

# Appendix O.

## Energy Information Reporting

This appendix provides guidance for required reporting of the energy information associated with sources of water used by the urban water supplier as required by Water Code Section 10631.2(a). This section of the urban water management plan (UWMP) is now required, whereas in the 2015 UWMP it was voluntary. The law specifies that information is required if the Supplier can readily obtain the information. If complete data are not readily obtainable, estimates, informed judgements, and assumptions are recommended to be used to fill in missing information.

### *Water Code Section 10631.2(a)*

*In addition to the requirements of Section 10631, an urban water management plan shall include any of the following information that the urban water supplier can readily obtain:*

- A. An estimate of the amount of energy used to extract or divert water supplies.*
- B. An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems.*
- C. An estimate of the amount of energy used to treat water supplies.*
- D. An estimate of the amount of energy used to distribute water supplies through its distribution systems.*
- E. An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies.*
- F. An estimate of the amount of energy used to place water into or withdraw from storage.*
- G. Any other energy-related information the urban water supplier deems appropriate.*

### *Water Code Section 10631.2 (b)*

*The department shall include in its guidance for the preparation of urban water management plans a methodology for the voluntary calculation or estimation of the energy intensity of urban water systems. The department may consider studies and calculations conducted by the Public Utilities Commission in developing the methodology.*

Energy (used and/or generated) reporting has many benefits for water suppliers and their customers including:

Identifying energy saving opportunities as energy consumption is often a large portion of the cost of delivering water.

Calculating energy savings and greenhouse gas (GHGs) emissions reductions associated with water conservation programs.

Potential opportunities for receiving energy efficiency funding for water conservation programs.

Informing climate change mitigation strategies.

Benchmarking of energy use or generation at each water acquisition and delivery step and the ability to compare energy use and generation among similar agencies.

## **O.1 Water Energy Intensity Defined**

Water energy intensity is the total amount of energy, calculated on a whole-system basis, required for the use of a given amount of water in a specific location (Wilkinson 2000). This guidance provides a methodology and tools for reporting energy use information. This information be used to calculate the operational energy intensity, which is defined as the total amount of energy expended by the urban water supplier on a per acre-foot (AF, or other unit) basis to take water from the location where the urban water supplier acquires the water to its point of delivery. A Supplier may opt to use a different volumetric unit than acre feet (AF) to report its information. Each table has a drop-down menu allowing the Supplier to report what units are used. Note that calculating energy intensity is not required, but that the information that is readily obtainable by a Supplier that would go into such a calculation is required.

For the purposes of the required water energy reporting for urban water management plans, urban water Suppliers are only expected to report the energy use information associated with *water management processes*

occurring within their *operational control*. Any energy embedded in water supplies by an upstream water supplier (such as a water wholesaler) is not intended to be included in the energy intensity reported in Table O-1. Urban water suppliers that wish to report the embedded energy of their water supplies are encouraged to do so by adding additional text and tables in the Water Energy section of their respective UWMP. In cases where the urban water supplier does include the upstream embedded energy of their water supplies into their information reported, Tables O-1A, O-1B, O1C and O-2 now includes a checkbox to allow for the Supplier to make note of this distinction.

## **O.2 Overview of Energy Reporting Guidance and Operational Control**

This guidance is intended to cover reporting of the energy use and/or generation of water supplies within a supplier's operational control for extraction, diversion, conveyance, placement into storage, treatment, and distribution for at least one-year time period or averaged across multiple years (no more than five years). Operational control in this context is defined as authority over normal business operations at the operational level. Thus, an urban water supplier would likely *not* have *operational control* over systems from which the urban water supplier purchases water (e.g., the State Water Project and other wholesale water supplies) and, accordingly, would not include energy use information for those systems.

## **O.3 Reporting Methods**

The availability of water-related energy-consumption data varies greatly across urban water management wholesaler and retail Suppliers. This guidance is intended to accommodate a range of energy consumption detail. Three reporting options are provided; urban water suppliers should decide which level of reporting to provide based on the resolution of obtainable energy-consumption data. Suppliers can use one of the Tables O-1A (Approach A), O-1B (Approach B), or O-1C (Approach C), as applicable for the Supplier's organization and data availability. Using the more detailed reporting approach (A) will provide water managers with the best understanding of the energy intensity of their systems and how energy consumption of water management operations compares throughout the state.

Water Supply Process Approach (A): Report energy information that can be used to calculate energy intensity by water management operation (aggregated across all supply sources). Enter amount of energy consumed for extraction, conveyance, placement into storage, treatment, and distribution (See Table O-1A).

Total Utility Approach (B): Report information that can be used to calculate a single energy intensity for all water management operations. Enter total energy consumed or generated by agency's water operations. The agency's energy intensity is automatically calculated as the ratio of energy consumption over volume of water entering the distribution system (See Table O-1B).

Multiple Water Delivery Products (C): Water Supply Process Approach (A) methodology with additional functionality for reporting information in a way that allows for calculating energy intensity by water delivery product (retail potable, retail non-potable, wholesale potable, wholesale non-potable, agricultural, environmental, and other deliveries.). See Table O-1C for an example.

## **O.4 Reporting Period**

This guidance uses a one-year reporting period. Ideally, the reporting period will match the 2020 period selected by the supplier for other sections for their UWMP. If energy consumption data is not readily obtainable for the 2020 time period, suppliers can select an alternate one-year reporting period. As with other elements of the UWMP, only one year of data is being requested. Suppliers wishing to report multiple years of energy-intensity data can do so by populating Table O-1 with data for multiple one-year periods or by taking an average across multiple years.

## **O.5 Water Delivery Product**

The type of water delivered by supplier can significantly impact the reported energy intensity. For the purposes of this guidance, water delivery products include retail potable, retail non-potable, wholesale potable, wholesale non-potable, agricultural, environmental, and other deliveries. Tables O-1A and O-1B request that suppliers report a single type of water delivered. Suppliers delivering more than one type of water should use Table O-1C.

## O.6 Water Management Processes

Water management processes are defined as extract and divert, place into storage, conveyance, treatment, and distribution. Urban water suppliers using Table O-1A or Table O-1C will report the amount of energy consumed or generated by and the volume of water entering each water management process. Some water management processes can also generate energy, including conveyance and distribution system hydropower. Although the definitions for each water management process define clear boundaries between the system components, in reality, these boundaries can be blurred. For example, an agency may pump high-quality groundwater from a well and add small amounts of chlorine at the well for disinfection prior to distribution to customers. In this case, the energy requirements for groundwater pumping and chlorine injection are likely captured by a single electricity meter and there is no way to distinguish between the energy requirements for source water extraction and treatment. Using this analytical framework, the user will have to rely on their judgement to either partition the energy consumption between the two processes or classify the energy requirements as source extraction or treatment. Either method or classification is acceptable. To avoid double counting, the user must be sure not to include the energy requirements as both source extraction and treatment.

## O.7 Volume of Water

**Volume of Water Entering Water Management Process:** Many urban water suppliers have multiple water supplies; each of these supplies may have different water management process characteristics (e.g., some supplies, but not all, will pass through the extract and divert, place into storage, conveyance or treatment processes). For Table O1-A only, the volume of water is entered for each water management process to account for the differences in volume of water passing through each water management processes. The volume of water entered in the “Total Utility” column should equal the volume of water entering the distribution system; in most cases, this is the total volume calculated in UWMP Table 4-1: Demands for Potable and Non-Potable Water – Actual. Recycled water should not be included in the water volumes (see discussion of recycled water in Section O.12).

## **O.8 Hydropower and other Electricity Generation within the Water System**

### **O.8.1 Consequential Hydropower Generation**

Consequential hydropower generation occurs where energy generation is a direct consequence of water delivery. All water passing through the energy generation devices is delivered to users and an interruption in water deliveries would result in an interruption in energy generation. An example of consequential hydropower generation is the State Water Project's Warner, Alamo, and Devils Canyon energy recovery power plants. Consequential hydropower generation should be netted from the total amount of energy consumed or generated by each water delivery process. If consequential hydropower generation is greater than the amount of total energy consumed, energy intensity will be a negative value, meaning that the water delivery is a net negative energy consumer or a net positive energy generator.

### **O.8.2 Non-Consequential Hydropower Generation (optional)**

Non-consequential hydropower generation is defined as power generated by water systems where the generation of electricity is not directly connected to water deliveries (i.e., energy could be generated even if no water were being delivered to water users). An example of non-consequential hydropower generation is the energy generated from the State Water Project by the Hyatt-Thermalito Powerplant at Oroville Dam. Water flowing out of Oroville Dam generates electricity. The water is then released to the Feather River channel where it could replenish groundwater, support environmental needs, flow out to sea or be delivered to SWP customers. There are many challenges in appropriating non-consequential hydropower generation; this guidance provides the option to include non-consequential hydropower generation, but does not provide a detailed methodology for partitioning hydropower production amongst multiple users or benefits. Urban water suppliers that wish to include non-consequential hydropower generated from facilities *within their operational control* can do so by entering the amount of energy produced by hydropower facilities as a negative value. The urban water supplier will also have to provide a volume of water passing through the hydropower generation process to calculate a per AF energy intensity metric. The determination of how to quantify the amount of water passing through the hydropower generation process is left up to the urban water supplier and should be described in the narrative portion of the submission.

### O.8.3 Self-Generated Energy Sources

Self-generated or other on-site energy generation should not be netted out from energy consumed. If self-generated energy (i.e., solar, wind, geothermal, biomass, co-generation, diesel generator) is directly consumed by a water management process (generation “behind the meter”), add the estimated amount of energy produced by the self-generation source to the metered energy consumption for the appropriate water management process. Although energy production from self-generated energy sources is not considered in these energy intensity calculations, it should be included when considering GHG emissions associated with water management. Suppliers that want to report self-generated renewable energy can do so in Table O-1 and in the narrative section of this chapter.

## O.9 Groundwater Banking

This guidance does not address how to incorporate the energy intensity from groundwater banking operations. It is possible to include the energy intensity from groundwater banking in the “place into storage” water management process. If groundwater banking operations occur within the urban water supplier’s operational control, please include a brief discussion of how groundwater banking was addressed in energy-intensity calculations or provide a general overview of how groundwater banking would impact the overall energy intensity of water supplies.

## O.10 Place into Storage

This is the amount of energy consumed or generated within supplier’s *operational control* to place water into a storage reservoir or groundwater bank less any *consequential hydropower generation*. Because only one year of data is being requested, the volume of water entering the “extract and divert” and “place into storage” processes may be substantially different from the volume of water entering the distribution system. If inter-annual storage occurs, the total and net calculated energy intensities may not fully reflect the energy applied to the water prior to placement into multi-year storage. Suppliers with inter-annual storage should address this issue by providing a qualitative discussion of how inter-annual storage operations would have impacted the total utility and net utility energy intensities.

## **O.11 Wastewater Energy Intensity**

For suppliers that do not provide wastewater treatment services, the reporting guidelines for wastewater will not apply. But, for suppliers that do provide wastewater collection, treatment, or discharge services within their operational control a separate reporting table (Table O-2) is provided to report energy use information for these processes. The energy intensity of wastewater operations is the amount of energy consumed within an urban water supplier's *operational control* to collect, treat, and dispose of wastewater from domestic and industrial sources less any consequential energy production, divided by the amount of water entering the wastewater treatment plant(s).

Wastewater specific definitions are provided in Section O.15.

## **O.12 Recycled Water Energy Intensity**

Recycled water is reported separately from other water supplies because it is currently not utilized as a direct potable water supply. For urban water Suppliers that do not provide recycled water, the reporting guidelines for recycled water will not apply. But, for urban water Suppliers that do provide recycled water conveyance, treatment, or distribution services within their operational control, a separate reporting table (Table O-2) is available to report energy use information for these processes.

The energy intensity of recycled water operations is the incremental amount of energy consumed within an urban water Supplier's operation control to convey, treat, and distribute recycled water supplies that exceeds the amount of energy that otherwise would have been required to collect, treat, and discharge wastewater effluent divided by the amount of water entering the recycled water distribution system. Recycled water definitions are provided in Section O.16.

## **O.13 Report Narrative**

Please provide a narrative for each water supply discussing water management processes in which energy is consumed or produced. Please also provide a narrative documenting data sources, assumptions and methods used to report energy information.

This guidance and associated reporting tables do not capture all of the water-energy complexities or issues that may be of interest to a Supplier.



Suppliers are encouraged to include additional tables, charts, text, and other additional water-energy information that are of interest.

## O.14 General Definitions

### **Consequential Hydropower Generation (kilowatt hour [kWh]):**

Amount of energy generated using turbines or other generation devices to generate electricity from falling water where the energy generation is a direct consequence of water delivery. Water passing through the energy generation devices is delivered to users.

**Conveyance (kWh):** Amount of energy consumed within an UWMP's operational control to transport untreated water through aqueducts, canals, and pipelines from its source to a water treatment facility or directly to an end user less any consequential hydropower generation. This does not include any energy expended by a water wholesaler (e.g., the California Department of Water Resources [DWR] for the conveyance of State Water Project supplies). For wholesale water supplies, the conveyance energy to be reported by the Supplier is the energy expended only by the urban water Supplier itself to transport the water from the point at which it receives the water from the wholesaler to the urban water Supplier's treatment plant.

**Data Quality:** The urban water Supplier is asked to make a subjective assessment of the quality of the data that is being provided in Table O-1. DWR recognizes that energy use reporting for water supplies may be new for some urban water Suppliers and that some processes may not be submetered to allow for precise quantification of energy use. Estimates and informed judgement by the water supplier should be used to provide as much information as possible.

**Distribution (kWh):** Amount of energy expended or generated within an urban water supplier's operational control to transport treated water from the treatment plant or wellhead disinfection point to the point of delivery. For treated wholesale water supplies, distribution starts at the point where the urban water supplier takes control of water. Reported distribution energy should include only energy expended or generated by the urban water supplier to transport water from the point it receives the water to the point of delivery less any consequential hydropower generation.

**Embedded Energy in Wholesale Water Supplies:** Energy that has been applied to a water supply by all upstream wholesalers. Embedded energy in

wholesale water supplies is not included in this energy intensity reporting. Urban water Suppliers that wish to report embed energy can do so by adding additional text and tables in the Water Energy section of their respective UWMP.

**Energy Intensity (kWh/AF or selected unit):** Quantity of energy consumed or generated divided by volume of water entering the water management process. A measure of the required amount of energy needed to take a unit volume of water from its starting location through all necessary steps to its point of use.

**Extract and Divert (kWh):** Amount of energy consumed within an urban water Supplier's operational control to remove water from a channel, pipeline, stream, or aquifer less any consequential hydropower generation.

**Kilowatt-hour (kWh):** A measure of electricity defined as a unit of work or energy, measured as 1 kilowatt (1,000 watts) of power expended for one hour. One kWh is equivalent to 3,412 Btu.

**Net Utility Energy Consumed (kWh):** Total energy consumed within an urban water supplier's operational control for all water management processes less any non-consequential hydropower production. [Net Utility Energy Consumed = Total Utility Energy Consumed + (- Hydropower)]

**Net Utility Energy Intensity (kWh/AF or selected unit):** Net utility energy consumed divided by volume of water entering distribution system. [Net Utility Energy Intensity = Net Utility Energy Consumed / Total Utility Volume of Water Entering Process]

**Non-Consequential Hydropower Generation:** Amount of energy generated using turbines or other generation devices to generate electricity from falling water where the energy generation is not a direct consequence of water delivery. If water that has generated electricity is released to natural channels and may or may not end up being delivered to an end user, the generation should be considered non-consequential hydropower generation. [Enter as negative value in spreadsheet.]

**Operational Control:** Authority over normal business operations at the operational level. This would not include other systems from which the urban water supplier purchases water.

**Place into Storage (kWh):** Amount of energy consumed within an urban water supplier's operational control to place water into a storage reservoir or groundwater bank less any consequential hydropower generation.

**Production Volume (AF or selected unit):** Volume of water entering distribution system. If delivery occurs prior to distribution system use volume of water delivered.

**Reporting Period:** One-year (or range up to five years) period for reporting volume of water delivered and quantity of energy consumed. When possible, use time period used to report 2020 data in other sections of UWMP.

**Self-Generated Renewable Energy (kWh):** Amount of renewable energy generated by facilities under urban water supplier's operational control not included in consequential or non-consequential hydropower generation items (examples include solar, wind, geothermal, and tidal).

**Start Date:** First day of one-year reporting period.

**Total Utility Energy Consumed (kWh):** Total energy consumed within an urban water supplier's operational control for all water management processes. [sum (Energy Consumed for all Water Management Processes)]

**Total Utility Energy Intensity (kWh/selected units):** Total utility energy consumed divided by the volume of water entering the distribution system. [Total Utility Energy Consumed / Total Utility Volume of Water Entering Process]

**Treatment (kWh):** Amount of energy consumed within an urban water supplier's operational control to treat water prior to distribution to customers. Treatment of recycled water is not included in this guidance for calculating energy intensity of urban water Supplies.

**Volume Entering Water Management Process (AF or selected unit):** Volume of water that entered given water management process in the Supplier's selected units for 2020 or selected reporting period. Volume of water entered for the "Total Utility" column should equal the amount of water entering the distribution system; in most cases, this is the total volume calculated in UWMP Table 4-1: Demands for Potable and Raw Water in 2020.

**Water Delivery Product:** Describes type of water delivered. Water delivery types include retail potable, retail non-potable, wholesale potable, wholesale non-potable, agricultural, environmental, and other deliveries.

**Water Management Processes:** For the purpose of Appendix O, defined as extract and divert, place into storage, conveyance, treatment, and distribution.

## 0.15 Wastewater Definitions

### Wastewater Collection

Energy Consumed (kWh): Amount of energy consumed within an urban water supplier's operational control to collect and transport wastewater from domestic and industrial sources to a wastewater treatment plant.

Volume (AF): Volume of wastewater entering wastewater treatment plant.

### Wastewater Treatment

Energy Consumed (kWh): Amount of energy consumed within an urban water supplier's operational control to treat wastewater to the level of quality required for discharge to the environment less any consequential energy production.

Volume (AF or select unit): Volume of wastewater entering wastewater treatment plant.

### Wastewater Discharge

Energy Consumed (kWh): Amount of energy consumed within an urban water supplier's operational control to transport treated wastewater from the wastewater treatment plant to the point of discharge.

Volume (Af or select unit): Volume of wastewater exiting wastewater treatment plant that is not used for recycling.

### Wastewater Total

Energy Consumed (kWh): Total energy consumed within an urban water supplier's operational control to collect, treat and discharge wastewater. [sum (Energy Consumed for all Wastewater Management Processes)]

Volume (AF): Volume of wastewater entering wastewater treatment plant.

## O.16 Recycled Water Definitions

### Recycled Water Conveyance

Energy Consumed (kWh): The incremental amount of energy needed to convey wastewater effluent from its point of discharge from a wastewater treatment plant to the recycled water treatment plant.

Volume (AF or other selected unit): Volume of water entering recycled water treatment plant.

### Recycled Water Treatment

Energy Consumed (kWh): The incremental amount of energy needed to treat wastewater effluent to recycled water quality that exceeds the amount of energy that otherwise would have been required to treat the wastewater effluent to a quality acceptable for discharge less any consequential energy production.

Volume (AF or selected unit): Volume of water entering recycled water treatment plant.

### Recycled Water Distribution

Energy Consumed (kWh): Amount of energy expended within an urban water supplier's *operational control* to transport recycled water from the recycled water treatment plant to the point of delivery.

Volume (AF or other selected unit): Volume of water entering recycled water distribution system.

### Recycled Water Total

Energy Consumed (kWh): Total amount of energy consumed within an urban water supplier's operational control to convey, treat and distribute recycled water supplies. [sum (Energy Consumed for all Recycled Water Management Processes)]

Volume (AF or other selected unit): Volume of water entering recycled water distribution system.

## Citations

Wilkinson, Robert C. 2000. "Methodology for Analysis of the Energy Intensity of California's Water Systems, and an Assessment of Multiple Potential Benefits Through Integrated Water-Energy Efficiency Measures."

Exploratory Research Project. Ernest Orlando Lawrence Berkeley Laboratory, California Institute for Energy Efficiency. 89 pp. Viewed online at <http://large.stanford.edu/courses/2012/ph240/sperrin1/docs/wilkinson.pdf>. Accessed Aug. 8, 2020.

### Water Energy Tables

On the following pages are screenshots of tables offered for submitting the energy use information and completing the water energy analysis. Suppliers are required to submit information that is readily obtainable, as described in Water Code Section 10631.2(a). For those without readily obtainable data, Suppliers are encouraged to submit energy use information estimates or judgements for missing information. In addition to the tabular data templates shown below, each table includes additional space for Suppliers to input information about their self-generated renewable energy, quality of data, and other notes about the data submitted. Excel versions of these tables are available online from the WUE Data Portal ([wuewater.water.ca.gov](http://wuewater.water.ca.gov)) under the 'Resources' button of the UWMP section.

**Table O-1A. Recommended Energy Reporting – Water Supply Process Approach**

Table O-1A: Recommended Energy Reporting - Water Supply Process Approach								
Enter Start Date for Reporting Period	10/1/2019	Urban Water Supplier Operational Control						
End Date	9/29/2020	Water Management Process					Non-Consequential Hydropower (if applicable)	
<input type="checkbox"/> s upstream embedded in the values reported?								
Water Volume Units Used	Extract and Divert	Place into Storage	Conveyance	Treatment	Distribution	Total Utility	Hydropower	Net Utility
Volume of Water Entering Process	0	0	0	0	0	0	0	0
Energy Consumed (kWh)	N/A	0	0	0	0	0	0	0
Energy Intensity (kWh/vol.)	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Table O-1B. Recommended Energy Reporting – Total Utility Approach**

Table O-1B: Recommended Energy Reporting - Total Utility Approach				
Enter Start Date for Reporting Period	10/1/2019	Urban Water Supplier Operational Control		
End Date	9/29/2020			
<input type="checkbox"/> Is upstream embedded in the values reported?		Sum of All Water Management Processes	Non-Consequential Hydropower	
<i>Water Volume Units Used</i>	dropdown list	Total Utility	Hydropower	Net Utility
<i>Volume of Water Entering Process (volume unit)</i>		0	0	0
<i>Energy Consumed (kWh)</i>		0	0	0
<i>Energy Intensity (kWh/volume)</i>		0.0	0.0	0.0

**Table O-1C. Recommended Energy Intensity – Multiple Water Delivery Products**

Table O-1C: Recommended Energy Reporting - Multiple Water Delivery Products										
Enter Start Date for Reporting Period	10/1/2019	Urban Water Supplier Operational Control								
End Date	9/29/2020	Water Management Process					Non-Consequential Hydropower (if applicable)			
<input type="checkbox"/> Is upstream embedded in the values reported?		Extract and Divert	Place into Storage	Conveyance	Treatment	Distribution	Total Utility	Hydropower	Net Utility	
<i>Water Volume Units</i>	<i>Total Volume of Water Entering Process (volume units)</i>	0	0	0	0	0	N/A	0	N/A	
dropdown menu	<i>Retail Potable Deliveries (%)</i>	0%	0%	0%	0%	0%		0%		
	<i>Retail Non-Potable Deliveries (%)</i>	0%	0%	0%	0%	0%		0%		
	<i>Wholesale Potable Deliveries (%)</i>	0%	0%	0%	0%	0%		0%		
	<i>Wholesale Non-Potable Deliveries (%)</i>	0%	0%	0%	0%	0%		0%		
	<i>Agricultural Deliveries (%)</i>	0%	0%	0%	0%	0%		0%		
	<i>Environmental Deliveries (%)</i>	0%	0%	0%	0%	0%		0%		
	<i>Other (%)</i>	0%	0%	0%	0%	0%		0%		
	<i>Total Percentage [must equal 100%]</i>	0%	0%	0%	0%	0%	N/A	0%	N/A	
	<i>Energy Consumed (kWh)</i>	0	0	0	0	0	0	0	0	
	<i>Energy Intensity (kWh/volume units)</i>	0.0	0.0	0.0	0.0	0.0	N/A	0.0	N/A	
<i>Water Delivery Type</i>		<i>Production Volume (volume units defined above)</i>	<i>Total Utility (kWh/volume)</i>							<i>Net Utility (kWh/volume)</i>
	<i>Retail Potable Deliveries</i>	0	0.0							0.0
	<i>Retail Non-Potable Deliveries</i>	0	0.0							0.0
	<i>Wholesale Potable Deliveries</i>	0	0.0							0.0
	<i>Wholesale Non-Potable Deliveries</i>	0	0.0							0.0
	<i>Agricultural Deliveries</i>	0	0.0							0.0
	<i>Environmental Deliveries</i>	0	0.0							0.0
	<i>Other</i>	0	0.0							0.0
	<i>All Water Delivery Types</i>	0	0.0							0.0

**Table O-2. Recommended Energy Reporting – Wastewater & Recycled Water**

Table O-2: Recommended Energy Reporting - Wastewater & Recycled Water					
Enter Start Date for Reporting Period <u>10/1/2019</u>		Urban Water Supplier Operational Control			
End Date <u>9/29/2020</u>		Water Management Process			
<input type="checkbox"/> Is upstream embedded in the values reported?		Collection / Conveyance	Treatment	Discharge / Distribution	Total
		<b>Volume of Water Units Used</b>			
<i>Volume of Wastewater Entering Process (volume units selected above)</i>		0	0	0	0
<i>Wastewater Energy Consumed (kWh)</i>		0	0	0	0
<i>Wastewater Energy Intensity (kWh/volume)</i>		0.0	0.0	0.0	0.0
<i>Volume of Recycled Water Entering Process (volume units selected above)</i>		0	0	0	0
<i>Recycled Water Energy Consumed (kWh)</i>		0	0	0	0
<i>Recycled Water Energy Intensity (kWh/volume)</i>		0.0	0.0	0.0	0.0