SRP GREENHOUSE GAS EMISSIONS

What are greenhouse gases and where do they come from?

Greenhouse gases (GHGs) are gases in Earth's atmosphere that trap heat. There are many types of GHGs, and although most of these gases occur naturally, human activity has increased their concentration in the atmosphere, mostly from the extraction, combustion and delivery of fossil fuels like coal, gasoline and natural gas for electricity production and transportation. Other sources include chemical consumption, livestock cultivation and cement production. In 2022, 28% of Arizona's carbon emissions came from the transportation sector, 25% from the electric power sector, and 23% from industrial sources, according to the U.S. Environmental Protection Agency (EPA).[1]

According to research conducted by the United Nations Intergovernmental Panel on Climate Change (IPCC), science validates that higher levels of GHG concentrations in the atmosphere trap more heat, causing global and local changes in weather patterns.[2] Different regions will experience different challenges, but the general trend across the globe is that habitats and the climate are changing faster than ecosystems can adapt, with a range of potential implications.[3]

What is SRP doing to reduce our GHG footprint?

SRP believes we have a responsibility to be part of the global solution, which is why we voluntarily report our companywide emissions metrics each year to the public and to The Climate Registry. We also obtain rigorous third-party verification of our scope 1 and 2 emission metrics to a reasonable level of assurance.[4] Understanding our footprint helps us make important choices to drive emission reductions for the benefit of our customers and the environment while continuing to provide the affordable and reliable water and power that our communities have counted on for over 120 years.

Today, about 32% of SRP's retail energy mix is carbon-free or renewable. By 2035, we are planning for approximately 75% of SRP's retail energy mix to be carbon-free or renewable. Additionally, we are exploring innovative solutions to unlock affordable and reliable pathways to even greater reductions by evaluating technologies like long-duration energy storage and new nuclear generation.

How does SRP measure our greenhouse gas emissions?

SRP conducts an annual Greenhouse Gas Inventory that quantifies emissions from all operations we have full or partial ownership of, and it includes all GHGs relevant to our operations: CO_2, CH_4, N_2O, HFCs, PFCs and SF_6. Best practice accounting protocols are the foundation of our reporting[5,6], and they help categorize our emission sources into three groups called scopes. Scope 1 and 2 emissions are required reporting in a GHG Inventory, while reporting of scope 3 emissions is optional.

- **Scope 1:** Emissions directly caused by SRP operations, which include power generation, operating auxiliary boilers (stationary combustion), heating and cooling corporate buildings, driving fleet vehicles (mobile combustion), and leak-based (fugitive) emissions from landfills, coal piles, refrigerants, reservoirs and transmission equipment.
- **Scope 2:** Indirect emissions produced in support of SRP operations, which include purchased electricity for SRP operations, transmission and distribution (T&D) losses from delivering purchased power to SRP customers across SRP lines, and T&D losses from wheeling and interchange across SRP lines.
- **Scope 3:** Value chain emissions associated with SRP operations, which include procuring goods and services (categories 1 and 2), extracting and transporting purchased fuels (category 3), generation of purchased power sold to retail and wholesale customers (category 3), T&D losses from purchased electricity consumed in SRP operations (category 3), producing waste (category 5), traveling for business (category 6), employee commuting (category 7), and leasing certain buildings (category 8).

How many greenhouse gas emissions did SRP produce this year (May 2023–April 2024)?

16,295,354
Metric tons of CO_2 equivalent **(scope 1)**

94,829
Metric tons of CO_2 equivalent **(scope 2)**

5,014,000
Metric tons of CO_2 equivalent **(scope 3)**

26% reduction in scope 1 and 2 emissions since 2016, which is equivalent to not burning 651 million gallons of gasoline or growing 95 million trees for 10 years.

Scope 3 emissions have increased by 70% since 2018 due to increased power purchases resold to customers.

SRP has an ambitious set of 2035 Sustainability Goals that includes a commitment to reduce carbon dioxide (CO_2) emissions from generation sold to retail customers (per MWh) by 82% from 2005 levels by 2035 (~284 lbs/MWh) and a 2050 goal of net-zero carbon emissions. Visit **srp.net/2035** to learn more.

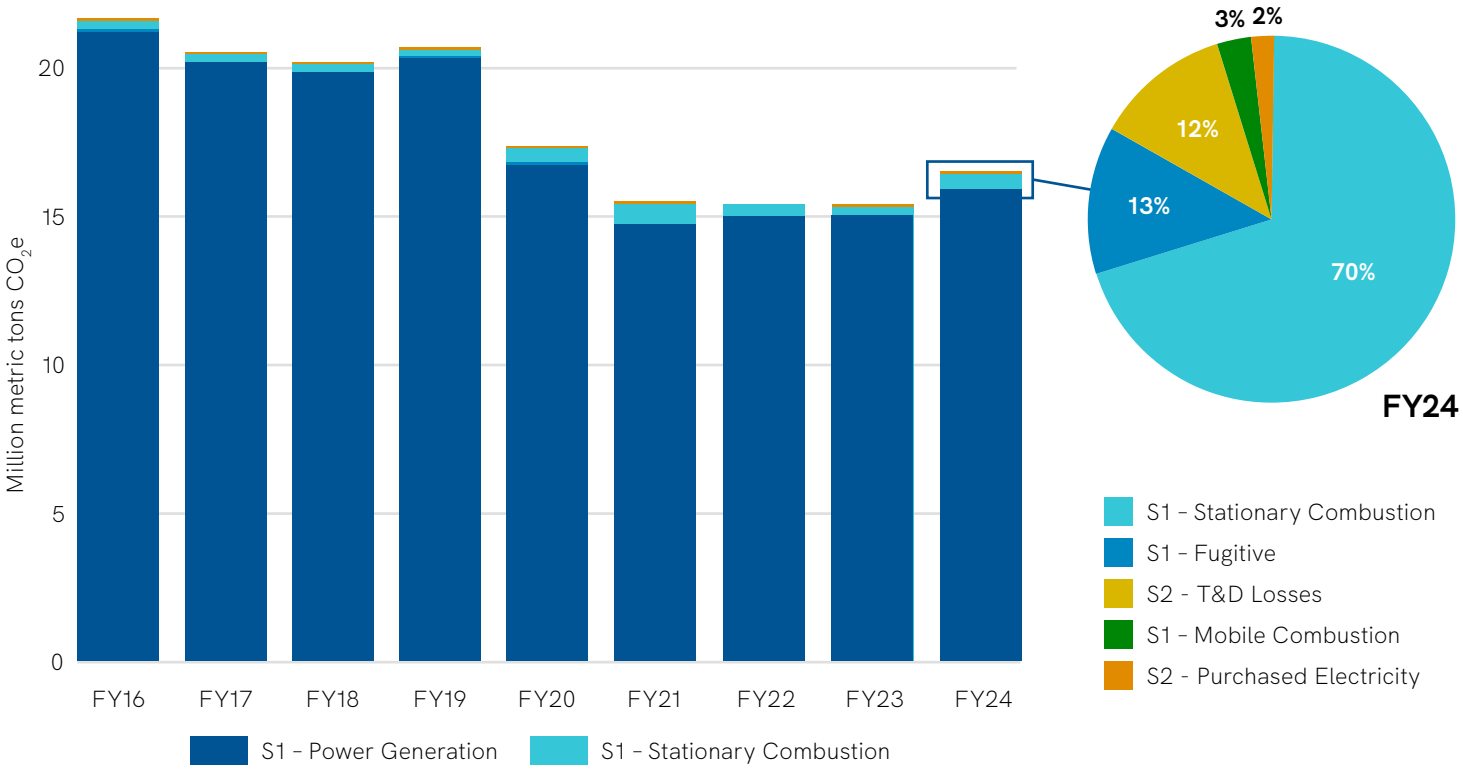
[1]U.S. Environmental Protection Agency. *Greenhouse Gas Inventory Data Explorer.* **https://cfpub.epa.gov/ghgdata/inventoryexplorer/**
[2]UN Intergovernmental Panel on Climate Change. *Climate Change 2021: The Physical Science Basis.* **https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/**
[3]UN Intergovernmental Panel on Climate Change. *Climate Change 2022: Impacts, Adaptation, and Vulnerability.* **https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/**
[4]The Climate Registry. *Salt River Project Member Page.* **https://theclimateregistry.org/members/salt-river-project/**
[5]World Resources Institute. Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, and Corporate Value Chain (Scope 3) Standard. **https://ghgprotocol.org/corporate-standard**
[6]The Climate Registry, *General Reporting Protocol v. 3.0 and Electric Power Sector Protocol v. 1.3.* **https://www.theclimateregistry.org/**

SCOPE 1 AND 2 GHG EMISSIONS FY16–FY24

The information contained in this fact sheet is a summary of the Scope 1 and 2 GHG Emissions associated with SRP's owned assets. Fluctuations[1,2,3] are due to changes in volume of generation and the carbon footprint associated with generation resources.

SRP'S SCOPE 1 AND 2 GHG EMISSIONS FY16-FY24[4]

Million Metric Tons CO_2e	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Scope 1	**22.09**	**20.94**	**19.97**	**20.85**	**17.19**	**15.34**	**15.32**	**15.38**	**16.30**
Fugitive	0.12	0.08	0.09	0.09	0.08	0.10	0.07	0.11	**0.09**
Mobile Combustion	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	**0.02**
Power Generation	21.62	20.64	19.65	20.54	16.59	14.63	14.92	14.92	**15.69**
Stationary Combustion	0.33	0.20	0.22	0.21	0.51	0.63	0.32	0.32	**0.49**
Scope 2 – Location-Based	**0.11**	**0.11**	**0.09**	**0.06**	**0.08**	**0.15**	**0.11**	**0.11**	**0.13**
Scope 2 – Market-Based[5]	**0.10**	**0.09**	**0.07**	**0.05**	**0.06**	**0.12**	**0.10**	**0.09**	**0.10**
Scope 1 & 2 Market-Based	**22.18**	**21.03**	**20.05**	**20.90**	**17.25**	**15.50**	**15.42**	**15.47**	**16.39**
Net Generation SRP Owned Asset[6] (MWh millions)	**32.7**	**32.9**	**31.4**	**34.6**	**31.7**	**31.3**	**29.1**	**30.7**	**33.3**



Observations

Overall, total scope 1 emissions increased between FY23 and FY24, primarily due to SRP generating more power to serve retail customers in FY24. SRP delivered a record amount of energy to retail customers in FY24 due to several factors, including extreme daytime temperatures and higher overnight temperatures throughout the summer and fall and an increase in the number of SRP commercial and residential electric customers. Total scope 2 market-based emissions also increased from FY23 to FY24 due to increases in purchased utilities. SRP also purchased power to sell to retail customers in FY24, the emissions from which are included in scope 3 (see page 3).[7]

[1] Scope 1 and 2 emissions verified and published annually to The Climate Registry.

[2] These emissions from FY16-FY24 include historical changes due to data updates or clarifications. These changes did not meet SRP's significance threshold and therefore did not require restating of emissions back to baseline year or reverification. During the FY24 calculation process, the following updates were made: Updated fugitive SF6 emissions (FY22, FY23).

[3] During the FY24 calculation process, the Global Warming Potential (GWP) values were updated to use IPCC Fifth Assessment Report values (AR5). This is best-practice to be in alignment with the GWPs used in the latest U.S. National GHG Inventory. This update was taken back to baseline values and is reflected in all values throughout this fact sheet.

[4] SRP's fiscal year runs from May 1 to April 30 and is named according to the ending month and year. FY24 time period is May 1, 2023, to April 30, 2024.

[5] SRP quantifies both location- and market-based emissions. Market-based emissions account for renewable and supplier-specific power purchases.

[6] Generation is net of station service and includes acquisitions for all years, matching the boundary of emissions (aligns with GHG Protocol).

[7] Year-over-year operational fluctuations between scope 1 and 3 emissions do not require a base year adjustment per Electric Power Sector protocol guidance section 7.2.

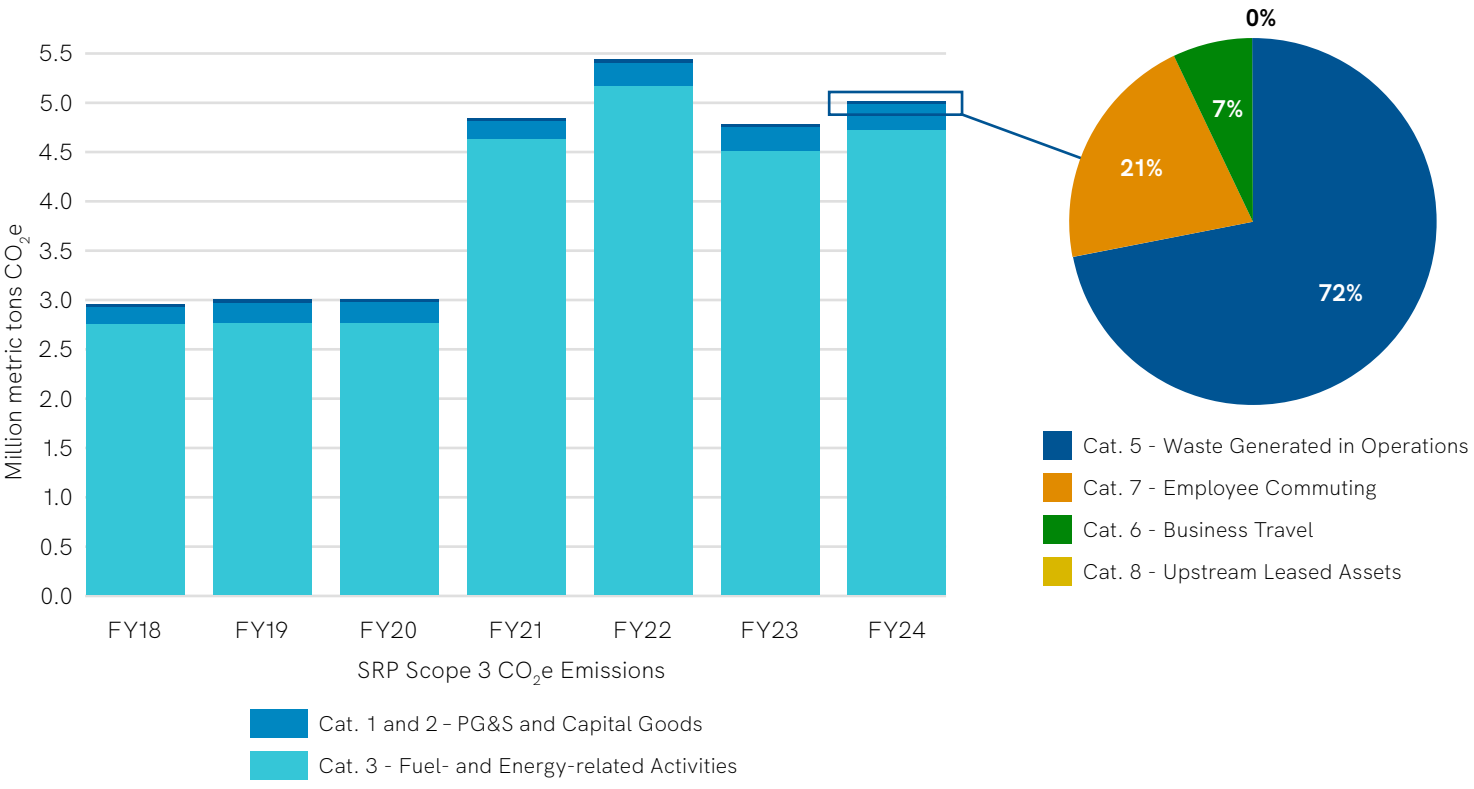
SCOPE 3 GHG EMISSIONS FY18–FY24

The information contained in this fact sheet is a summary of the scope 3 GHG emissions primarily associated with SRP's direct purchases of fuels, generation and indirect purchases of other goods and services.

SRP'S SCOPE 3 GHG EMISSIONS FY18–FY24

Million Metric Tons of CO_2e	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Scope 3	**2.96**	**2.98**	**3.0**	**4.85**	**5.43**	**4.80**	**5.01**
Categories 1 and 2 – Purchased Goods and Services and Capital Goods	0.15	0.18	0.17	0.17	0.22	0.27	**0.28**
Category 3 – Fuel- and Energy-related Activities	2.80	2.79	2.81	4.67	5.19	4.52	**4.72**
Category 5 – Waste Generated in Operations	NA	NA	0.01	0.01	0.02	0.01	**0.01**
Category 6 – Business Travel	0.002	0.002	0.001	<0.000	<0.000	0.001	**0.001**
Category 7 – Employee Commuting	0.004	0.004	0.005	0.003	0.002	0.002	**0.003**
Category 8 – Upstream Leased Assets	<0.000	<0.000	<0.000	<0.000	<0.000	<0.000	**<0.000**

Note: Numbers rounded to reflect inherent uncertainty in scope 3 emissions. Category 5 emissions were not calculated in FY18 and FY19.



Observations

Fuel- and Energy-related Activities (Category 3) and Purchased Goods and Services and Capital Goods (Categories 1 and 2) account for 99% of Scope 3 emissions. Scope 3 emissions remained consistent FY18-FY20, then increased substantially in FY21, remaining elevated through FY24. This increase in Scope 3 emissions starting in FY21 was caused by an increase in power purchases needed to meet SRP's retail load as reflected in Category 3 emissions. Subsequent fluctuations were due, in part, to changes in coal and natural gas fuel pricing from year to year impacting power purchasing decisions. Emissions from Purchased Goods and Services and Capital Goods increased slightly in FY24 corresponding with an increase in overall spend. SRP uses a spend-based approach for calculating emissions from Purchased Goods and Services and Capital Goods. These calculations are adjusted to reflect annual inflation by using the U.S. Bureau of Economic Analysis (BEA) inflation data.

HOW SRP'S 2035 SUSTAINABILITY GOALS CONTRIBUTE TO REDUCING GREENHOUSE GAS EMISSIONS

SRP's comprehensive set of 2035 Sustainability Goals lead SRP to meaningfully reduce carbon emissions across our operations in a variety of ways. The table below displays SRP's direct and indirect greenhouse gas (GHG) emissions and the portion of those emissions that are addressed by one of SRP's Sustainability Goals. Our goals include both commitments to specifically address emission reductions (indicated in the table below) as well as many other initiatives that contribute to broader economy-wide decarbonization and community benefits like reducing waste and encouraging sustainable suppliers. Visit **srp.net/2035** for more information. *Data refers to SRP's Fiscal Year 2024 (FY24) Greenhouse Gas Inventory that includes emissions produced from May 2023–April 2024.*

Emission Sources	FY24 GHG Emissions (MMT CO_2e)		SRP 2035 Sustainability Goals Directly Addressing Emission Source
	Total	Directly Addressed By SRP 2035 Sustainability Goals	
Scope 1			
Power Generation - SRP-owned electric generation sold to customers	11.15	11.15	**Generation Carbon (for retail energy)** — Reduce the amount of CO_2 emitted by generation (per MWh) by 82% from 2005 levels by 2035 (from 1,576 to ~284 lbs/MWh) — 2050 goal: Net-zero carbon emissions
Power Generation - SRP-owned electric generation sold to power markets and other utilities	4.54	-	
Mobile Combustion - SRP-owned or leased fleet vehicle fuel use	0.02	0.02	**Transportation Fleet Carbon** — Reduce carbon emissions from fleet by 30% on a mass basis from 2016 baseline
Fugitive - SRP-owned electric transmission equipment, reservoirs, coal piles, refrigerants, and landfill	0.09	<0.00	**Facilities Carbon** — Reduce carbon emissions from facilities by 45% on a mass basis from 2016 baseline
Stationary Combustion - SRP-owned auxiliary boilers and generation, other equipment fuel use	0.49	0.19	**Generation Carbon (for retail energy)** — Reduce the amount of CO_2 emitted by generation (per MWh) by 82% from 2005 level by 2035 (from 1,576 to ~284 lbs/MWh) — 2050 goal: Net-zero carbon emissions **Facilities Carbon** — Reduce carbon emissions from facilities by 45% on a mass basis from 2016 baseline
Total Scope 1 Emissions	**16.30**	**11.36**	**% of Scope 1 Emissions Addressed By Sustainability Goals 70%**
Scope 2			
Market-Based - SRP-owned facility electricity use	0.01	<0.00	**Facilities Carbon** — Reduce carbon emissions from facilities by 45% on a mass basis from 2016 baseline
Market-Based - Line losses from purchased electric generation	0.08	0.07	**Generation Carbon (for retail energy)** — Reduce the amount of CO_2 emitted by generation (per MWh) by 82% from 2005 levels by 2035 (~284 lbs/MWh) — 2050 goal: Net-zero carbon emissions
Total Scope 2 Emissions	**0.09**	**0.07**	**% of Scope 2 Emissions Addressed By Sustainability Goals 80%**
Scope 3			
Categories 1 and 2 - Procurement of goods and services	0.28	-	
Category 3 - Purchased electric generation sold to customers	1.68	1.68	**Generation Carbon (for retail energy)** — Reduce the amount of CO_2 emitted by generation (per MWh) by 82% from 2005 levels by 2035 (~284 lbs/MWh) — 2050 goal: Net-zero carbon emissions
Category 3 - Purchased electric generation sold to power markets and other utilities	0.45	-	
Category 3 - Extraction, production, and transportation of fuels used in SRP-owned operations	2.23	-	
Category 3 - Extraction, production, and transportation of fuels associated with purchased electric generation	0.36	-	
Category 3 - Line losses from purchased electricity used in SRP-owned facilities	<0.00	-	
Category 5 - Waste transportation and disposal	0.01	-	
Category 6 - Business travel	<0.00	-	
Category 7 - Employee commuting	<0.00	-	
Category 8 - Leased facility electricity use	<0.00	-	
Total Scope 3 Emissions	**5.01**	**1.68**	**% of Scope 3 Emissions Addressed By Sustainability Goals 34%**
Total Emissions (Millions Metric Tons CO_2e)	**21.40**	**13.11**	**% of Total Emissions Addressed By Sustainability Goals 61%**

Delivering water and power®

2680097 06/25