previous reporting year

Select from:

☒ Lower

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☒ Other, please specify :Minimal change in operations

(9.2.7.5) Please explain

Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

Produced/Entrained water

(9.2.7.1) Relevance

Select from:

☒ Not relevant

Third party sources

(9.2.7.1) Relevance

Select from:

☒ Relevant

(9.2.7.2) Volume (megaliters/year)

89419

(9.2.7.3) Comparison with previous reporting year

Select from:

☒ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☒ Other, please specify :Minimal change in operations

(9.2.7.5) Please explain

Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

[Fixed row]

(9.2.8) Provide total water discharge data by destination.

Fresh surface water

(9.2.8.1) Relevance

Select from:

☒ Relevant

(9.2.8.2) Volume (megaliters/year)

181

(9.2.8.3) Comparison with previous reporting year

Select from:

☒ Much lower

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☒ Other, please specify :Change in operations

Brackish surface water/seawater

(9.2.8.1) Relevance

Select from:

☒ Not relevant

Groundwater

(9.2.8.1) Relevance

Select from:

☒ Not relevant

Third-party destinations

(9.2.8.1) Relevance

Select from:

☒ Relevant

(9.2.8.2) Volume (megaliters/year)

442

(9.2.8.3) Comparison with previous reporting year

Select from:

☒ About the same

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☒ Other, please specify :Minimal operational change

(9.2.8.5) Please explain

Permitted discharges to sanitary sewer

[Fixed row]

(9.2.9) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

Tertiary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☒ Not relevant

Secondary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☒ Not relevant

Primary treatment only

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☒ Not relevant

Discharge to the natural environment without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☒ Relevant

(9.2.9.2) Volume (megaliters/year)

181

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☒ Much lower

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☒ Other, please specify :Change in operations

Discharge to a third party without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☒ Relevant

(9.2.9.2) Volume (megaliters/year)

442

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☒ About the same

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☒ Other, please specify :Minimal operational change

Other

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☒ Not relevant

[Fixed row]

(9.3) In your direct operations and upstream value chain, what is the number of facilities where you have identified substantive water-related dependencies, impacts, risks, and opportunities?

Direct operations

(9.3.1) Identification of facilities in the value chain stage

Select from:

☒ Yes, we have assessed this value chain stage and identified facilities with water-related dependencies, impacts, risks, and opportunities

(9.3.2) Total number of facilities identified

(9.3.3) % of facilities in direct operations that this represents

Select from:

☒ 76-99

Upstream value chain

(9.3.1) Identification of facilities in the value chain stage

Select from:

☒ No, we have not assessed this value chain stage for facilities with water-related dependencies, impacts, risks, and opportunities, and are not planning to do so in the next 2 years

[Fixed row]

(9.3.1) For each facility referenced in 9.3, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Row 1

(9.3.1.1) Facility reference number

Select from:

☒ Facility 1

(9.3.1.2) Facility name (optional)

Palo Verde Generating Station

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals only

(9.3.1.7) Country/Area & River basin

United States of America

☒ Other, please specify :Phoenix Active Management Area

(9.3.1.8) Latitude

33.395277

(9.3.1.9) Longitude

-112.858333

(9.3.1.10) Located in area with water stress

Select from:

☒ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☒ Nuclear

(9.3.1.13) Total water withdrawals at this facility (megaliters)

87135

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

63

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

2039

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

85033

(9.3.1.27) Total water consumption at this facility (megaliters)

87135

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ About the same

(9.3.1.29) Please explain

Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

Row 2

(9.3.1.1) Facility reference number

Select from:

☒ Facility 9

(9.3.1.2) Facility name (optional)

Yucca Power Plant

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals only

(9.3.1.7) Country/Area & River basin

Afghanistan

☒ Other, please specify :Colorado River

(9.3.1.8) Latitude

32.719722

(9.3.1.9) Longitude

-114.713333

(9.3.1.10) Located in area with water stress

Select from:

☒ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☒ Gas

(9.3.1.13) Total water withdrawals at this facility (megaliters)

137

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Much lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.27) Total water consumption at this facility (megaliters)

137

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ Much lower

(9.3.1.29) Please explain

Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

Row 3

(9.3.1.1) Facility reference number

Select from:

☒ Facility 5

(9.3.1.2) Facility name (optional)

Sundance Power Plant

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals only

(9.3.1.7) Country/Area & River basin

Afghanistan

☒ Other, please specify :Pinal Active Management Area

(9.3.1.8) Latitude

32.927941

(9.3.1.9) Longitude

-111.588993

(9.3.1.10) Located in area with water stress

Select from:

☒ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☒ Gas

(9.3.1.13) Total water withdrawals at this facility (megaliters)

397

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Higher

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

397

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.27) Total water consumption at this facility (megaliters)

397

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ Higher

(9.3.1.29) Please explain

Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

Row 4

(9.3.1.1) Facility reference number

Select from:

☒ Facility 7

(9.3.1.2) Facility name (optional)

Cholla Power Plant

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals only

(9.3.1.7) Country/Area & River basin

Afghanistan

☒ Other, please specify :Joseph City Irrigation Non-expansion Area

(9.3.1.8) Latitude

34.940654

(9.3.1.9) Longitude

-110.299623

(9.3.1.10) Located in area with water stress

Select from:

☒ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☒ Coal - hard

(9.3.1.13) Total water withdrawals at this facility (megaliters)

7370

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

264

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

7106

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.27) Total water consumption at this facility (megaliters)

7370

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ Lower

(9.3.1.29) Please explain

Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

Row 6

(9.3.1.1) Facility reference number

Select from:

☒ Facility 6

(9.3.1.2) Facility name (optional)

Saguaro Power Plant

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals only

(9.3.1.7) Country/Area & River basin

Afghanistan

☒ Other, please specify :Tucson Active Management Area

(9.3.1.8) Latitude

32.553903

(9.3.1.9) Longitude

-111.299829

(9.3.1.10) Located in area with water stress

Select from:

☒ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☒ Gas

(9.3.1.13) Total water withdrawals at this facility (megaliters)

17

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Much lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

17

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.27) Total water consumption at this facility (megaliters)

17

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ Much lower

(9.3.1.29) Please explain

Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

Row 7

(9.3.1.1) Facility reference number

Select from:

☒ Facility 3

(9.3.1.2) Facility name (optional)

West Phoenix Power Plant

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☒ Other, please specify :Phoenix Active Management Area

(9.3.1.8) Latitude

33.440277

(9.3.1.9) Longitude

-112.162777

(9.3.1.10) Located in area with water stress

Select from:

☒ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☒ Gas

(9.3.1.13) Total water withdrawals at this facility (megaliters)

4515

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Much higher

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

4515

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

384

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☒ About the same

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

384

(9.3.1.27) Total water consumption at this facility (megaliters)

4131

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ Much higher

(9.3.1.29) Please explain

Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

Row 8

(9.3.1.1) Facility reference number

Select from:

☒ Facility 8

(9.3.1.2) Facility name (optional)

Four Corners Power Plant

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☒ Other, please specify :San Juan River Basin

(9.3.1.8) Latitude

36.685009

(9.3.1.9) Longitude

-108.479176

(9.3.1.10) Located in area with water stress

Select from:

☒ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☒ Coal - hard

(9.3.1.13) Total water withdrawals at this facility (megaliters)

22059

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

22059

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

181

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☒ Much lower

(9.3.1.23) Discharges to fresh surface water

181

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

21877

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ Lower

(9.3.1.29) Please explain

Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

Row 9

(9.3.1.1) Facility reference number

Select from:

☒ Facility 2

(9.3.1.2) Facility name (optional)

Redhawk Power Plant

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals only

(9.3.1.7) Country/Area & River basin

Afghanistan

☒ Other, please specify :Phoenix Active Management Area

(9.3.1.8) Latitude

33.336229

(9.3.1.9) Longitude

-112.840533

(9.3.1.10) Located in area with water stress

Select from:

☒ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☒ Gas

(9.3.1.13) Total water withdrawals at this facility (megaliters)

4987

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

601

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

4386

(9.3.1.27) Total water consumption at this facility (megaliters)

4987

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ About the same

(9.3.1.29) Please explain

Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

Row 10

(9.3.1.1) Facility reference number

Select from:

☒ Facility 4

(9.3.1.2) Facility name (optional)

Ocotillo Power Plant

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☒ Other, please specify :Phoenix Active Management Area

(9.3.1.8) Latitude

33.428888

(9.3.1.9) Longitude

-111.910277

(9.3.1.10) Located in area with water stress

Select from:

☒ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☒ Gas

(9.3.1.13) Total water withdrawals at this facility (megaliters)

476

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Much lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

476

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

58

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☒ Much lower

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

58

(9.3.1.27) Total water consumption at this facility (megaliters)

419

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ Much lower

(9.3.1.29) Please explain

Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

[Add row]

(9.3.2) For the facilities in your direct operations referenced in 9.3.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

(9.3.2.1) % verified

Select from:

☒ 76-100

(9.3.2.2) Verification standard used

APS's water withdrawal data was verified in accordance with the guidelines set forth in the International Standard on Assurance Engagements (ISAE) 3000.

Water withdrawals – volume by source

(9.3.2.1) % verified

Select from:

☒ 76-100

(9.3.2.2) Verification standard used

APS's water withdrawal data was verified in accordance with the guidelines set forth in the International Standard on Assurance Engagements (ISAE) 3000.

Water withdrawals – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:

☒ 76-100

(9.3.2.2) Verification standard used

APS's water withdrawal data was verified in accordance with the guidelines set forth in the International Standard on Assurance Engagements (ISAE) 3000.

Water discharges – total volumes

(9.3.2.1) % verified

Select from:

☒ 76-100

(9.3.2.2) Verification standard used

APS's water discharge data was verified in accordance with the guidelines set forth in the International Standard on Assurance Engagements (ISAE) 3000.

Water discharges – volume by destination

(9.3.2.1) % verified

Select from:

☒ 76-100

(9.3.2.2) Verification standard used

APS's water discharge data was verified in accordance with the guidelines set forth in the International Standard on Assurance Engagements (ISAE) 3000.

Water discharges – volume by final treatment level

(9.3.2.1) % verified

Select from:

☒ 76-100

(9.3.2.2) Verification standard used

APS's water discharge data was verified in accordance with the guidelines set forth in the International Standard on Assurance Engagements (ISAE) 3000.

Water discharges – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:

☒ 76-100

(9.3.2.2) Verification standard used

APS's water discharge data was verified in accordance with the guidelines set forth in the International Standard on Assurance Engagements (ISAE) 3000.

Water consumption – total volume

(9.3.2.1) % verified

Select from:

☒ 76-100

(9.3.2.2) Verification standard used

APS's water consumption data was verified in accordance with the guidelines set forth in the International Standard on Assurance Engagements (ISAE) 3000.
[Fixed row]

(9.5) Provide a figure for your organization's total water withdrawal efficiency.

(9.5.1) Revenue (currency)

4695990

(9.5.2) Total water withdrawal efficiency

36.95

(9.5.3) Anticipated forward trend

Future water withdrawals will decrease as plant exits occur and more renewable energy that requires less water is added to the generation mix. Therefore, increases in revenue and decreases in water withdrawal will result in increases in water withdrawal efficiency.
[Fixed row]

(9.7) Do you calculate water intensity for your electricity generation activities?

Select from:

☒ Yes

(9.7.1) Provide the following intensity information associated with your electricity generation activities.

Row 1

(9.7.1.1) Water intensity value (m3/denominator)

2.55

(9.7.1.2) Numerator: water aspect

Select from:

☒ Total water consumption

(9.7.1.3) Denominator

Select from:

☒ MWh

(9.7.1.4) Comparison with previous reporting year

Select from:

☒ About the same

(9.7.1.5) Please explain

The water intensity value is the average of the Cholla, Four Corners, Ocotillo, Palo Verde, Redhawk, Saguaro, Sundance, West Phoenix, and Yucca Power Plants in 2023. Generation from 2022 (53,431,118 MWh) to 2023 (49,820,383 MWh) was 6.8% lower overall, and water intensity was about the same (2.48 cubic meters per MWh in 2022 compared to 2.55 cubic meters per MWh in 2023). Water intensity is used internally to track progress towards achieving APS goals to reduce water intensity of power served to APS customers and is expected to decrease approximately 50% from 2020 levels by 2035 as outlined in our Integrated Resource Plan. We plan to achieve this goal by retiring older, more water-intensive units and replacing them with more water efficient units, relying more on renewable energy that uses minimal water, and implementing water conservation plans at all power plants. Year-to-year changes of less than 5% are considered "about the same." Year-to-year changes between 5% and 15% are considered "higher"/"lower." Year-to-year changes over 15% are considered "much higher"/"much lower."

[Add row]

(9.13) Do any of your products contain substances classified as hazardous by a regulatory authority?

	Products contain hazardous substances
	Select from: ☒ No

[Fixed row]

(9.14) 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
	Select from: ☒ Yes	Power generation that does not consume water	Renewable power, including for example wind and PV solar generation, are examples of low water impact products that APS delivers to customers.

[Fixed row]

(9.15) Do you have any water-related targets?

Select from:

☒ Yes

(9.15.1) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.

	Target set in this category
Water pollution	<i>Select from:</i> ☒ No, and we do not plan to within the next two years
Water withdrawals	<i>Select from:</i> ☒ Yes
Water, Sanitation, and Hygiene (WASH) services	<i>Select from:</i> ☒ No, and we do not plan to within the next two years
Other	<i>Select from:</i> ☒ No, and we do not plan to within the next two years

[Fixed row]

(9.15.2) Provide details of your water-related targets and the progress made.

Row 1

(9.15.2.1) Target reference number

Select from:

☒ Target 1

(9.15.2.2) Target coverage

Select from:

☒ Organization-wide (direct operations only)

(9.15.2.3) Category of target & Quantitative metric

Water withdrawals

☒ Other water withdrawals, please specify :Reliability

(9.15.2.4) Date target was set

01/01/2019

(9.15.2.5) End date of base year

12/31/2018

(9.15.2.6) Base year figure

0

(9.15.2.7) End date of target year

12/31/2023

(9.15.2.8) Target year figure

1

(9.15.2.9) Reporting year figure

1

(9.15.2.10) Target status in reporting year

Select from:

☒ Underway

(9.15.2.11) % of target achieved relative to base year

100

(9.15.2.13) Explain target coverage and identify any exclusions

The 2023 result was 99% Equivalent Availability Factor (EAF) reliability, on-target. A goal of 100% EAF was established for 2024.
[Add row]

C10. Environmental performance - Plastics

(10.1) Do you have plastics-related targets, and if so what type?

	Targets in place
	Select from: ☒ No, and we do not plan to within the next two years

[Fixed row]

C11. Environmental performance - Biodiversity

(11.2) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Actions taken in the reporting period to progress your biodiversity-related commitments
	Select from: ☒ No, we are not taking any actions to progress our biodiversity-related commitments, but we plan to within the next two years

[Fixed row]

(11.3) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?
	Select from: ☒ No, we do not use indicators, but plan to within the next two years

[Fixed row]

(11.4) Does your organization have activities located in or near to areas important for biodiversity in the reporting year?

	Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity
Legally protected areas	<i>Select from:</i> ☒ Not assessed
UNESCO World Heritage sites	<i>Select from:</i> ☒ Not assessed
UNESCO Man and the Biosphere Reserves	<i>Select from:</i> ☒ Not assessed
Ramsar sites	<i>Select from:</i> ☒ Not assessed
Key Biodiversity Areas	<i>Select from:</i> ☒ Not assessed
Other areas important for biodiversity	<i>Select from:</i> ☒ Not assessed

[Fixed row]

C13. Further information & sign off

(13.1) Indicate if any environmental information included in your CDP response (not already reported in 7.9.1/2/3, 8.9.1/2/3/4, and 9.3.2) is verified and/or assured by a third party?

	Other environmental information included in your CDP response is verified and/or assured by a third party
	Select from: ☒ Yes

[Fixed row]

(13.1.1) Which data points within your CDP response are verified and/or assured by a third party, and which standards were used?

Row 1

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☒ Water

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Water security

☒ Water discharges– total volumes

☒ Water withdrawals– total volumes

(13.1.1.3) Verification/assurance standard

General standards

☒ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

The water use and discharge data has been verified for CY2023: Palo Verde, Four Corners, Redhawk, Cholla, Ocotillo, Saguaro, Sundance, West Phoenix, and Yucca. APS's water withdrawal and discharge data was verified in accordance with the guidelines set forth in the International Standard on Assurance Engagements (ISAE) 3000. Verification of APS's water data for CY2023 was constructed to provide a reasonable level of assurance.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

APS CY2023_Verification Opinion_v2.pdf

[Add row]

(13.3) Provide the following information for the person that has signed off (approved) your CDP response.

(13.3.1) Job title

Director of Sustainability

(13.3.2) Corresponding job category

Select from:

☒ Environment/Sustainability manager

[Fixed row]

(13.4) Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.

Select from:

☒ Yes, CDP may share our Disclosure Submission Lead contact details with the Pacific Institute

