

**CVAG**

**ENERGY & SUSTAINABILITY COMMITTEE  
AGENDA**

**THURSDAY, MAY 8, 2025  
12:00 p.m.**

**CVAG Conference Room  
73-710 Fred Waring Drive, Suite 104  
Palm Desert, CA 92260**

**Members of the Committee and the public may attend and participate by  
video at the following remote location:**

**Blythe City Hall  
235 N Broadway, Room A  
Blythe, CA 92225**

**Imperial Irrigation District  
1284 Main Street  
El Centro, CA 92243**

Members of the public may use the following link for listening access and ability to address the  
Energy & Sustainability Committee when called upon:

<https://us02web.zoom.us/j/83041337082?pwd=zUpWneH8AsHHQjMRTrNurSdUYFSbin.1>

**Dial In: +1 669 900 9128  
Webinar ID: 830 4133 7082  
Password: 307594**

**IF YOU ARE UNABLE TO CONNECT VIA DIAL IN OPTION, PLEASE CALL 760-346-1127**

Public Comment is encouraged to be emailed to the Energy & Sustainability Committee prior to the meeting at [cvag@cvag.org](mailto:cvag@cvag.org) by 5:00 p.m. on the day prior to the committee meeting. Members of the public joining the meeting by Zoom can also provide comment by using the “raise hand” feature or hitting \*9 on the phone keypad.

As a convenience to the public, CVAG provides a call-in and internet-based option for members of the public to virtually observe and provide public comments at its meetings. Please note that, in the event of a technical issue disrupting the call-in or internet-based options, the meeting will continue unless otherwise required by law.

**THIS MEETING IS HANDICAPPED ACCESSIBLE.  
ACTION MAY RESULT ON ANY ITEMS ON THIS AGENDA.  
UNLESS OTHERWISE STATED, ALL ACTION ITEMS WILL BE PRESENTED TO THE  
EXECUTIVE COMMITTEE FOR FINAL APPROVAL.**

1. **CALL TO ORDER** – Councilmember Oscar Ortiz, City of Indio, Chair

2. **ROLL CALL**

A. Member Roster

P4

3. **PLEDGE OF ALLEGIANCE**

4. **PUBLIC COMMENTS ON AGENDA ITEMS**

This is the first of two opportunities for public comment. Any person wishing to address the Energy & Sustainability Committee on items appearing on this agenda may do so at this time. At the discretion of the Chair, comments may be taken at the time items are presented. Please limit comments to three (3) minutes.

5. **COMMITTEE MEMBER / DIRECTOR COMMENTS**

6. **CONSENT CALENDAR**

A. Approve the minutes from the April 10, 2025, meeting

P5

6.1 **ITEMS HELD OVER FROM THE CONSENT CALENDAR**

7. **DISCUSSION / ACTION**

A. **Presentation: SunLine Transit Agency Zero-Emission Fleet and Infrastructure Projects** – Dioselyn Moreno, SunLine Planning Manager

P8

**Recommendation:** Information

- B. Proposed Updates to Coachella Valley Water District Landscape Ordinance – CVWD Conservation Manager Adam McWey** **P9**

**Recommendation:** Information

- C. CVAG Staffing of the Coachella Valley Power Agency Joint Powers Authority – Emmanuel Martinez** **P76**

**Recommendation:** Conditional on guidance from the Coachella Valley Power Agency (CVPA), authorize the Chair and/or Executive Director to finalize and execute a staffing agreement for CVAG to administer the CVPA

- D. Inland Regional Energy Network’s 2024 Annual Report – Jacob Alvarez** **P82**

**Recommendation:** Information

**8. INFORMATION**

- A. Attendance Record** **P148**

- B. Urban and Community Forestry Program – Shade Trees for Southern California’s Deserts** **P149**

**9. PUBLIC COMMENTS ON NON-AGENDA ITEMS**

This is the second opportunity for public comment. Any person wishing to address the Energy & Sustainability Committee on items of general interest within the purview of this Committee may do so at this time. Please limit comments to two (2) minutes.

**10. ANNOUNCEMENTS**

The next meeting of the **Energy & Sustainability Committee** will be held on Thursday, June 12, 2025, at noon at the CVAG conference room, 73-710 Fred Waring Drive, Suite 104, Palm Desert, 92260.

The next meeting of the **Executive Committee** will be held on Monday, June 2, 2025, at 4:30 p.m. at the CVAG conference room, 73-710 Fred Waring Drive, Suite 104, Palm Desert, 92260.

The next meeting of the **General Assembly** will be held on Monday, June 30, 2025, at 6 p.m. at the Westin Rancho Mirage Golf Resort & Spa, 71333 Dinah Shore Dr, Rancho Mirage, 92270. Additional event information to be announced soon.

**11. ADJOURN**

**ITEM 2A**

**Energy & Sustainability Committee  
Member Roster  
2024 – 2025**



<b>VOTING MEMBERS</b>	
City of Blythe	<b>Mayor Joseph DeConinck</b>
City of Cathedral City	<b>Mayor Nancy Ross</b>
City of Coachella	<b>Councilmember Stephanie Virgen</b>
Coachella Valley Water District	<b>Director Anthony Bianco</b>
City of Desert Hot Springs	<b>Councilmember Dirk Voss</b>
Imperial Irrigation District	<b>Director JB Hamby</b>
City of Indian Wells	<b>Mayor Pro Tem Dana Reed</b>
City of Indio	<b>Councilmember Oscar Ortiz, <i>Chair</i></b>
City of La Quinta	<b>Mayor Linda Evans, <i>Vice Chair</i></b>
Mission Springs Water District	<b>Director Amber Duff</b>
City of Palm Desert	<b>Councilmember Gina Nestande</b>
City of Palm Springs	<b>Mayor Ron deHarte</b>
City of Rancho Mirage	<b>Mayor Ted Weill</b>
Riverside County – District 4	<b>Supervisor V. Manuel Perez</b>
Torres Martinez Desert Cahuilla Indians	<b>Tribal Chairman Joseph Mirelez</b>
<b>Ex-Officio / Non-Voting Members</b>	
Riverside County – District 5	<b>Supervisor Yxstian Gutierrez</b>

**ITEM 6A**

**Energy & Sustainability Committee  
Meeting Minutes  
April 10, 2025**



The audio file for this meeting can be found at: <http://www.cvag.org/audio.htm>

- 1. CALL TO ORDER** – The meeting was called to order by Chair Oscar Ortiz, City of Indio, at 12:11 p.m. at the CVAG Conference Room, 73-710 Fred Waring Drive, Suite 104, in the City of Palm Desert. Zoom videoconferencing was available from the City of Blythe and Imperial Irrigation District’s office in El Centro.
- 2. ROLL CALL** – Roll call was taken and it was determined that a quorum was present.

**Members Present**

Mayor Joseph DeConinck  
Mayor Nancy Ross  
Councilmember Stephanie Virgen  
Councilmember Dirk Voss  
Mayor Pro Tem Dana Reed  
Councilmember Oscar Ortiz, *Chair*  
Mayor Linda Evans, *Vice Chair*  
Director Amber Duff  
Councilmember Gina Nestande  
Mayor Ron deHarte (*left at item 7B*)  
Mayor Ted Weill  
Supervisor V. Manuel Perez (*left at item 7B*)

**Agency**

City of Blythe  
City of Cathedral City  
City of Coachella  
City of Desert Hot Springs  
City of Indian Wells  
City of Indio  
City of La Quinta  
Mission Springs Water District  
City of Palm Desert  
City of Palm Springs  
City of Rancho Mirage  
Riverside County – District 4

**Members/ Ex-Officios Not Present**

Vice Chair Candace Patencio Anderson  
Director Anthony Bianco  
Director JB Hamby  
Tribal Chair Joseph Mirelez

Agua Caliente Band of Cahuilla Indians  
Coachella Valley Water District  
Imperial Irrigation District  
Torres Martinez Desert Cahuilla Indians

**3. PLEDGE OF ALLEGIANCE**

Mayor Linda Evans led the committee in the Pledge of Allegiance.

**4. PUBLIC COMMENTS ON AGENDA ITEMS**

None

**5. COMMITTEE MEMBER / DIRECTOR COMMENTS**

**A. Supervisor V Manuel Perez’s Advocacy on Dust Issues at the South Coast Air Quality Management District’s Leadership Meeting in Palm Desert**

Supervisor V. Manuel Perez commented on the ongoing dust issues in the Coachella Valley and provided an update on the coordination with the South Coast Air Quality Management District, including plans for a dust summit.

Supervisor Perez introduced Sarah Reese, Deputy Executive Officer with SCAQMD, who addressed the Committee regarding air quality issues.

Mayor Evans announced that the Desert Healthcare District/ Foundation will be hosting a health summit in September and encouraged Supervisor Perez and SCAQMD to join the list of presenters.

## **6. CONSENT CALENDAR**

### **A. Approve the minutes from the February 13, 2025, meeting**

**IT WAS MOVED BY MAYOR EVANS AND SECONDED BY MAYOR WEILL TO APPROVE THE CONSENT CALENDAR.**

**THE MOTION CARRIED WITH 12 AYES AND 4 MEMBERS ABSENT FOR THE VOTE.**

<b>Tribal Vice Chair Patencio Anderson</b>	<b>Absent</b>
<b>Mayor DeConinck</b>	<b>Aye</b>
<b>Mayor Ross</b>	<b>Aye</b>
<b>Councilmember Virgen</b>	<b>Aye</b>
<b>Director Bianco</b>	<b>Absent</b>
<b>Councilmember Voss</b>	<b>Aye</b>
<b>Director Hamby</b>	<b>Absent</b>
<b>Mayor Pro Tem Reed</b>	<b>Aye</b>
<b>Councilmember Ortiz</b>	<b>Aye</b>
<b>Mayor Evans</b>	<b>Aye</b>
<b>Director Duff</b>	<b>Aye</b>
<b>Councilmember Nestande</b>	<b>Aye</b>
<b>Mayor deHarte</b>	<b>Aye</b>
<b>Mayor Weill</b>	<b>Aye</b>
<b>Supervisor Perez</b>	<b>Aye</b>
<b>Tribal Chairman Mirelez</b>	<b>Absent</b>

### **6.1 ITEMS HELD OVER FROM THE CONSENT CALENDAR**

None

## **7. DISCUSSION / ACTION**

### **A. Update on Proposed Amendments to South Coast Air Quality Management District's Rules 1111 & 1121 Phasing Out Gas Water Heaters & Furnaces and \$21M Go Zero Pilot Program Supports Residents & Small Businesses Transitioning to Zero-NOx Appliances**

South Coast Air Quality Management District's Planning and Rules Manager Heather Farr joined via Zoom and provided a PowerPoint present to the committee on the 2022 Air Quality Management Plan and proposed amendments to district rules.

Robust member discussion ensued. Committee members identified several key concerns, including the potential for increased financial burdens on low-income households and homeowners (including potential electrical panel upgrade costs), the adequacy of existing electrical infrastructure to support increased demand, and the need for more detailed research and data supporting the claimed health benefits of the proposed rules.

No vote was taken on this item. The consensus among the Energy & Sustainability Committee members was to direct staff to draft a letter of concern that could be signed by the CVAG Chair and the Energy & Sustainability Committee Chair.

**B. I-REN Energy Fellowship Program**

Program Manager Jacob Alvarez presented the staff report and introduced I-REN fellow Geena Vescial, who provided the Committee with an overview and projects worked on during her time with CVAG.

No action was taken as this was an informational item.

**8. INFORMATION** – The following items were provided in the agenda for information only:

**A. Attendance Record**

**B. I-REN Business Plan Update**

**9. PUBLIC COMMENTS ON NON-AGENDA ITEMS**

None

**10. ANNOUNCEMENTS**

The next meeting of the **Energy & Sustainability Committee** will be held on Thursday, May 8, 2025, at noon at the CVAG conference room, 73-710 Fred Waring Drive, Suite 104, Palm Desert, 92260.

The next meeting of the **Executive Committee** will be held on Monday, April 28, 2025, at 4:30 p.m. at the CVAG conference room, 73-710 Fred Waring Drive, Suite 104, Palm Desert, 92260.

**11. ADJOURN** – Chair Ortiz adjourned the meeting at 1:19 p.m.

Respectfully submitted,  
*Elysia Regalado, Management Analyst*

**ITEM 7A**

**Coachella Valley Association of Governments  
Energy & Sustainability Committee  
May 8, 2025**



**STAFF REPORT**

**Subject:** Presentation: SunLine Transit Agency Zero-Emission Fleet and Infrastructure Projects

**Contact:** Lisa McNeilly, Director of Energy and Sustainability ([lmcneilly@cvag.org](mailto:lmcneilly@cvag.org))

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**Recommendation: Information**

**Background:** Members of CVAG's Energy & Sustainability Committee expressed interest in SunLine Transit Agency's continued efforts to reduce emissions. Dioselyn Moreno, SunLine's Planning Manager, will attend the May meeting to update the Committee on SunLine's current and planned efforts in advancing zero-emission transportation and renewable energy integration. The presentation will highlight the ongoing transition to zero-emission fuels, including vehicle procurement, the integration of solar power technology and future fleet plans. SunLine staff will also share information about their new maintenance facility designed specifically to support these emerging technologies and a preview of their workforce training center. SunLine's current infrastructure includes solar arrays, electric vehicle charging, and a liquid hydrogen station, which will soon include a public-facing dispenser.

SunLine provides public transit services in the Coachella Valley, with a service area covering 1,120 square miles. SunLine's service includes 15 local bus routes, a bus circulator loop, commuter/express buses, microtransit and paratransit buses. The agency has been a pioneer in zero-emission transportation. It first adopted an alternative fuel policy in 1993 and was the first transit agency in the state to convert all buses to compressed natural gas. SunLine has a goal for converting its entire fleet to zero-emissions buses.

**Fiscal Analysis:** There is no cost to CVAG for this informational report.

## **ITEM 7B**

**Coachella Valley Association of Governments  
Energy & Sustainability Committee  
May 8, 2025**



### **STAFF REPORT**

**Subject:** Proposed Updates to Coachella Valley Water District Landscape Ordinance

**Contact:** Lisa McNeilly, Director of Energy and Sustainability ([lmcneilly@cvag.org](mailto:lmcneilly@cvag.org))

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### **Recommendation: Information**

**Background:** The Coachella Valley Water District (CVWD) maintains a landscape ordinance to promote landscaping practices that support conservation and efficient use of water as well as to implement requirements of the Model Water Efficient Landscape Ordinance (MWELO). MWELO is part of Title 24, Part 11, Chapters 4 and 5 of the CalGreen Building Code and is set to be updated triennially. In 2023, Gov. Gavin Newsom signed AB 1572 into law, which prohibits public agencies, restaurants, corporate campuses, industrial parks, and certain other property owners from irrigating “non-functional turf” using potable water. This prohibition is being phased in, with the first implementation being effective January 1, 2027 for properties owned by local government agencies. It should be noted that there are no restrictions on residential properties, parks, or sports fields (among other exemptions), and irrigation would still be allowed to preserve the health of trees and other perennials.

Since July 2024, CVWD has been working to update its landscaping ordinance, as a result of AB 1572 and recently adopted amendments to the MWELO regulations that took effect this year. This has resulted in an updated CVWD ordinance that includes new definitions, reporting requirements, and other provisions. Notably, the changes also referred to non-functional turf and would prohibit irrigation of non-functional turf for new or rehabilitated landscapes (as required by AB 1572). The amendments also include a Recycled Water Checklist and certain water waste prevention measures.

CVWD has conducted community outreach, including a workshop for local city and water agency employees, and has received a letter of support from the Desert Valleys Builders Association (DVBA). CVWD staff is now seeking additional input from CVAG prior to taking it to their own Board of Directors. Conservation Manager Adam McWey will provide an update on these efforts when CVAG’s Energy & Sustainability Committee meets in May. If the proposed ordinance is adopted by the CVWD Board, it would go into effect in July 2026, to allow a full year of implementation prior to the AB 1572 effective date to allow developers and others to become familiar with the ordinance and anticipate its impacts on upcoming projects.

CVAG has a long history of providing a regional approach to landscaping ordinances, including coordinating with the College of the Desert on certification classes that train landscapers in water conservation and overseeding. In 2009 and 2015, CVAG facilitated a Regional Coachella Valley Model Water Efficient Landscape Ordinance with member jurisdictions and local water agencies in response to the initial Model Water Efficient Landscape Ordinance (approved October 26, 2009 and July 15, 2015). The state requirements specify that counties and cities are required to update their local model Water Efficient Landscape Ordinance to be at least as effective in conserving water as the updated state model ordinance. If a local agency does not adopt such an ordinance, the agency is subject to the State’s model ordinance by statute.

CVAG staff will continue to work with CVWD as they finalize and implement their revised ordinance. Staff will also reach out to other water agencies and member jurisdictions to share information about the changes in the state requirements and, if necessary, help broaden this effort and develop a model ordinance that can be used in other parts of the Coachella Valley that are beyond CVWD's territory. Any such ordinance would come back to the Energy & Sustainability and Executive Committees at a future date.

**Fiscal Analysis:** There is no cost to CVAG for this item. Any costs associated with future work would be covered under existing staff time.

**Attachments:**

1. Summary of Changes (CVWD Ordinance 1302.6)
2. Proposed CVWD ordinance

Ordinance 1302.5 States	Proposed Revision
<b>Section 0.00.010 Purpose and Intent Section C</b>	
C. It is also the purpose of these criteria to implement the requirements of the California Code of Regulations Title 23. Waters Division 2. Department of Water Resources Chapter 2.7. Model Water Efficient Landscape Ordinance, and State of California Water Conservation in Landscaping Act. Authority cited: Section 65593 Government Code, Reference: Sections 65591, 65593, 65596 Government Code.	C. It is also the purpose of these criteria to implement the requirements of the California Code of Regulations Title 23. Waters Division 2. Department of Water Resources Chapter 2.7. Model Water Efficient Landscape Ordinance, and State of California Water Conservation in Landscaping Act. Authority cited: Section 65596 and 65596.5, Government Code, Reference: Sections 65593, 65596 and 65596.5 Government Code.
<b>Section 0.00.020 Definitions</b>	
AUTOMATIC CONTROLLER - An electronic or solid-state timer capable of operating valve stations to set the days, time and length of time of a water application.	AUTOMATIC IRRIGATION CONTROLLER - An electronic or solid-state timer capable of operating valves that operate an irrigation system. For the purposes of this ordinance, automatic irrigation controllers are able to self-adjust and schedule irrigation events using either evapotranspiration (weather-based) or soil moisture (sensor-based) data.
DRIP IRRIGATION - A method of irrigation where the water is applied slowly at the base of plants without watering the open space between plants.	DRIP IRRIGATION - A non-spray low volume irrigation system utilizing emission devices where water is slowly applied at or below the soil surface and at or near the root zone of plants. Drip irrigation emission devices have a manufacturer specification for flow rate measured in gallons per hour.
	DUAL PLUMBED or DUAL PLUMBED SYSTEM – a system that utilizes separate piping systems for recycled water and potable water on a property where the recycled water is used for outdoor landscape irrigation at individual residences. The district does not permit the use of nonpotable water to serve plumbing outlets within a building.
ELECTRONIC CONTROLLERS – Time clocks that have capabilities of multiprogramming, water budgeting and multiple start times.	Deleted
ESTABLISHED LANDSCAPE - The point at which new plants in the landscape have developed roots into the soil.	ESTABLISHED LANDSCAPE – The stage at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.
ESTABLISHMENT PERIOD - The first year after installing the plant in the landscape.	ESTABLISHMENT PERIOD - The first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth. Native habitat mitigation areas and trees may need three to five years of establishment.

<p>ESTIMATED TOTAL WATER USE (By hydrozone) - The portion of the estimated annual total applied water use that is derived from applied water to a specified hydrozone.</p>	<p>ESTIMATED WATER USE (By hydrozone) - The portion of the estimated annual total applied water use that is derived from applied water to a specified hydrozone.</p>
<p>ESTIMATED ANNUAL TOTAL APPLIED WATER USE (Total of all hydrozones) - The annual total amount of water estimated to be needed by all hydrozones to keep the plants and water features in the landscaped area healthy and visually pleasing. It is based upon such factors as the local evapotranspiration rate, the size of the landscaped area, the size and type of water feature, the types of plants, and the efficiency of the irrigation system. The estimated annual total applied water use shall not exceed the Maximum Applied Water Allowance (MAWA).</p>	<p>ESTIMATED TOTAL WATER USE (Total of all hydrozones) - The annual total amount of water estimated to be needed by all hydrozones to keep the plants and water features in the landscaped area healthy and visually pleasing. It is based upon such factors as the local evapotranspiration rate, the size of the landscaped area, the size and type of water feature, the types of plants, and the efficiency of the irrigation system. The estimated total water use must be equal to or below the Maximum Applied Water Allowance (MAWA).</p>
<p>ET ADJUSTMENT FACTOR - A factor of 0.45 that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.</p>	<p>ET ADJUSTMENT FACTOR - A factor that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. The maximum ETAF allowed in the MAWA equation will be .45 for regular landscape areas and 1.0 for Special Landscape Areas. The ETAF for existing landscapes that were installed before January 1, 2010 and are over one (1) acre in size shall be .70 per section 00.00.040.</p>
<p>FLOW RATE - The rate at which water flows through pipes, valves and meters (gallons per minute or cubic feet per second).</p>	<p>FLOW RATE - The rate at which water flows through pipes, valves and meters (gallons per minute, gallons per hour or cubic feet per second).</p>
	<p>FLOW SENSOR – An inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to flow rate. Flow sensors must be connected to a compatible automatic irrigation controller, or flow monitor capable of receiving flow signals and operating master valves. For the purposes of this definition, “compatible” means the flow sensor can communicate with the irrigation controller to allow the controller to record and report actual water usage. This combination flow sensor/controller may also function as a privately-owned submeter.</p>
	<p>FUNCTIONAL TURF – A ground cover surface of turf located in a recreational use area or community space. Turf enclosed by fencing or other barriers to permanently preclude human access for recreation or assembly is not functional turf.</p>

<p>IRRIGATION EFFICIENCY - The measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum irrigation efficiency for purposes of these regulations is 0.75 or 75 percent and .90 or 90 percent for drip systems.</p>	<p>IRRIGATION EFFICIENCY - The measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum irrigation efficiency for purposes of these regulations is 0.75 or 75 percent for overhead spray irrigation, .80 or 80 percent for overhead rotor irrigation and .90 or 90 percent for drip systems.</p>
	<p>IRRIGATION WATER USE ANALYSIS – An analysis of water use data based on meter readings and billing data.</p>
<p>LANDSCAPE IRRIGATION AUDIT - A process to perform site inspections, evaluate irrigation systems and develop efficient irrigation schedules.</p>	<p>LANDSCAPE IRRIGATION AUDIT - An in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting water waste, overspray or runoff that causes overland flow, and preparation of an irrigation schedule.</p>
<p>LANDSCAPED AREA - The planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance Calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation)</p>	<p>LANDSCAPED AREA - All the irrigated planting areas, turfgrass areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The irrigated planting area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation). The landscape area is the sum of the landscape projects' regular landscape areas (RLA) and special landscape areas (SLA). LA = RLA + SLA.</p>
<p>LATERAL LINE - The water delivery pipeline that supplies water to the emitters sprinklers from a valve.</p>	<p>LATERAL LINE - The water delivery pipeline that supplies water from the valve to the emission devices.</p>
<p>LOCAL AGENCY – A city, county, or water purveyor responsible for adopting and implementing the ordinance. The local agency is also responsible for enforcement of the ordinance, including, but not limited to, approval of a design review, permit, plan check, or inspection of a project.</p>	<p>LOCAL AGENCY – A city or county responsible for adopting and implementing the ordinance. The local agency is also responsible for enforcement of the ordinance.</p>
	<p>LOW HEAD DRAINAGE – A condition where water partially or completely drains from the lateral line through the emission device after the irrigation cycle is completed.</p>

	<p>MASTER SHUT-OFF VALVE – An automatic valve installed at the irrigation supply point which controls water flow into the irrigation system. When this valve is closed water will not be supplied to the irrigation system. A master shut-off valve will greatly reduce any water loss due to a ruptured pipe or leak in the irrigation system.</p>
	<p>MATCHED PRECIPITATION RATE – Means that all emission devices within a hydrozone deliver water at a similar precipitation rate per unit of time.</p>
<p>MAXIMUM APPLIED WATER ALLOWANCE (MAWA) - For design purposes, the upper limit of annual applied water for the established landscape area as specified in Division 2, Title 23, California Code of Regulations, Chapter 7, Section 492.4. It is based upon the area's reference evapotranspiration, ET adjustment factor, and the size of the landscaped area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, include recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with recycled water are subject to the MAWA with an ETAF not to exceed 1. MAWA = (ETo)(0.62)[(ETAF x LA) +((1-ETAF) X SLA)].</p>	<p>MAXIMUM APPLIED WATER ALLOWANCE (MAWA) - For design purposes, the upper limit of annual applied water for the established landscape area. It is based upon the area's reference evapotranspiration, ET adjustment factor, and the size of the regular landscape area (RLA) and the special landscape area (SLA).  MAWA = (ETo)(0.62)[ETAF x RLA+ 1 X SLA].</p>
	<p>MEDIAN – A landscape project area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.</p>
<p>MULCH – Any organic materials such as leaves, bark, straw or inorganic material such as pebbles, stones, gravel, decorative sand or decomposed granite left loose and applied to the soil surface to reduce evaporation.</p>	<p>MULCH - Any organic materials such as leaves, bark, straw or compost, applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion. Mulch includes inorganic mineral materials such as rocks, gravel, or decomposed granite left loose.</p>
	<p>MULTIFAMILY RESIDENTIAL LANDSCAPE – the landscape area surrounding or associated with any structure designed for human habitation that has been divided into two or more legally created independent living quarters.</p>
	<p>NEW CONSTRUCTION – for the purpose of this ordinance, a new building with a landscape area or other new landscape project, such as a park, playground, or greenbelt without an associated building.</p>
	<p>NONFUNCTIONAL TURF – Any turf that is solely ornamental and not functional turf, and includes turf located within street rights-of-way and parking lots. Non-functional turf does not include sports fields, golf courses, parks, cemeteries and mortuaries, pet relief turf, turf that is regularly used for human recreational purposes or for civic and community events.</p>

	NON-RESIDENTIAL LANDSCAPE – the landscape area surrounding or associated with commercial, institutional, industrial and public settings that may have areas designated for recreation or public assembly. It also includes the landscape area associated with common areas of common interest developments with designated recreational areas.
OPERATING PRESSURE - The pressure at which an irrigation system’s sprinklers, bubblers, drippers or microsprays are designed to operate, usually indicated at the base of an irrigation head.	OPERATING PRESSURE – The pressure at which an irrigation system’s sprinklers, bubblers, drippers or microsprays are designed by the manufacturer to operate, usually indicated at the base of an irrigation head.
OVERHEAD SPRINKLER IRRIGATION STATIONS – Sprinklers with high flow rates (spray heads, impulse sprinklers, gear rotors, etc.) that are utilized to apply water through the air to large irrigated areas.	OVERHEAD IRRIGATION SYSTEMS -Irrigation systems that deliver water through the air.
OVERSPRAY - The water which is delivered beyond the landscaped area onto pavements, walks, structures or other non-landscape areas. Also known as hardscape applications	OVERSPRAY - Irrigation water which is delivered beyond the target area.
	PARKWAY – The area between a sidewalk and the curb or traffic lane. It may be planted or unplanted, and with or without pedestrian access.
	PERMIT – An authorizing document issued by local agencies for new construction or rehabilitated landscapes.
	PERVIOUS – Any surface or material that allows the passage of water through the material and into the underlying soil.
PLANT FACTOR - A factor that, when multiplied by reference evapotranspiration, estimates the amount of water used by plants. For purposes of these criteria, the average plant factor of very low water using plants ranges from 0.01 to 0.10, for low water using plants the range is 0.10 to 0.30, for moderate water using plants the range is 0.40 to 0.60, and for high water using plants, the range is 0.70 to 0.90. Reference: Water Use Classifications of Landscape Species IV (WUCOLS IV).	PLANT FACTOR - A factor that, when multiplied by evapotranspiration, estimates the amount of water used by plants. For purposes of these criteria, the average plant factor of very low water using plants ranges from 0.01 to 0.10, for low water using plants the range is 0.10 to 0.30, for moderate water using plants the range is 0.40 to 0.60, and for high water using plants, the range is 0.70 to 0.90. Plant factors cited in this ordinance are derived from the database “Water Use Classification of Landscape Species” (WUCOLS).
QUALIFIED PROFESSIONAL – A person who has been certified by their professional organization or a person who has demonstrated knowledge and is locally recognized as qualified among landscape architects due to longtime experience.	Deleted

<p>RECREATIONAL AREA - Areas, excluding private single family residential lots, designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheaters or golf course tees, fairways, roughs, surrounds and greens.</p>	<p>RECREATIONAL AREA - Areas, designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheaters or golf course tees, fairways, roughs, surrounds and greens. Private single-family residential landscapes are not recreational areas.</p>
<p>RECYCLED WATER/RECLAIMED WATER – Treated or recycled wastewater of a quality suitable for nonpotable uses such as landscape irrigation. Recycled water is not for human consumption.</p>	<p>RECYCLED WATER- Treated wastewater of a quality suitable for nonpotable uses such as golf course, landscape and agricultural irrigation as described in California Code of Regulations, Title 22, Division 4, Chapter 3. Recycled water is not intended for human consumption.</p>
<p>REFERENCE EVAPOTRANSPIRATION or ETo - A standard measurement of the environmental parameters which affect the water use of plants, using cool season grass as a reference. ETo is expressed in inches per day, month or year and is an estimate of the evapotranspiration of a large field of cool-season grass that is well watered. Reference evapotranspiration is used as a basis of determining the Maximum Applied Water Allowances so that regional differences in climate can be accommodated. For purposes of these criteria, CVWD Drawing No. 29523 will be used for ETo zones.</p>	<p>REFERENCE EVAPOTRANSPIRATION or ETo - A standard measurement of the environmental parameters which affect the water use of plants, using cool season grass as a reference. ETo is expressed in inches per day, month or year and is an estimate of the evapotranspiration of a large field of cool-season grass that is well watered. The annual reference evapotranspiration is used as a basis of determining the Maximum Applied Water Allowances so that regional differences in climate can be accommodated. For purposes of these criteria, CVWD Drawing No. 29523 will be used for ETo zones.</p>
<p>RUNOFF - Irrigation water which is not absorbed by the soil or landscape to which it is applied and which flows from the planted area</p>	<p>RUNOFF - Irrigation water which is not absorbed by the soil or landscape to which it is applied and flows from the target landscape area. Runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate), from low head drainage, or when there is a slope.</p>
	<p>SINGLE-FAMILY RESIDENTIAL LANDSCAPE – The landscape areas surrounding or associated with a one or two-family dwelling or townhouse. Swimming pools of single-family residential landscapes are water features and not special landscape areas.</p>
<p>SMART CONTROLLER – Weather-based or soil moisture-based irrigation controls that monitor and use information about environmental conditions for a specific location and landscape (such as soil moisture, rain, wind, the plants’ evaporation and transpiration rates and, in some cases, plant type and more) to automatically control when to water and when not to, providing exactly the right amount of water to maintain lush, healthy growing conditions.</p>	<p>Deleted – Updated Automatic Irrigation controller definition</p>
<p>SOIL MOISTURE-SENSING DEVICE - A device that measures the amount of water in the soil.</p>	<p>SOIL MOISTURE-SENSING DEVICE - A device that measures the amount of water in the soil and sends a signal to the automatic irrigation controller to interrupt or initiate an irrigation event.</p>

<p>SPECIAL LANDSCAPE AREA (SLA) – An area of the landscape dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, water features using recycled water or water features using non-potable canal water created solely to act as an irrigation reservoir.</p>	<p>SPECIAL LANDSCAPE AREA (SLA) – An irrigated area that may be all or part of the landscape project and is permanently and solely dedicated to edible plants such as orchards and vegetable gardens, recreational areas, areas irrigated with recycled water, water features using recycled water or non-potable canal water created solely to act as an irrigation reservoir.</p>
<p>SPRINKLER HEAD – A device which sprays water through a nozzle.</p>	<p>SPRINKLER HEAD - An emission device that applies water by converting water pressure to a high velocity discharge stream or stream(s) through the air by a nozzle (e.g. spray, rotors, and rotators). Sprinklers have a manufacturer specification for flow rate measured in gallons per minute.</p>
<p>STATION - An area served by one valve or by a set of valves that operate simultaneously</p>	<p>STATION - A hydrozone served by a circuit on an automatic irrigation controller that operates either one valve or a set of valves that operate simultaneously.</p>
	<p>SUBMETER – A privately owned metering device to measure water applied to the landscape that is installed after the primary utility water meter.</p>
<p>TURF - A surface of earth containing mowed grass with roots.</p>	<p>TURFGRASS - A living ground cover surface of mowed grass.</p>
	<p>WATER BUDGET CALCULATION – The calculation of a landscape water budget defined by Estimated Total Water Use (ETWU) and Maximum Applied Water Allowance (MAWA).</p>
<p>WATER FEATURE - Any water applied to the landscape for nonirrigation, decorative purposes. Fountains, streams, ponds and lakes are considered water features. Water features use more water than efficiently irrigated turf grass and are assigned a plant factor of 1.1 for a stationary body of water and 1.2 for a moving body of water.</p>	<p>WATER FEATURE - A design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of water features is included in the high-water use hydrozone on the landscape area. Water features use more water than efficiently irrigated turf grass and are assigned a plant factor of 1.1 for a stationary body of water and 1.2 for a moving body of water. Constructed wetlands used for on-site wastewater treatment or stormwater best management practices that are not irrigated and used solely for water treatment or stormwater retention are not water features and, therefore, are not subject to the water budget calculation.</p>
<p>WATER SYSTEM – The network of piping, valves and irrigation heads.</p>	<p>Deleted</p>

	<p>WATER WASTE – The overapplication of water through inefficient landscape irrigation that causes runoff to leave the target landscape area onto adjacent property, non-irrigated landscapes, private and public walkways, roadways, parking lots, or structures. Water waste includes low head drainage, overspray, runoff, or other similar conditions that cause overland flow.</p>
<p>WUCOLS IV - Water Use Classifications of Landscape Species IV</p>	<p>WUCOLS – means the Water Use Classification of Landscape Species maintained by the California Center for Urban Horticulture, University of California. WUCOLS is an online database that classifies and provides regional water needs for commonly available landscape plants.</p>
<p><b>Section: 0.00.030 Provisions for new or rehabilitated landscapes, A. 1.(a)</b></p>	
<p>Submit two <u>copies</u> of a Landscape Documentation Package to the Coachella Valley Water District (District) that conform to this chapter. No water meter will be issued until the District reviews and approves the Landscape Documentation Package.</p>	<p>Submit <u>one</u> copy of a Landscape Documentation Package to the Coachella Valley Water District (District) that conforms to this chapter. No water meter will be issued until the District reviews and approves the Landscape Documentation Package.</p>
<p><b>Section: 0.00.030 Provisions for new or rehabilitated landscapes, A. 3.</b></p>	
<p>3. Upon approval of the Landscape Documentation Package, the District will:</p> <p>a. Sign and date the approved plans and return them to the project applicant.</p> <p>b. Submit a copy of the project’s Water Efficient Landscape Worksheet (Appendix B) to the local agency.</p>	<p>3. Upon approval of the Landscape Documentation Package, the District will:</p> <p>a. Sign and date the approved plans and return them to the project applicant.</p>
<p><b>Section: 0.00.030 Provisions for new or rehabilitated landscapes, A. 4.</b></p>	
<p>4. Upon approval of the Landscape Documentation Package by the local agency, the project applicant shall:</p> <p>a. Receive an approval of the landscape design review or plan check.</p> <p>b. Finalize the Certificate of Completion, including recording the date of the approval.</p> <p>c. File the Certificate of Completion with the District and the local agency, and provide a copy to the property owner or designee.</p> <p>d. Submit a copy of the approved Landscape Documentation Package, along with the record drawings and any other information, to the property owner or designee.</p>	<p>4. Upon approval of the Landscape Documentation Package by the local agency, the project applicant shall:</p> <p>a. Receive an approval of the landscape design review or plan check.</p> <p>b. Record the date of approval in the Certificate of Completion.</p> <p>c. Submit a copy of the approved Landscape Documentation Package, along with the record drawings and any other information, to the property owner or designee.</p>

**Section: 0.00.030 Provisions for new or rehabilitated landscapes, A. 5 (d)**

d. Water Efficient Landscape Worksheet (Appendix B), which may be imbedded in the plan sheets of the Landscape Documentation Package, and include the following:

i. Hydrozone Information Table (reference Appendix C)

d. Water Efficient Landscape Worksheet (Appendix B), which shall be imbedded in the plan sheets of the Landscape Documentation Package, and include the following:

i. Hydrozone Information Table (reference Appendix B, Section A)

**Section: 0.00.030 Provisions for new or rehabilitated landscapes, A. 6 (a) and (b)**

a. The applicant or applicant's representative may bring, send or ship copies of the Landscape Documentation Package to the District, and the local agency, as applicable. Appropriate fees must accompany the Landscape Documentation Package.

b. The plans will normally be returned to the applicant or local agency with comments by the District (Water Management Department) within ten working days of receipt.

a. The applicant or applicant's representative will email or upload a digital copy of the Landscape Documentation Package to the District, and the local agency, as applicable.

b. The plans will normally be returned to the applicant with comments by the District (Water Management Department) within ten working days of receipt.

**Section: 0.00.030 Provisions for new or rehabilitated landscapes, A. 6 (d)**

d. Signed plans will be held at the District's Palm Desert office for applicant pick up or sent by certified shipping at the applicant's request and expense.

d. Digital copies of the signed plans will be held by the District and be returned to the applicant upon payment of all applicable plan check fees.

**Section: 0.00.030 Provisions for new or rehabilitated landscapes, A. 6 (e)**

e. For direct communication:  
Telephone No.: (760) 398-2651 Water Management Department

Mailing Address:  
Coachella Valley Water District  
Attention: Water Management Department  
Post Office Box 1058  
Coachella, California 92236

Hand Delivery or  
Shipping Address:  
Coachella Valley Water District  
Attention: Water Management Department  
85-995 Avenue 52  
Coachella, California 92236

Hand Delivery or

e. For direct communication:  
Telephone No.: (760) 398-2651 Water Management Department

E-mail Address: [LandscapePlanning@cvwd.org](mailto:LandscapePlanning@cvwd.org)

Mailing Address:  
Coachella Valley Water District  
Attention: Water Management Department  
Post Office Box 1058  
Coachella, California 92236

Hand Delivery or  
Shipping Address:  
Coachella Valley Water District  
Attention: Water Management Department  
85-995 Avenue 52  
Coachella, California 92236

<p>Shipping Address: Coachella Valley Water District Attention: Water Management Department 75-525 Hovley Lane East Palm Desert, California 92211</p>	<p>Hand Delivery or Shipping Address: Coachella Valley Water District Attention: Water Management Department 75-525 Hovley Lane East Palm Desert, California 92211</p>
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**Section: 0.00.030 Provisions for new or rehabilitated landscapes, A. 7**

<p>7. Upon review and approval of the Landscape Documentation Package by the District, the project applicant shall:</p> <p>a. Submit a copy of the District approved Landscape Documentation Package and Water Efficient Landscape Worksheet to the local agency.</p> <p>b. Provide the property owner or site manager a copy of the District approved Landscape Documentation Package, in addition to the record drawings and any other information normally forwarded to the property owner or site manager.</p>	<p>7. Upon construction of the project the applicant or representative shall:</p> <p>a. Complete all components of the Certificate of Completion.</p> <p>b. Provide the Certificate of Completion to the District and Local Agency.</p>
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**Section: 0.00.030 Provisions for new or rehabilitated landscapes, A. 8.**

<p>8. Upon review and approval of the Landscape Documentation Package by the local agency, the project applicant shall:</p> <p>a. Record the date of the permit on the Certificate of Completion.</p> <p>b. Provide the property owner or designee a copy of the local agency approved Landscape Documentation Package, in addition to the record drawings, and any other information normally forwarded to the property owner or designee.</p>	<p>Deleted this Section Added terms to A.7</p>
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**Section: 0.00.030 Provisions for new or rehabilitated landscapes, B. 2 (v)**

<p>v. Designate recreational areas and recreational turf areas.</p>	<p>v. Identify special landscape areas, including (A) recreational areas; (b) areas permanently and solely dedicated to edible plants; (c) areas irrigated with or water features using recycled water; (d) water features using non-potable canal water created solely to act as an irrigation reservoir.</p>
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**Section: 0.00.030 Provisions for new or rehabilitated landscapes, B. 3 (f)**

The irrigation of nonfunctional turf located on commercial, industrial, and institutional properties, other than a cemetery, and on properties of homeowners' associations, common interest developments, and community service organizations or similar entities is prohibited.

**Section: 0.00.030 Provisions for new or rehabilitated landscapes, B. 3 (m)**

m. High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians.

m. High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians and parkways.

**Section: 0.00.030 Provisions for new or rehabilitated landscapes, B. 3 (r)**

r. The architectural guidelines of a common interest development, which includes community apartment projects, condominiums, planned developments and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group. (California Civil Code, Section 1353.8).

r. The architectural guidelines of a common interest development, which includes community apartment projects, condominiums, planned developments and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group.

**Section: 0.00.030 Provisions for new or rehabilitated landscapes, D**

For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufactures recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the following criteria shall be submitted as part of the Landscape Documentation Package.

For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturer's recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the following criteria shall be submitted as part of the Landscape Documentation Package.

**Section: 0.00.030 Provisions for new or rehabilitated landscapes, D, 1, s**

s. High flow sensors that detect high flow conditions created by system damage or malfunction shall be specified for all projects where a dedicated landscape irrigation meter is required.

s. Flow sensors that detect and report high flow conditions created by system damage or malfunction are required for all non-residential projects and residential landscapes over 5,000 square feet.

**Section: 0.00.030 Provisions for new or rehabilitated landscapes, D, 5, (a)(b)(c)(d)(e)**

**5. Recycled Water Specifications**

a. When a site has recycled water available or is in an area that will have recycled water available as irrigation water, the irrigation system shall be installed using the industry standard purple colored or marked "Recycled Water Do Not Drink" on pipes, valves and sprinkler heads.  
b. The backup groundwater supply (well or domestic

**5. Recycled Water Specifications**

a. Customers interested in the use of nonpotable water including recycled water shall contact CVWD to determine feasibility of the connection. Upon approved feasibility determination, the customer will submit a letter of intent to CVWD. The customer will enter into a Nonpotable Water Agreement and obtain a Recycled

<p>water) shall be metered. Backup supply water is only for emergencies when recycled water is not available.</p> <p>c. Recycled water users must comply with all county, state and federal health regulations. Cross connection control shall require a 6-inch air gap system or a reduced pressure backflow device. All retrofitted systems shall be dye tested before being put into service.</p> <p>d. Where available, recycled water shall be used as a source for decorative water features.</p> <p>e. Sites using recycled water are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits or the provisions of these criteria.</p>	<p>Water Use Permit pursuant to CVWD 3.35.120. A recycled water use permit or Nonpotable Water Agreement does not authorize violations of any local, state, or federal law or regulation. Every customer has an independent obligation to comply with all applicable local, state, and federal laws and regulations.</p> <p>b. Customers approved for recycled water use must comply with Chapter 3.35 of the District’s Code.</p> <p>c. Nonpotable Water is considered an interruptible supply of water. Nonpotable Water customers must have a backup water supply that is in “ready” status and is capable of working in tandem with the nonpotable water being supplied by CVWD. The backup water supply is typically groundwater produced by a privately owned well or produced as a domestic water supply by a well owned by CVWD. The backup water supply shall be metered.</p> <p>d. Sites using recycled water are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits or the provisions of these design criteria.</p> <p>f. A Recycled Water Checklist is included in Appendix G.</p>
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**Section: 0.00.030 Provisions for new or rehabilitated landscapes, D, 6(b)**

<p>b. Sites using nonpotable irrigation water are not exempted from the Maximum Applied Water Allowance (MAWA, prescribed water audits or the provisions of these criteria.</p>	<p>b. Sites using nonpotable irrigation water are not exempted from the Maximum Applied Water Allowance (MAWA, prescribed water audits or the provisions of these design criteria.</p>
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**Section: 0.00.030 Provisions for new or rehabilitated landscapes, D, 7(a)**

<p>a. Sites using groundwater irrigation water from wells are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits, or the provisions of these criteria.</p>	<p>a. Sites using groundwater irrigation water from wells are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits, or the provisions of these design criteria.</p>
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**Section: 0.00.030 Provisions for new or rehabilitated landscapes, D, 8(b)**

<p>b. All nonturf areas such as ponds, lakes, artificial water courses, bunkers, and irrigated landscapes within the golf course project area must not exceed the Maximum Applied Water Allowance (MAWA) calculations set forth within these criteria.</p>	<p>b. All nonturf areas such as ponds, lakes, artificial water courses, bunkers, and irrigated landscapes within the golf course project area must not exceed the Maximum Applied Water Allowance (MAWA) calculations set forth within these design criteria.</p>
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**Section: 0.00.040 Other Provisions C. Water Waste Prevention**

1. Water Waste Prevention. Water waste resulting from inefficient landscape irrigation including run-off, low-head drainage, overspray, or other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways, or structures is prohibited. All broken heads and pipes must be repaired within 72 hours of notification.

- a. Penalties for violation of these prohibitions are established in Section 0.00.070.

1. Water Waste Prevention. To prevent the unreasonable use of water and to promote water conservation, the use of water is prohibited as identified herein. The following prohibitions shall be in effect, except where necessary to address an immediate health, safety and sanitation need or to comply with a term or condition of a permit issued by a state or federal agency:

- a. Spray irrigation of landscapes during and within 48 hours after measurable rainfall of 0.10 inches.
- b. Irrigation of landscapes outside of newly constructed homes and buildings (since landscape ordinance originally adopted) in a manner inconsistent with regulations or other requirements established in this ordinance or the California Department of Housing and Community Development Building standards.
- c. Broken sprinklers shall be repaired as soon as practicable. If notified of a broken sprinkler by CVWD, then the repair shall be made within 5 business days of said notice.
- d. Applying any water to outdoor landscapes in a manner that causes runoff such that water flows, or over sprays, onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures.
- e. Using a hose to wash a vehicle, windows, solar panels, or tennis courts, unless an automatic shut-off nozzle or pressure washer is used.
- f. Applying water to any hard surface including, but not limited to driveways, sidewalks, concrete, and asphalt is prohibited unless to address immediate health and safety needs. Reasonable pressure washer or water broom use is permitted.
- g. Homeowner's Associations, community service organizations or similar entities are prohibited from enforcing provisions of their rules and regulations that prohibit reducing or eliminating the watering of vegetation or lawns during a declared drought emergency.
- h. Using any water in a fountain or other decorative water feature is prohibited, unless the water recirculates.
- i. Penalties for violation of these prohibitions are established in Section 0.00.080.

<b>Section: 0.00.040 Other Provisions G.</b>	
G. Certificate of Completion	G. Certificate of Completion Package
<b>Section: 0.00.040 Other Provisions G. Certificate of Completion Package 7.(a)(b)</b>	
<p>a. Submit the signed Certificate of Completion to both the local agency and the District for review and approval.</p> <p>b. Ensure that copies of the Certificate of Completion with all approvals are submitted to the local agency, the District, and property owner or his or her designee.</p>	<p>a. Submit the signed Certificate of Completion to the local agency for review.</p> <p>b. Ensure that copies of the approved Certificate of Completion package are submitted to the District and property owner or their designee.</p>
<b>Section: 0.00.040 Other Provisions G. Certificate of Completion Package 8(a)(b).</b>	
<p>8. The District and the local agency shall:</p> <p>a. Receive the signed Certificate of Completion from the project applicant.</p> <p>b. Approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the local agency shall provide information to the project applicant regarding reapplication, appeal or other assistance.</p>	<p>8. The local agency shall:</p> <p>a. Receive the signed Certificate of Completion Package from the project applicant.</p> <p>b. Ensure that copies of the approved Certificate of Completion Package. If the Certificate of Completion is denied, the local agency shall provide information to the project applicant regarding reapplication, appeal or other assistance.</p>
<b>Section: 0.00.040 Other Provisions I. Public Education (3.)</b>	
	<p>3. All model homes that are landscaped shall display signs that provide information demonstrating the principles of water efficient landscapes described in this ordinance.</p> <p>a. Signs shall be used to identify the model home as an example of a water efficient landscape.</p> <p>b. Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes.</p>
<b>Section: 0.00.050 Reporting</b>	
New Section	<p>A. Local agencies shall submit reports to the Department of Water Resources on implementation and enforcement by January 31<sup>st</sup> of each year and address the following:</p> <ol style="list-style-type: none"> <li>1. State whether you are adopting a single agency ordinance or a regional agency alliance ordinance, and the date of adoption or anticipated date of adoption.</li> <li>2. State the entity responsible for implementing ordinance.</li> </ol>

	<ol style="list-style-type: none"> <li>3. The reporting period shall be for the previous calendar year January 1 to December 31.</li> <li>4. State if using a locally modified Water Efficient Landscape Ordinance (WELO) or the MWELO. If using a locally modified WELO, describe how is it different than MWELO, is it at least as efficient as MWELO, and are there any exemptions specified?</li> <li>5. Provide the total number of new construction projects, as defined in Section 0.00.020, with construction initiated during the reporting period for: <ol style="list-style-type: none"> <li>a) Multifamily residential landscape projects;</li> <li>b) Single-family residential landscape projects;</li> <li>c) Non-residential landscape projects; and</li> <li>d) Rehabilitated landscape projects.</li> </ol> </li> <li>6. State the total landscape area (in square feet or acres) subject to the ordinance over the reporting period, if available.</li> <li>7. Describe enforcement measures</li> <li>8. Describe actions taken to verify compliance: <ol style="list-style-type: none"> <li>a) Is a plan check performed; if so, by what entity:</li> <li>b) Is a site inspection performed; if so, by what entity?</li> <li>c) Is a post-installation audit required; if so, by whom?</li> </ol> </li> <li>9. Describe educational and other needs to properly apply the ordinance.</li> <li>10. Explain challenges to implementing and enforcing the ordinance.</li> </ol>
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**Section: Appendix F Schedule of Monetary Penalties**

<ol style="list-style-type: none"> <li>a) \$250 upon receipt of first written Notice of Non compliance.</li> <li>b) An additional \$250 (for a total of \$500) upon receipt of the second Notice of Non compliance.</li> </ol>	<p>Any notice required for a violation under this Ordinance may include, for example and not by way of limitation, the following information: (i) the water conservation restrictions in effect; (ii) actions required for compliance to prevent future violations; and (iii) penalties and enforcement actions which may be imposed for future violations.</p>
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- 1) First Violation – Written notice allowing 30 days for a response with corrections.
- 2) Second Violation, or failure to respond within 30 days to prior violation, will result in a fine in the amount of \$50.00 which will be added to the customer’s water service account or bill.
- 3) Third Violation, or failure to respond within 30 days to prior violation, will result in a fine in the amount of \$100.00 which will be added to the customer’s water service account or bill.
- 4) Fourth Violation, or failure to respond within 30 days to prior violation, will result in a fine in the amount of \$200.00 which will be added to the customer’s water service account or bill.
- 5) Fifth Violation, or failure to respond within 30 days to prior violation, will result in a fine in the amount of \$500.00 which will be added to the customer’s water service account or bill.
- 6) Sixth Violation, or failure to respond within 30 days to prior violation, will result in a fine in the amount of \$1,000.00 which will be added to the customer’s water service account or bill.
- 7) Seventh Violation, or failure to respond within 30 days to prior violation, will result in a fine in the amount of \$2,000.00 which will be added to the customer’s water service account or bill.

In the event of any violation after the seventh violation within a twelve-month period, the General Manager, or his/her designee, may determine, in his/her reasonable discretion, that the continued violation of the provisions set forth in this Ordinance warrant the initiation of procedures for the termination of water service pursuant to CVWD’s Regulations, as they may be amended from time to time. In addition to any other remedies provided in this Ordinance or available under applicable law, CVWD may alternatively seek injunctive relief in the Superior Court or take enforcement action, including discontinuing or appropriately limiting water service by the installation of a flow restricting device to any customer, for violations of this Ordinance. All remedies provided herein shall be cumulative and not exclusive.

Appendix G

Recycled Water Checklist 1, 2, 3, 4

<p>1. Obtain coverage under the general waste discharge requirements for discharge of recycled water for golf course and landscape irrigation Order No. 97-700 or equivalent version of this permit from the California Regional Water Quality Control Board of the Colorado River Basin Region (Regional Board) by submitting a Notice of Intent to the Regional Board and paying application/annual fees.</p> <p>2. Enter into an agreement with CVWD for receiving nonpotable water for golf course and landscape irrigation. The agreement between discharger and CVWD must be provided to the Regional Board within 90 days of receiving coverage under the permit referenced above in item #1.</p> <p>3. Landscape and Irrigation system plans must meet regulatory requirements of Order 97-700 or equivalent version of this permit, the State Board’s Recycled Water Policy, and California Department of Public Health and Safety Code, the Water Code, Title 17 and Title 22 Code of Regulations. These requirements include but are not limited to the following:</p>	<p>1. CVWD to obtain coverage under the State Water Resources Control Board’s Order WQ 2016-0068-DDW for recycled water use by ensuring that the property to be irrigated by recycled water is covered under the Notice of Intent and Title 22 Engineer’s Report submitted to the State Water Resources Control Board.</p> <p>2. The customer is to submit a letter of intent for the use of nonpotable water.</p> <p>3. The customer is to enter into an agreement with CVWD for receiving nonpotable water for golf course, landscape and/or agricultural irrigation. The agreement between discharger and CVWD must be provided to the Regional Board within 90 days of receiving coverage under the permit referenced above in item #1.</p> <p>4. Landscape and Irrigation system plans must be submitted to CVWD and meet regulatory requirements of WQ 2016-0068-DDW or equivalent version of this permit, the State Board’s Recycled Water Policy, and Department of Drinking Water (DDW) Statutes and Regulations related to recycled water, such as the Health and Safety Code, the Water Code, the Cross-Connection Control Policy Handbook and the District’s Code. These requirements include but are not limited to the following;</p>
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Appendix G

Recycled Water Checklist

<p>a) An air gap separation, a vertically measured distance between supply pipe and receiving vessel must be present and meet the required distance for the size of the supply pipe.</p> <p>b) The appropriate type of backflow protection is to be installed for auxiliary water supplies and recycled water.</p> <p>c) The required separation distance between recycled water lines and impoundments and application area; and domestic wells and water lines is maintained and approved by CDPH.</p> <p>d) The design of the irrigation system shall not cause the occurrence of ponding anywhere in the reuse area, and overspray or mist around dwellings, outdoor eating areas and/or food handling facilities is eliminated. Irrigation runoff shall be confined to the recycled water use area unless authorized by CDPH.</p>	<p>a) Completion of the District’s form titled “Nonpotable Water Plan Checklist” for dual plumbed sites. The Nonpotable Water Plan checklist is available on the district’s website.</p> <p>b) Participating in and assisting the District in investigations and tests that provide documentation to ensure that there is no cross connection between potable and recycled water systems.</p> <p>c) Backflow protection assemblies shall be installed to protect the District’s potable water supply. The type of backflow prevention assembly installed shall be consistent with § 3.2.2 and Appendix D of the Cross-Connection Control Policy Handbook, or as otherwise determined by the district after conducting a hazard assessment.</p> <p>d) An air gap (AG) shall be provided at all domestic water service connections to recycled water use</p>
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<p>e) Drinking fountains will be protected from spray, mist or runoff by use of a drinking fountain cover or shelter approved for this purpose.</p> <p>f) Hose bibs are not allowed on portions of recycled water systems accessible to the general public. Quick couplers that differ from those used on the potable water system are allowed.</p> <p>g) Signs are posted in areas that the public has access to that are no less than 4 inches high by 8 inches wide and include "RECYCLED WATER – DO NOT DRINK" and the international do not drink symbol as indicated in CCR Title 22 Division 4 Chapter 3 Article 4 Section as figure 60310-A. The number and locations of these signs will be approved by CDPH.</p> <p>h) The recycled water irrigation system is able to be operated during a time of day that will minimize contact with the public.</p> <p>i) All pipes installed above or below ground on or after June 1, 1993 designed to carry recycled water are to be colored purple or wrapped in purple tape.</p> <p>j) Golf course pump houses utilizing recycled water are appropriately tagged with warning signs with proper wording of sufficient size to warn the public that recycled water is not safe for drinking. All new and replacement at grade valve boxes shall be purple or appropriately tagged for water reuse purposes. All other appurtenances and equipment used for recycled water must be identified as used for recycled water distribution per the recommendations of CDPH.</p>	<p>areas. A swivel-ell in combination with an upstream reduced pressure principle backflow prevention assembly (RP) may be used instead of an air gap (AG), subject to district approval and the criteria established in § 3.2.2 and appendix C of the Cross-Connection Control Policy Handbook. The swivel-ell shall only be operated by the district.</p> <p>e) The required separation distance between recycled water lines and impoundments and application area; and domestic wells and water lines is maintained and approved by DDW.</p> <p>f) The design of the irrigation system shall not cause the occurrence of ponding anywhere in the reuse area, and overspray or mist around dwellings, outdoor eating areas and/or food handling facilities is eliminated. Irrigation runoff shall be confined to the recycled water use area unless authorized by DDW.</p> <p>g) Drinking fountains will be protected from spray, mist or runoff by use of a drinking fountain cover or shelter approved for this purpose.</p> <p>h) Hose bibs are not allowed on portions of the recycled water systems accessible to the general public. Quick couplers that differ from those used on the potable water system are allowed.</p> <p>i) Signs are posted in areas that the public has access to that are no less than 4 inches high by 8 inches wide and include "RECYCLED WATER – DO NOT DRINK" and the international do not drink symbol as indicated in CCR Title 22 Division 4 Chapter 3 Article 4 Section as figure 60310-A. The number and locations of these signs will be approved by CDPH.</p> <p>j) The recycled water irrigation system is able to be operated during a time of day that will minimize contact with the public.</p> <p>k) All pipes installed above or below ground on or after June 1, 1993 designed to carry recycled water are to be colored purple or wrapped in purple tape.</p> <p>l) Golf course pump houses utilizing recycled water are appropriately tagged with warning signs with proper wording of sufficient size to warn the public that recycled water is not safe for drinking. All new and replacement at grade valve boxes shall be purple or appropriately tagged for water reuse purposes. All other appurtenances and equipment used for recycled water must be identified as used for recycled water distribution per the recommendations of CDPH.</p>
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Appendix G Recycled Water Checklist	
4.b. California Department of Public Health	5.b. Department of Drinking Water (DDW)
Appendix G Recycled Water Checklist	
5. Upon approval from the Regional Board and CDPH, the discharger shall provide notification that recycled water will be used for irrigation to people who reside adjacent to the recycled water use area and to golf course patrons through a method approved by the Regional Board's Executive Officer and CDPH at least 30 days prior to use of recycled water.	6. Upon approval from the Regional Board and DDW, the discharger shall provide notification that recycled water will be used for irrigation to people who reside adjacent to the recycled water use area and to golf course patrons through a method approved by the Regional Board's Executive Officer and DDW at least 30 days prior to use of recycled water.
Appendix G Recycled Water Checklist	
7. A cross-connection control test will be performed on the irrigation and domestic systems prior to the discharge of recycled water and at least once every four years thereafter. This test is to be conducted by an American Water Works Association (AWWA) certified cross-connection control program specialist or equivalent. The results of these tests are to be submitted to CVWD, CDPH, and the Regional Board within 30 days of test completion.	8. A cross-connection control test will be performed on the irrigation and domestic systems by CVWD prior to the discharge of recycled water and at least once every four years thereafter. This test is to be conducted by an American Water Works Association (AWWA) certified cross-connection control program specialist or equivalent. The results of these tests are to be submitted to CVWD, DDW, and the Regional Board within 30 days of test completion.
Appendix G Recycled Water Checklist	
8. "As-Built" plans and specifications showing the domestic and irrigation systems, location of all potable and recycled water connections and location of all on-site and nearby wells to CDPH, as per the CDPH requested time frame.	9. "As-Built" plans and specifications showing the domestic and irrigation systems, location of all potable and recycled water connections and location of all on-site and nearby wells to DDW, as per the DDW requested time frame.

**ORDINANCE NO. 1302.6**

**AN ORDINANCE OF THE  
COACHELLA VALLEY WATER DISTRICT  
ESTABLISHING LANDSCAPE  
AND IRRIGATION SYSTEM DESIGN CRITERIA**

Sections:

0.00.010	Purpose and Intent
0.00.020	Definitions
0.00.030	Provisions for New or Rehabilitated Landscapes
0.00.040	Other Provisions
0.00.050	Reporting
0.00.060	Review and Program Monitoring Fees
0.00.070	Appeals
0.00.080	Penalties
0.00.090	Hearing Regarding Penalties
0.00.100	Appeal of Penalties

**0.00.010 Purpose and Intent**

- A. The California State Legislature has found:
1. The waters of the state are of limited supply and are subject to ever increasing demands;
  2. The continuation of California's economic prosperity is dependent on the availability of adequate supplies of water for future users;
  3. It is the policy of the State to promote the conservation and efficient use of water and to prevent the waste of this valuable resource;
  4. Landscapes are essential to the quality of life in California by providing areas for active and passive recreation and as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development;
  5. Landscape design, installation, maintenance and management can and shall be water efficient; and
  6. Section 2 of Article X of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served and the right does not and shall not extend to waste and unreasonable method of use.
- B. Consistent with these legislative findings, the purpose of these criteria is to:
1. Promote the values and benefits of landscaping practices that integrate and go beyond the conservation and efficient use of water;
  2. Establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects by encouraging the use of a watershed approach that requires cross-sector collaboration of industry, government and property owners to achieve the many benefits possible;

3. Establish provisions for water management practices and water waste prevention for existing landscapes;
  4. Use water efficiently without waste by setting a Maximum Applied Water Allowance (MAWA) as an upper limit for water use and reduce water use to the lowest practical amount; and
  5. Promote the benefits of consistent landscape criteria with neighboring local and regional agencies.
- C. It is also the purpose of these criteria to implement the requirements of the California Code of Regulations Title 23. Waters Division 2. Department of Water Resources Chapter 2.7. Model Water Efficient Landscape Ordinance, and State of California Water Conservation in Landscaping Act. Authority cited: Section 65596 and 65596.5 Government Code, Reference: Sections 65593, 65596 and 65596.5 Government Code.
- D. It is the intent of these criteria to promote water conservation through climate-appropriate plant material and efficient irrigation systems, and to create a “Lush and Efficient” landscape theme through enhancing and improving the physical and natural environment.
- E. Applicability
1. These criteria shall apply to all of the following landscape projects:
    - a. New construction and rehabilitated landscapes for public agency projects and private development projects requiring a building or landscape permit, plan check or design review;
    - b. New construction and rehabilitated landscapes which are developer-installed in single-family and multi-family projects requiring a building or landscape permit, plan check or design review;
    - c. New construction and rehabilitated landscapes which are homeowner-provided and/or homeowner-hired in homeowner-occupied single family and multi-family residential projects with a total project landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review; and
    - d. Existing landscapes limited to section 0.00.040 (B).
    - e. Any residential project with an aggregate landscape area of 2,500 square feet or less may comply with the performance requirements of this ordinance or conform to the prescriptive measures contained in Appendix H.
  2. These criteria do not apply to:
    - a. Registered local, state or federal historical sites;
    - b. Ecological restoration projects that do not require a permanent irrigation system;
    - c. Mined-land reclamation projects that do not require a permanent irrigation system; or

- d. Plant collections, as part of botanical gardens and arboretums open to the public.

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**0.00.020 Definitions**

The words used in this section have the meanings set forth below:

**ANTIDRAIN VALVE or CHECK VALVE** - A valve located under/in a sprinkler head to hold water in the system to eliminate drainage from the lower elevation sprinkler heads.

**APPLICATION RATE** - The depth of water applied to a given area, usually measured in inches per hour. Also known as precipitation rate (sprinklers) or emission rate (drippers/microsprayers) in gallons per hour.

**APPLIED WATER** - The portion of water supplied by the irrigation system to the landscape.

**AUTOMATIC IRRIGATION CONTROLLER** - An electronic or solid-state timer capable of operating valve and schedule irrigation events using either evapotranspiration (weather-based) or soil moisture (sensor-based) data.

**BACKFLOW PREVENTION DEVICE** - A safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

**BENEFICIAL USE** - Water used for landscape evapotranspiration.

**BILLING UNITS** - Units of water (100 cubic feet = 1 billing unit = 748 gallons = 1 CCF) for billing purposes. To convert gallons per year to 100 cubic feet per year, divide gallons per year by 748. (748 gallons = 100 cubic feet).

**CONVERSION FACTOR (0.62)** - A number that converts the Maximum Applied Water Allowance from acre-inches per acre to gallons per square foot. The conversion factor is calculated as follows:

(325,851 gallons/43,560 square feet)/12 inches	= (0.62)
325,851 gallons	= one acre-foot
43,560 square feet	= one acre
12 inches	= one foot

**DESERT LANDSCAPE** - A desert landscape using native plants spaced to look like a native habitat.

**DISTRIBUTION UNIFORMITY** - A measure of how evenly sprinklers apply water. The low-quarter measurement method (DULQ) utilized in the irrigation audit procedure is utilized for the purposes of these criteria. These criteria assume an attainable performance level of 75% DULQ for spray heads, 80% DULQ for rotor heads and 85% DULQ for recreational turf grass rotor heads.

**DISTRICT** – Coachella Valley Water District.

**DRIP IRRIGATION** - A non-spray low volume irrigation system utilizing emission devices where water is slowly applied at or below the soil surface and at or near the root zone of plants. Drip irrigation emission devices have a manufacturer specification for flow rate measured in gallons per hour.

**DUAL PLUMBED or DUAL PLUMBED SYSTEM** - a system that utilizes separate piping systems for recycled water and potable water on a property where the recycled water is used for outdoor landscape irrigation at individual residences. The district does not permit the use of nonpotable water to serve plumbing outlets within a building.

**ECOLOGICAL RESTORATION PROJECT** - A project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

**EFFECTIVE PRECIPITATION or USABLE RAINFALL** - The portion of total natural precipitation that is used by the plants, usually assumed to be three inches annually. Precipitation or rainfall is not considered a reliable source of water in the desert.

**EMISSION UNIFORMITY** - A measure of how evenly drip and microspray emitters apply water. The low-quarter measurement method (EULQ) utilized in the landscape irrigation evaluation procedure is utilized for the purposes of these criteria. These criteria assume 90% EULQ for drippers, microsprays and pressure compensating bubblers.

**EMITTER** - Drip irrigation fittings that deliver water slowly from the watering system to the soil.

**ESTABLISHED LANDSCAPE** - The stage at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.

**ESTABLISHMENT PERIOD** - The first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth. Native habitat mitigation areas and trees may need three to five years of establishment.

**ESTIMATED WATER USE (By hydrozone)** - The portion of the estimated annual total applied water use that is derived from applied water to a specified hydrozone.

**ESTIMATED TOTAL WATER USE (Total of all hydrozones)** - The annual total amount of water estimated to be needed by all hydrozones to keep the plants and water features in the landscaped area healthy and visually pleasing. It is based upon such factors as the local evapotranspiration rate, the size of the landscaped area, the size and type of water feature, the types of plants, and the efficiency of the irrigation system. The estimated total water use must be equal to or below the Maximum Applied Water Allowance (MAWA).

EVAPOTRANSPIRATION or ET - The quantity of water evaporated from adjacent soil surfaces and transpired by plants expressed in inches during a specific time.

ET ADJUSTMENT FACTOR - A factor that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. The maximum ETAF allowed in the MAWA equation will be .45 for regular landscape areas and 1.0 for Special Landscape Areas. The ETAF for existing landscapes that were installed before January 1, 2010 and are over one (1) acre in size shall be .70 per section 00.00.040.

FINISHED GRADE – Grade height after surface mulch covering has been installed.

FLOW RATE - The rate at which water flows through pipes, valves and meters (gallons per minute, gallons per hour or cubic feet per second).

FLOW SENSOR – An inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to flow rate. Flow sensors must be connected to a compatible automatic irrigation controller, or flow monitor capable of receiving flow signals and operating master valves. For the purposes of this definition, “compatible” means the flow sensor can communicate with the irrigation controller to allow the controller to record and report actual water usage. This combination flow sensor/controller may also function as a privately-owned submeter.

FUNCTIONAL TURF – A ground cover surface of turf located in a recreational use area or community space. Turf enclosed by fencing or other barriers to permanently preclude human access for recreation or assembly is not functional turf.

HARDSCAPE - Concrete or asphalt areas including streets, parking lots, sidewalks, driveways, patios and decks.

HEAD-TO-HEAD COVERAGE - One hundred percent sprinkler coverage of the area to be irrigated, with maximum practical uniformity.

HIGH FLOW CHECK VALVE - A valve located under/in a sprinkler head to stop the flow of water if the spray head is broken or missing.

HYDROZONE - A portion of the landscaped area having plants with similar water needs that are served by a valve or set of valves with the same schedule. A hydrozone may be irrigated or non-irrigated. For example, a naturalized area planted with native vegetation that will not need supplemental irrigation (once established) is a non-irrigated hydrozone.

INFILTRATION RATE - The rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).

**IRRIGATION EFFICIENCY** - The measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum irrigation efficiency for purposes of these regulations is 0.75 or 75 percent for overhead spray irrigation, .80 or 80 percent for overhead rotor irrigation and .90 or 90 percent for drip systems.

**IRRIGATION WATER USE ANALYSIS** – An analysis of water use data based on meter readings and billing data.

**LANDSCAPE IRRIGATION AUDIT** - An in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting water waste, overspray or runoff that causes overland flow, and preparation of an irrigation schedule.

**LANDSCAPED AREA** - All the irrigated planting areas, turfgrass areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The irrigated planting area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation). The landscape area is the sum of the landscape projects' regular landscape areas (RLA) and special landscape areas (SLA).  $LA = RLA + SLA$ .

**LATERAL LINE** - The water delivery pipeline that supplies water from the valve to the emission devices.

**LOCAL AGENCY** – A city or county responsible for adopting and implementing the ordinance. The local agency is also responsible for enforcement of the ordinance.

**LOW HEAD DRAINAGE** – A condition where water partially or completely drains from the lateral line through the emission device after the irrigation cycle is completed.

**MAIN LINE** - The pressurized pipeline that delivers water from the water source to a valve or outlet.

**MASTER SHUT-OFF VALVE** – An automatic valve installed at the irrigation supply point which controls water flow into the irrigation system. When this valve is closed water will not be supplied to the irrigation system. A master shut-off valve will greatly reduce any water loss due to a ruptured pipe or leak in the irrigation system.

**MATCHED PRECIPITATION RATE** – Means that all emission devices within a hydrozone deliver water at a similar precipitation rate per unit of time.

**MAXIMUM APPLIED WATER ALLOWANCE (MAWA)** - For design purposes, the upper limit of annual applied water for the established landscape area. It is based upon the area's reference evapotranspiration, ET adjustment factor, and the size of the regular landscape area (RLA) and the special landscape area (SLA). .  $MAWA = (ET_o)(0.62)[ETAF \times RLA + 1 \times SLA]$ .

**MEDIAN** – A landscape project area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.

**MICROIRRIGATION** - See drip irrigation.

**MULCH** - Any organic materials such as leaves, bark, straw or compost, applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion. Mulch includes inorganic mineral materials such as rocks, gravel, or decomposed granite left loose.

**MULTIFAMILY RESIDENTIAL LANDSCAPE** – the landscape area surrounding or associated with any structure designed for human habitation that has been divided into two or more legally created independent living quarters.

**NATIVE PLANTS** - Native plants are low water using plants that are: 1) indigenous to the Coachella Valley and lower Colorado Desert region of California and Arizona, 2) native to the southwestern United States and northern Mexico or 3) native to other desert regions of the world but adapted to the Coachella Valley.

**NATURAL GRADE** – Grade height of native soil before application of surface mulch.

**NEW CONSTRUCTION** – for the purpose of this ordinance, a new building with a landscape area or other new landscape project, such as a park, playground, or greenbelt without an associated building.

**NONFUNCTIONAL TURF**- Any turf that is solely ornamental and not functional turf, and includes turf located within street rights-of-way and parking lots. Non-functional turf does not include sports fields, golf courses, parks, cemeteries and mortuaries, pet relief turf, turf that is regularly used for human recreational purposes or for civic and community events.

**NON-RESIDENTIAL LANDSCAPE** – the landscape area surrounding or associated with commercial, institutional, industrial and public settings that may have areas designated for recreation or public assembly. It also includes the landscape area associated with common areas of common interest developments with designated recreational areas.

**NON-POTABLE WATER** – Canal water or treated or recycled wastewater of a quality suitable for non-potable uses such as landscape irrigation. Non-potable water is not for human consumption.

**OPERATING PRESSURE** - The pressure at which an irrigation system's sprinklers, bubblers, drippers or microsprays are designed by the manufacturer to operate, usually indicated at the base of an irrigation head.

**OVERHEAD IRRIGATION SYSTEMS** - Irrigation systems that deliver water through the air.

**OVERSPRAY** - Irrigation water which is delivered beyond the target area.

**PARKWAY** – The area between a sidewalk and the curb or traffic lane. It may be planted or unplanted, and with or without pedestrian access.

**PERMIT** – An authorizing document issued by local agencies for new construction or rehabilitated landscapes.

**PERVIOUS** – Any surface or material that allows the passage of water through the material and into the underlying soil.

**PLANT FACTOR** - A factor that, when multiplied by evapotranspiration, estimates the amount of water used by plants. For purposes of these criteria, the average plant factor of very low water using plants ranges from 0.01 to 0.10, for low water using plants the range is 0.10 to 0.30, for moderate water using plants the range is 0.40 to 0.60, and for high water using plants, the range is 0.70 to 0.90. Plant factors cited in this ordinance are derived from the database "Water Use Classification of Landscape Species" (WUCOLS).

**PRESSURE COMPENSATING (PC) BUBBLER** – An emission device that allows the output of water to remain constant regardless of input pressure. Typical flow rates for this type of bubbler range between 0.25 gpm to 2.0 gpm.

**PRESSURE COMPENSATING SCREENS/DEVICES** - Small screens/devices inserted in place of standard screens/devices that are used in sprinkler heads for radius and high pressure control.

**RAIN-SENSING DEVICE** - A system which automatically shuts off the irrigation system when it rains.

**RECORD DRAWING or AS-BUILTS** - A set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

**RECREATIONAL AREA** - Areas designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheaters or golf course tees,

fairways, roughs, surrounds and greens. Private single-family residential landscapes are not recreational areas.

**RECYCLED WATER** - Treated wastewater of a quality suitable for nonpotable uses such as golf course, landscape and agricultural irrigation, as described in California Code of Regulations, Title 22, Division 4, Chapter 3. Recycled water is not intended for human consumption.

**REFERENCE EVAPOTRANSPIRATION or ETo** - A standard measurement of the environmental parameters which affect the water use of plants, using cool season grass as a reference. ETo is expressed in inches per day, month or year and is an estimate of the evapotranspiration of a large field of cool-season grass that is well watered. The annual reference evapotranspiration is used as a basis of determining the Maximum Applied Water Allowances so that regional differences in climate can be accommodated. For purposes of these criteria, CVWD Drawing No. 29523 will be used for ETo zones.

**REHABILITATED LANDSCAPE** - Any re-landscaping project in which the choice of new plant material and/or new irrigation system components is such that the calculation of the site's estimated water use will be significantly changed. The new estimated water use calculation must not exceed the Maximum Applied Water Allowance (MAWA) calculated for the site using a 0.45 ET adjustment factor.

**RIPARIAN PLANTS** - Riparian plants are high water using and water-loving plants that are found growing naturally along flowing rivers and lake shores. They may also be native to wet swampy areas with high water tables or poor drainage.

**RUNOFF** - Irrigation water which is not absorbed by the soil or landscape to which it is applied and flows from the target landscape area. Runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate), from low head drainage, or when there is a slope.

**SERVICE LINE** - The pressurized pipeline that delivers water from the water source to the water meter.

**SINGLE-FAMILY RESIDENTIAL LANDSCAPE** – The landscape areas surrounding or associated with a one or two-family dwelling or townhouse. Swimming pools of single-family residential landscapes are water features and not special landscape areas.

**SOIL MOISTURE-SENSING DEVICE** - A device that measures the amount of water in the soil and sends a signal to the automatic irrigation controller to interrupt or initiate an irrigation event.

**SOIL TEXTURE** - The classification of soil based on the percentage of sand, silt and clay in the soil.

**SPECIAL LANDSCAPE AREA (SLA)** – An irrigated area that may be all or part of the landscape project and is permanently and solely dedicated to edible plants such as orchards and vegetable gardens, recreational areas, areas irrigated with recycled water, water features using recycled water or non-potable canal water created solely to act as an irrigation reservoir.

**SPRINKLER HEAD** – An emission device that applies water by converting water pressure to a high velocity discharge stream or stream(s) through the air by a nozzle (e.g. spray, rotors, and rotators). Sprinklers have a manufacturer specification for flow rate measured in gallons per minute.

**STATIC WATER PRESSURE** - The pipeline or municipal water supply pressure when water is not flowing.

**STATION** - A hydrozone served by a circuit on an automatic irrigation controller that operates either one valve or a set of valves that operate simultaneously.

**SUBMETER** – A privately owned metering device to measure water applied to the landscape that is installed after the primary utility water meter.

**TURFGRASS** – A living ground cover surface of mowed grass.

**VALVE** - A device used to control the flow of water in the irrigation system.

**WATER BUDGET CALCULATION** – The calculation of a landscape water budget defined by Estimated Total Water Use (ETWU) and Maximum Applied Water Allowance (MAWA).

**WATER FEATURE** – A design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of water features is included in the high-water use hydrozone on the landscape area. Water features use more water than efficiently irrigated turf grass and are assigned a plant factor of 1.1 for a stationary body of water and 1.2 for a moving body of water. Constructed wetlands used for on-site wastewater practices that are not irrigated and used solely for water treatment or stormwater retention are not water features and, therefore, are not subject to the water budget calculation.

**WATER WASTE** – The overapplication of water through inefficient landscape irrigation that causes runoff to leave the target landscape area onto adjacent property, non-irrigated landscapes, private and public walkways, roadways, parking lots, or structures. Water waste includes low head drainage, overspray, runoff, or other similar conditions that cause overland flow.

**WUCOLS** – means the Water Use Classification of Landscape Species maintained by the California Center for Urban Horticulture, University of

California. WUCOLS is an online database that classifies and provides regional water needs for commonly available landscape plants.

**0.00.030 Provisions for new or rehabilitated landscapes**

- A. Submittal and Approval of a Landscape Documentation Package
1. Prior to construction, the project applicant shall:
    - a. Submit one copy of a Landscape Documentation Package to the Coachella Valley Water District (District) that conform to this chapter. No water meter will be issued until the District reviews and approves the Landscape Documentation Package.
    - b. Submit one copy of the Landscape Documentation Package to the local agency (city/county).
  2. Upon receipt of the Landscape Documentation Package, the District shall:
    - a. Review the Landscape Documentation Package.
    - b. Approve or deny the Landscape Documentation Package.
  3. Upon approval of the Landscape Documentation Package, the District will:
    - a. Sign and date the approved plans and return them to the project applicant.
  4. Upon approval of the Landscape Documentation Package by the local agency, the project applicant shall:
    - a. Receive an approval of the landscape design review or plan check.
    - b. Record the date of approval in the Certificate of Completion.
    - c. Submit a copy of the approved Landscape Documentation Package, along with the record drawings and any other information, to the property owner or designee.
  5. Each Landscape Documentation Package shall include the following elements:
    - a. A completed Landscape Documentation Package Checklist (Appendix A), which includes the date, project applicant, and project address information. This checklist serves to verify that the elements of the Landscape Documentation Package have been completed.

- b. Total landscaped area (square feet)
  - c. Project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed, etc.)
  - d. Water Efficient Landscape Worksheet (Appendix B), which shall be imbedded in the plan sheets of the Landscape Documentation Package, and include the following:
    - i. Hydrozone Information Table (reference Appendix B Section A.)
  - e. Water Budget Calculations (reference Appendix D) that adhere to the following requirements:
    - i. The plant factor used shall be from WUCOLS. The plant factors ranges from 0 to 0.3 for the low use plants, from 0.4 to 0.6 for the moderate use plants, from 0.7 to 1.0 for the high use plants and 1.1 to 1.2 for water features.
    - ii. All water features shall be included in the 1.1 to 1.2 hydrozone and temporary irrigated areas shall be included in the low water use hydrozone.
    - iii. For the calculation of the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use, a project applicant shall use ETo values from the Reference Evapotranspiration Table, Appendix C. For geographic areas not covered in Appendix C, use data from other cities located nearby in the same reference evapotranspiration zone.
  - f. Landscape Design Plan
  - g. Irrigation Design Plan
  - h. Grading Design Plan (as required)
  - i. Soil Management Report (as required)
  - j. All plans must contain a signature block for both the local agency and the District.
6. The Landscape Documentation Package shall be submitted by the following procedure:
- a. The applicant or applicant's representative will email or upload a digital copy of the Landscape Documentation Package to the District, and the local agency, as applicable.
  - b. The plans will normally be returned to the applicant with comments by the District (Water Management Department) within ten working days of receipt.
  - c. After noted corrections have been made, the applicant shall re-submit the Landscape Documentation Package to the District for approval and signing by the Water Management Department and Development Services Department for the District.

d. Digital copies of the signed plans will be held by the District and be returned to the applicant upon payment of all applicable plan check fees.

e. For direct communication:

Telephone No.: (760) 398-2651 Water Management Department

E-mail Address: LandscapePlanning@cvwd.org

Mailing Address: Coachella Valley Water District  
Attention: Water Management Department  
Post Office Box 1058  
Coachella, California 92236

Hand Delivery or Shipping Address: Coachella Valley Water District  
Attention: Water Management Department  
85-995 Avenue 52  
Coachella, California 92236

Hand Delivery or Shipping Address: Coachella Valley Water District  
Attention: Water Management Department  
75-525 Hovley Lane East  
Palm Desert, California 92211

f. The District will inspect the landscaped area(s) for conformance with the approved Landscape Documentation Package. Landscaping that does not conform to the approved Landscape Documentation Package is subject to penalties as provided in Section 0.00.080.

7. Upon construction of the project the applicant or representative shall:

- a. Complete all components of the Certificate of Completion.
- b. Provide the Certificate of Completion to the District and Local Agency.

**B. Landscape Design Plan**

A landscape design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation package. For the efficient use of water, a landscape shall be carefully designed and planned for the intended function of the project.

- 1. Any plant may be selected for the landscape, providing the Estimated Total Water Use in the landscape area does not exceed the Maximum Applied Water Allowance (MAWA). To encourage the efficient use of water the following is highly recommended:

- a. Protection and preservation of native species and natural vegetation;
  - b. Selection of water-conserving plant and turf species;
  - c. Selection of trees based on applicable local tree ordinances or tree shading guidelines; and
  - d. Selection of plants from local and regional landscape program plant lists.
2. Specifications for Landscape Design Plan
- The landscape design plan shall be drawn on 36-inch by 24-inch project base sheets at a scale that accurately and clearly identifies the following:
- a. Tract name, tract number or parcel map number on cover sheet.
  - b. Proposed planting areas.
  - c. Plant material location and size.
  - d. Plant botanical and common names.
  - e. Plant spacing, where applicable.
  - f. Natural features including, but not limited to, rock outcroppings, and existing trees and shrubs that will remain incorporated into the new landscape.
  - g. Vicinity map showing site location on top sheet or on cover sheet.
  - h. Title block on each sheet with the name and address of the project, and the name and address of the professional design company with its signed professional stamp, if applicable.
  - i. Reserve two 6-inch by 3-inch spaces for a) the local agency signature block and b) a District signature block in lower right corner of the cover sheet and on all of the landscape, irrigation design/detail/specification sheets. The District signature block can be found on the Professional Landscaper section of the Conservation page at [cvwd.org](http://cvwd.org).
  - j. Show plan scale and north arrow on design sheets.
  - k. Show graphic scale on all design sheets.
  - l. Show all property lines and street names.
  - m. Show all paved areas, such as driveways, walkways and streets.
  - n. Show all pools, ponds, lakes, fountains, water features, fences and retaining walls.
  - o. Show locations of all overhead and underground utilities within project area.
  - p. Provide an index map, as necessary, showing the overall project, including all 1/4 and 1/16 section lines and section numbers.
  - q. Show this note on each design sheet stating, "No permanent structures or trees within CVWD and/or USBR easements. CVWD

will not be responsible for damage or replacement of any surface improvements, including but not limited to, decorative concrete, landscaping, curb, gutter, sidewalks, planters, gates and related improvements installed within CVWD and/or USBR easements.”

In addition, no trees shall be installed within 15’ of a CVWD and/or USBR pipeline. Surface improvements may be installed within CVWD and/or USBR easements only upon the prior consent of CVWD, which consent may be granted or denied at CVWD’s sole discretion. In the event of such consent, then a Non-interference review letter (NIRL) may apply per Section 3.4 of CVWD’s Development Design Manual.

- r. Show Maximum Applied Water Allowance (MAWA) for the proposed project. (See formula in Appendix C and Sample MAWA, Appendix D.)
- s. Show total landscaped area in square feet. Separate area square footages by hydrozone. Show the total percentage area of each hydrozone. Include total area of all water features as separate hydrozones of still or moving water. Show Estimated Total Water Use, for each major plant group hydrozone and water feature hydrozone expressed in either seasonal (turf grass) or annual (trees, shrubs, groundcovers and water features) billing units.
- t. Show Total Estimated Total Water Use for each major plant group hydrozone and water feature hydrozone expressed in either seasonal (turf grass) or annual (trees, shrubs, groundcovers and water features) billing units.
- u. Show Total Estimated Water Use (ETWU) for the entire project. (Formula in Appendix C and on Sample Calculation Estimated Water Use, Appendix D.) The Total Estimated Use shall not exceed the Maximum Applied Water Allowance (MAWA).  
The Estimated Total Water Use (ETWU) for a phase within a tract may exceed the Maximum Applied Water Allowance for that phase so long as the ETWU does not exceed the MAWA within the overall tract. In the event this occurs calculations showing all phase totals should be imbedded within each plan submission for the tract.
- v. Identify special landscape areas, including (a) recreational areas; (b) areas permanently and solely dedicated to edible plants; (c) areas irrigated with or water features using recycled water; (d) water features using non-potable canal water created solely to act as an irrigation reservoir.
- w. When model homes are included, show the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use (by hydrozone with totals) for each model unit.

### 3. Landscape Design Criteria

- a. The landscape design must be carefully planned and take into account the intended function of the project.
- b. Plants' appropriateness shall be selected based upon their adaptability to the climatic, geologic and topographical conditions of the site.
- c. Selection of water-efficient and low-maintenance plant material is required.
- d. All planted areas must be a minimum of one inch below adjacent hardscapes to eliminate runoff and overflow.
- e. Long, narrow or irregularly shaped turf areas shall not be designed because of the difficulty in irrigating uniformly without overspray onto hardscaped areas, streets and sidewalks. Areas less than 10 feet in width shall not be designed with turf. Turf will be allowed in these areas only if irrigation design reflects the use of subsurface irrigation or a surface flow/wick irrigation system.
- f. The irrigation of nonfunctional turf located on commercial, industrial, and institutional properties, other than a cemetery, and on properties of homeowners' associations, common interest developments, and community service organizations or similar entities is prohibited.
- g. Turf areas irrigated with spray/rotor systems must be set back at least 24 inches from curbs, driveways, sidewalks or any other area that may result in runoff of water onto streets. An undulating landscape buffer area created by the setback shall be designed with rocks, cobble or decomposed granite and/or can be landscaped with drip irrigated shrubs/accents or covered with a suitable ground cover.
- gh. Plants having similar water use shall be grouped together in distinct hydrozones.
- i. The use of a soil covering mulch or a mineral groundcover of a minimum three inch depth to reduce soil surface evaporation is required around trees, shrubs and on nonirrigated areas. The use of boulders and cobble shall be considered to reduce the total vegetation area.
- j. Annual color plantings shall be used only in areas of high visual impact and must be irrigated with drip, microirrigation or other systems with efficiencies of 90 percent or greater. Otherwise, drip irrigated, perennial plantings should be the primary source of color.
- k. Native desert plants shall be specified to be planted in a shallow, wide, rough hole two times the root ball width. The root ball will be set on either undisturbed native soil or a firmed native soil. The root ball top will be set even with the finished surface grade or above grade if the soil is poorly drained. The hole must be

backfilled with native soil. Extra soil may be used to mound up around plants where the soil is poorly drained.

- l. Landscaping must not obstruct or interfere with street signs, lights or road/walkway visibility. Screening may be provided by walls, berms or plantings.
- m. High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians and parkways
- n. Use locally approved plant materials lists in the selection of appropriate plants.
- o. Planter islands in parking lots with canopy trees shall be sized to meet local land use agency requirements.
- p. A landscape plan in fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required per Public Resources Code Section 4291 (a) and (b). Avoid fire-prone plant material and highly flammable mulches.
- q. The use of invasive and/or noxious plant species is prohibited.
- r. The architectural guidelines of a common interest development, which includes community apartment projects, condominiums, planned developments and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group.

#### C. Grading Design Plan

1. For efficient use of water, grading of a project site shall be designed to minimize soil erosion, runoff and water waste. A grading plan shall be submitted as part of the Landscape Documentation Package. A comprehensive grading plan prepared by a civil engineer for other local agency permits satisfies this requirement.
2. The project applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the landscape area including;
  - a. Height of graded slopes;
  - b. Drainage patterns;
  - c. Pad elevations;
  - d. Finish grade; and
  - e. Stormwater retention improvements, if applicable.
3. To prevent excessive erosion and runoff, it is highly recommended, and per local agency requirements, that project applicants:
  - a. Grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable hardscapes;

- b. Avoid disruption of natural drainage patterns and undisturbed soil; and
  - c. Avoid soil compaction in landscape areas.
4. The grading design plan shall contain the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the grading plan."
  5. Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape and where 25% means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent).
  6. Slopes greater than 25% shall not be irrigated with an irrigation system with a precipitation rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff must be confirmed during an irrigation audit.
  7. All grading must retain normal stormwater runoff and provide for an area of containment. All irrigation water must be retained within property lines and not allowed to flow into public streets or public rights-of-way. Where appropriate, a simulated dry creek bed may be used to convey storm drainage into retention areas. A drywell shall be installed if the retention basin is to be used as a recreational area.
  8. Mounded or sloped planting areas that contribute to runoff onto hardscape are prohibited. Sloped planting areas above a hardscaped area shall be avoided unless there is a drainage swale at toe of slope to direct runoff away from hardscape.
  9. Median islands must be graded to prevent stormwater and excess irrigation runoff.

#### D. Irrigation Design Plan

For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturers recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the following criteria shall be submitted as part of the Landscape Documentation Package.

Separate landscape water meters shall be installed for all projects except single family homes with a landscape area less than 5,000 square feet. Landscape meters for single family homes with a landscape area over 5,000 square feet may be served by a permanent service connection provided by the District or be a privately owned submeter installed at the irrigation point of connection on the customer service line. When irrigation water is from a well, the well shall be metered. The irrigation design plan shall be drawn on project base sheets. It should be separate from, but use the same format as, the landscape design plan. The irrigation system specifications shall accurately and clearly identify the following:

1. Specifications for Irrigation Design.
  - a. Control valves, manufacturer's model number, size and location.
  - b. Irrigation head manufacturer's model number, radius, operating pressure, gallons per minute/gallons per hour (gpm/gph) and location.
  - c. Piping type, size and location.
  - d. Point of connection or source of water and static water pressure.
  - e. Meter location and size (where applicable).
  - f. Pump station location and pumping capacity (where applicable).
  - g. Power supply/electrical access and location.
  - h. Plan scale and north arrow on all sheets.
  - i. Graphic scaling on all irrigation design sheets.
  - j. Irrigation installation details and notes/specifications.
  - k. The irrigation system shall be automatic, constructed to discourage vandalism and simple to maintain.
  - l. All equipment shall be of proven design with local service available.
  - m. Show location, station number, size, and design gpm of each valve on plan. Control valves shall be rated at 200 psi.
  - n. Visible sprinklers near hardscape shall be of pop-up design.
  - o. All heads should have a minimum number of wearing pieces with an extended life cycle.
  - p. Sprinklers, drippers, valves, etc., must be operated within manufacturer's specifications.
  - q. Manual shut-off valves shall be fully ported ball valves or butterfly valves. Manual shut-off valves are required upstream of automatic valve manifolds.
  - r. Master valves shall be metal, located as close to the point of connection as possible, and be metal piped between the master valve and the water meter.
  - s. Flow sensors that detect and report high flow conditions created by system damage or malfunction are required for all non-residential projects and residential landscapes over 5,000 square feet.
  - t. The following statement "I have complied with the criteria of the ordinance and have applied them accordingly for the efficient use of water in the irrigation design plan;" and
  - u. The signature of a licensed landscape architect, certified irrigation designer, irrigation consultant, landscape contractor or any other person authorized to design an irrigation system.
2. Specifications for Irrigation Efficiency

The minimum irrigation efficiency shall be 0.75 (75%). Greater irrigation efficiencies are expected from well designed and maintained systems. The following are required:

- a. Design spray head and rotor head stations with consideration for worst wind conditions. Close spacing and low-angle nozzles are required in high and frequent wind areas (ETo Zone No. 5).
- b. Spacing of sprinkler heads shall not exceed manufacturer's maximum recommendations for proper coverage. The plan design shall show a minimum of 0.75 (75%) distribution uniformity.
- c. Only irrigation heads with matched precipitation rates shall be circuited on the same valve.
- d. Valve circuiting shall be designed to be consistent with hydrozones.
- e. Individual hydrozones that mix plants that are moderate and low water use may be allowed if:
  - (i) plant factor calculation is based on the proportions of the respective plant water uses and their plant factor; or
  - (ii) the plant factor of the higher water using plant is used for the calculations.
- f. Individual hydrozones that mix high and low water use plants shall not be permitted.
- g. On the landscape design plan and irrigation design plan, hydrozone areas shall be designated by number, letter, or other designation. On the irrigation design plan, designate the areas irrigated by each valve, and assign a number to each valve. Use this valve number in the hydrozone information table. This table can assist with pre-inspection and final inspection of the irrigation system, and programming the controller.

### 3. Irrigation System Criteria

- a. Reduced pressure backflow prevention devices shall be installed behind meter at curb by the District.
- b. Show location, station number, size and design gpm of each valve on plan.
- c. Smart Controllers shall be specified for all projects. This includes climate based or sensor based controllers, which can automatically adjust for local weather and/or site conditions.
- d. High flow check valves shall be installed in or under all heads adjacent to street curbing, parking lots and where damage could occur to property due to flooding, unless controllers with flow sensor capabilities are specified that can automatically shut off individual control valves when excess flow is detected.

- e. Pressure compensating screens/devices shall be specified on all spray heads to reduce radius as needed to prevent overthrow onto hardscape and/or to control high pressure misting.
  - f. All irrigation systems shall be designed to avoid runoff onto hardscape from low head drainage, overspray and other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways or structures.
  - g. Rotor type heads shall be set back a minimum of 4 feet from hardscape.
  - h. The use of drip, microirrigation or pressure compensating bubblers or other systems with efficiencies of 90 percent or greater is required for all shrubs and trees. Small, narrow (less than 8 feet), irregularly shaped or sloping areas shall be irrigated with drip, microspray or PC (pressure-compensating) bubbler heads.
  - i. Trees in turf areas shall be on a separate station to provide proper deep watering.
  - j. Street median irrigation
    - i. No overhead sprinkler irrigation system shall be installed in median strips or in islands.
    - ii. Median islands or strips shall be designed with either a drip emitter to each plant or subsurface irrigation. Bubblers used for trees must be fixed-flow pressure compensating type. Adjustable bubblers are prohibited
  - k. Meter sizing for landscape purposes shall be 33 gpm per planted acre. Maximum design meter flow rates are: 3/4" = 23 gpm, 1" = 37 gpm, 1-1/2" = 80 gpm, 2" = 120 gpm
  - l. Large projects located outside Improvement District No. 1 of the Coachella Valley Water District shall connect to or provide future connection to recycled water if such water is available. Large projects located inside Improvement District No. 1 may be required to connect to canal irrigation water or recycled water if such water is available. **(See attached boundary map.)**
4. Drip Irrigation System Criteria
- a. The drip system must be sized for mature-size plants.
  - b. The irrigation system should complete all irrigation cycles during peak use in about 12 hours. Normally, each irrigation controller should not have more than four drip stations that operate simultaneously.
  - c. Field installed below ground pipe connections shall be threaded PVC or glued PVC. Surface laid hose and tubing is prohibited. Polyethylene tubing is allowed only in subsurface installations. Drip emitter installation shall be directly into polyethylene tubing

on a ¼ inch thick-walled riser. Multi-port outlet devices and multi-port distribution is prohibited.

- d. Proportion gallons per day per plant according to plant size. The following sizing chart is for peak water use. The low to high end of the range is according to the relative water requirements of the plants. The low end is for desert natives and the high end is for medium water use type plants.

Size of Plant	Gallons Per Day
Large trees (over 30-foot diameter)	58+ to 97+
Medium trees (about 18-foot diameter)	21 to 35
Small trees/large shrubs (9-foot diameter)	6 to 10
Medium shrubs (3.5-foot diameter)	.8 to 1.3
Small shrubs/groundcover	.5 or less

- e. Plants with widely differing water requirements shall be valved separately. As an example, separate trees from small shrubs and cactus from other shrubs. Multiple emitter point sources of water for large shrubs and trees must provide continuous bands of moisture from the root ball out to the mature drip line plus 20 percent of the plant diameter. See Appendix C for more information on emitter spacing and wetted area.

- f. Most plants require 50 percent or more of the soil volume within the drip line to be wetted by the irrigation system. See Appendix C for more information. For additional information on plant watering and plant relative water needs, see the plant list section of the "Lush and Efficient, Desert Friendly Landscaping in the Coachella Valley" or a list provided by the local agency.

5. Recycled Water Specifications

- a. Customers interested in the use of nonpotable water including recycled water shall contact CVWD to determine feasibility of the connection. Upon approved feasibility determination, the customer will submit a letter of intent to CVWD. The customer will enter into a Nonpotable Water Agreement and obtain a Recycled Water Use Permit pursuant to CVWD 3.35.120. A recycled water use permit or Nonpotable Water Agreement does not authorize violations of any local, state, or federal law or regulation. Every customer has an independent obligation to comply with all applicable local, state, and federal laws and regulations.

- b. Customers approved for recycled water use must comply with Chapter 3.35 of the District's Code.
  - c. Nonpotable Water is considered an interruptible supply of water. Nonpotable Water customers must have a backup water supply that is in "ready" status and is capable of working in tandem with the nonpotable water being supplied by CVWD. The backup water supply is typically groundwater produced by a privately owned well or produced as a domestic water supply by a well owned by CVWD. The backup water supply shall be metered.
  - d. Sites using recycled water are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits or the provisions of these design criteria.
  - e. A Recycled Water Checklist is included in Appendix G.
6. Irrigation Water (Nonpotable) Specifications
- a. When a site is using nonpotable irrigation water that is not recycled water (from an on-site well or canal water) all hose bibs shall be loose key type and quick coupler valves shall be of locking type with nonpotable markings to prevent possible accidental drinking of this water.
  - b. Sites using nonpotable irrigation water are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits or the provisions of these design criteria.
7. Groundwater Water Specifications
- a. Sites using groundwater irrigation water from wells are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits, or the provisions of these design criteria.
8. Golf Course Criteria
- a. For all new golf courses and additions or renovations to existing golf courses, the area of irrigated turf used for tees, fairways, greens and practice areas shall be limited. The total turf area of the golf course shall be limited to a maximum of four (4) irrigated acres average per golf hole. Practice areas such as driving ranges and short game areas shall not exceed ten (10) acres of turf. The golf course design shall reflect the natural topography and drainage ways of the site, minimize the clearing of vegetation and be flexible and water efficient in design.
  - b. All nonturf areas such as ponds, lakes, artificial water courses, bunkers and irrigated landscapes within the golf course project area must not exceed the Maximum Applied Water Allowance (MAWA) calculations set forth within these design criteria.

**00.00.040 Other Provisions**

- A. Landscape Audit, Irrigation Survey, and Irrigation Water Use Analysis for New Construction and Rehabilitated Landscapes
1. This section shall apply to new construction and rehabilitated landscape projects installed after January 1, 2010 as described in Section 0.00.030.
  2. All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.
  3. The project applicant shall submit an irrigation audit report with the Certificate of Completion to the local agency that may include, but not be limited to, inspection, system tune-up, system test with distribution uniformity, reporting overspray or run-off that causes overland flow, and preparation of an irrigation schedule, including configuring irrigation controllers with application rate, soil types, plant factors, slope, exposure and any other factors necessary for accurate programming;
  4. The District will administer programs that may include, but not be limited to, irrigation water use analysis, irrigation audits and irrigation surveys for compliance with the Maximum Applied Water Allowance (MAWA).
  5. The owner of the landscaped area shall bear the cost of the audit.
- B. Irrigation Audit, Irrigation Survey and Irrigation Water Use Analysis for Existing Landscapes
1. This section shall apply to all existing landscapes that were installed before January 1, 2010 and are over one (1) acre in size.
  2. The District will administer programs that may include, but not be limited to, irrigation water analysis, irrigation surveys and irrigation audits that verify landscape water use does not exceed the Maximum Applied Water Allowance (MAWA) for existing landscapes. The Maximum Applied Water Allowance (MAWA) for existing landscapes shall be calculated as:  $MAWA = (.70) (ET_o) (LA) (.62/748)$  unless landscape plans were submitted and approved under a more water conserving ordinance.
- C. Water Waste Prevention
1. Water Waste Prevention. To prevent the unreasonable use of water and to promote water conservation, the use of water is prohibited as identified herein. The following prohibitions shall be in effect, except where necessary to address an immediate health, safety and sanitation need or to comply with a term or condition of a permit issued by a state or federal agency:
    - a. Spray irrigation of landscapes during and within 48 hours after measurable rainfall of 0.10 inches.
    - b. Irrigation of landscapes outside of newly constructed homes and buildings (since landscape ordinance originally adopted) in a manner inconsistent with regulations or other requirements established in this ordinance or the California Department of Housing and Community Development Building standards.

- c. Broken sprinklers shall be repaired as soon as practicable. If notified by CVWD, then the repair shall be made within 5 business days of said notice.
  - d. Applying any water to outdoor landscapes in a manner that causes runoff such that water flows, or over sprays, onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures.
  - e. Using a hose to wash a vehicle, windows, solar panels, or tennis courts, unless an automatic shut-off nozzle or pressure washer is used.
  - f. Applying water to any hard surface including, but not limited to driveways, sidewalks, concrete, and asphalt is prohibited unless to address immediate health and safety needs. Reasonable pressure washer or water broom use is permitted.
  - g. Homeowner's Associations, community service organizations or similar entities are prohibited from enforcing provisions of their rules and regulations that prohibit reducing or eliminating the watering of vegetation or lawns during a declared drought emergency.
  - h. Using any water in a fountain or other decorative water feature is prohibited, unless the water recirculates.
  - i. Penalties for violation of these prohibitions are established in Section 0.00.080.
2. Water service to customers who cause water waste may have their service discontinued.
  3. Customers who appear to be exceeding the Maximum Applied Water Allowance (MAWA) may be interviewed by the District Water Management Department to verify customer water usage to ensure compliance.
- D. Soil Management Report
1. In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the project applicant or designee as follows:
    - a. Submit soil samples to a laboratory for analysis and recommendation.
    - b. Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.
    - c. The soil analysis may include:

- i. Determination of soil texture, indicating the available water holding capacity.
      - ii. An approximate soil infiltration rate (either) measured or derived from soil texture/infiltration rate tables. A range of infiltration rates shall be noted where appropriate.
      - iii. Measure of pH, total soluble salts and percent organic matter.
    - d. The project applicant or designee shall comply with one of the following:
      - i. If significant mass grading is not planned, the soil analysis report shall be submitted to the local agency as part of the Landscape Documentation Package; or
      - ii. If significant mass grading is planned, the soil analysis report shall be submitted to the local agency as part of the Certificate of Completion.
    - e. The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and the irrigation plans to make any necessary adjustments to the design plans.
    - f. The project applicant or designee shall submit documentation verifying implementation of soil analysis report recommendations to the local agency with the Certificate of Completion.
- E. Developer-Provided Documentation
- 1. The developer/applicant/designee shall provide an approved copy of the Landscape Documentation Package and the following information for the homeowner or irrigation system operator. The package/information shall include a set of drawings, a recommended monthly irrigation schedule, and a recommended irrigation system maintenance schedule as described in Section 0.00.040G.
  - 2. Irrigation Schedules. For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water to maintain plant health. Irrigation schedules shall meet the following criteria:
    - a. An annual irrigation program with monthly irrigation schedules shall be required for the plant establishment period, for the established landscape, and for any temporarily irrigated areas. The irrigation schedule shall:
      - i. Include run time (in minutes per cycle), suggested number of cycles per day, and frequency of irrigation for each station.
      - ii. Provide the amount of applied water (in hundred cubic feet) recommended on a monthly and annual basis.

- iii. Whenever possible, incorporate the use of evapotranspiration data, such as those from the California Irrigation Management Information System (CIMIS) weather stations, to apply the appropriate levels of water for different climates.
- iv. Whenever possible, be scheduled between 8:00 p.m. and 10:00 a.m. to avoid irrigating during times of high wind or high temperature. Run times and other water efficient requirements may be imposed by the CVWD Board of Directors from time to time.

#### F. Maintenance Schedules

A regular maintenance schedule satisfying the following conditions shall be submitted as part of the Landscape Documentation Package:

1. Landscapes shall be maintained to ensure water efficiency. A regular maintenance schedule shall include but not be limited to checking, adjusting, cleaning and repairing equipment; resetting the automatic controller, aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning; and weeding in all landscaped areas.
2. Repair of irrigation equipment shall be done with the originally specified materials or their approved equal.
3. A project applicant is encouraged to implement sustainable or environmentally-friendly practices for the overall landscape maintenance.

#### G. Certificate of Completion Package

1. The Certificate of Completion (Appendix E) shall include the following:
  - a. Submittal and Approval Dates of the Landscape Documentation Package and Submittal Date of the Water Efficient Landscape Worksheet
  - b. Project Name
  - c. Project Address and Location
  - d. Applicant Name, Telephone and Mailing Address
  - e. Property Owners Name, Telephone, and Mailing Address
2. Certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved Landscape Documentation Package.
3. Irrigation scheduling parameters used to set the controller. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.
4. Landscape and irrigation maintenance schedule.
5. Irrigation audit report.

6. Soil analysis report and documentation verifying implementation of soil report recommendations.
7. The project applicant shall:
  - a. Submit the signed Certificate of Completion to the local agency for review;
  - b. Ensure that copies of the approved Certificate of Completion package are submitted to the District, and property owner or their designee.
8. The local agency shall:
  - a. Receive the signed Certificate of Completion Package from the project applicant;
  - b. Approve or deny the Certificate of Completion Package. If the Certificate of Completion is denied, the local agency shall provide information to the project applicant regarding reapplication, appeal or other assistance.

#### H. Stormwater Management

1. Stormwater management practices minimize runoff and increase infiltration which recharges groundwater and improves water quality. Implementing stormwater best management practices into the landscape and grading design plans to minimize runoff and to increase on-site retention and infiltration are encouraged.
2. Project applicants shall refer to the District, the local agency, and/or Regional Water Quality Control Board for information on any applicable stormwater ordinances and stormwater management plans.
3. Rain gardens and other landscape features that increase rain water capture and infiltration are recommended.

#### I. Public Education

1. Public education is a critical component to promote the efficient use of water in landscapes. The use of appropriate principles of design, installation, management and maintenance that save water is encouraged in the community.
2. The District and the local agency shall provide information to residents regarding the design, installation, management and maintenance of water efficient landscapes.
3. All model homes that are landscaped shall display signs that provide information demonstrating the principles of water efficient landscapes described in this ordinance.
  - a. Signs shall be used to identify the model home as an example of a water efficient landscape.
  - b. Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes.

**0.00.050 Reporting**

- A. Local agencies shall submit reports to the Department of Water Resources on implementation and enforcement by January 31<sup>st</sup> of each year and address the following:
1. State whether you are adopting a single agency ordinance or a regional agency alliance ordinance, and the date of adoption or anticipated date of adoption.
  2. State the entity responsible for implementing ordinance.
  3. The reporting period shall be for the previous calendar year January 1 to December 31.
  4. State if using a locally modified Water Efficient Landscape Ordinance (WELO) or the MWELO. If using a locally modified WELO, describe how is it different than MWELO, is it at least as efficient as MWELO, and are there any exemptions specified?
  5. Provide the total number of new construction projects, as defined in Section 0.00.020, with construction initiated during the reporting period for:
    - (a) multifamily residential landscape projects;
    - (b) single-family residential landscape projects;
    - (c) non-residential landscape projects; and
    - (d) rehabilitated landscape projects.
  6. State the total landscape area (in square feet or acres) subject to the ordinance over the reporting period, if available.
  7. Describe enforcement measures.
  8. Describe actions taken to verify compliance:
    - (a) Is a plan check performed; is so, by what entity?
    - (b) Is a site inspection performed; if so, by what entity?
    - (c) Is a post-installation audit required; if so, by whom?
  9. Describe educational and other needs to properly apply the ordinance.
  10. Explain challenges to implementing and enforcing the ordinance.

**0.00.060 Review and Program Monitoring Fees**

- A. Review and Program Monitoring fees are deemed necessary to review Landscape Documentation Packages and monitor landscape irrigation audits and shall be imposed on the subject applicant, property owner or designee.
- B. A Landscape Documentation Package review fee will be due at the time of initial project application submission to the District.
- C. The Board of Directors, by resolution, shall establish the amount of the above fees in accordance with applicable law.

**0.00.070 Appeals**

- A. Appeal to General Manager-Chief Engineer. An applicant, property owner or designee of any applicable project may appeal decisions made by the Water Management Department or Service Director other than imposition of penalties (see Sections 0.00.080 – 0.00.100 regarding imposition of penalties) to the General Manager-Chief Engineer, in writing, within fifteen (15) days of notification of decision. The General Manager-Chief Engineer’s decision shall become final on the fifteenth (15<sup>th</sup>) day following service of written notification of said decision unless a timely appeal is filed pursuant to 0.00.070 B.
- B. Appeal to Board of Directors. An applicant, property owner or designee of any applicable project may appeal decisions made by the General Manager-Chief Engineer pursuant to Section 0.00.070 A. to the Board of Directors. Said appeal must be written and submitted to the Secretary of the Board of Directors within fifteen (15) days of the date of notification of the General Manager-Chief Engineer’s decision. The Board of Directors’ decision shall be final upon its adoption.

**0.00.080 Penalties**

- A. Violation of any part of Ordinance No. 1302.6 may result in any or all of the following penalties as may be imposed by the District or any other local agency with jurisdiction to take enforcement actions. The following penalties apply when enforcement action is taken by the District:
  1. Monetary. See Appendix F for schedule of monetary penalties.
  2. Termination of Service.
- B. Notice. The District shall issue a written notice of imposition of penalty. The notice shall set forth penalty imposed and the reason for imposition of it. The notice shall be served on the customer by registered or certified mail and shall advise that the customer may request review of the imposition of penalty by filing a written request for a hearing pursuant to the provision of Section 0.00.090.

**0.00.090 Hearing Regarding Penalties**

- A. Request for Hearing. Customers who have received notice of imposition of penalty may make a written request for a hearing. The District must receive the request for hearing no later than fifteen (15) days from the date of the notice of imposition of penalty. The request for hearing shall set forth, in detail, all facts supporting the request. Upon District’s receipt of a timely request for a hearing, imposition of penalty shall be stayed until the Statement of Decision after hearing becomes final, or, if the Statement of Decision is timely appealed, the Board of Directors’ order on appeal is adopted.
- B. Notice of Hearing. Within ten (10) days of the District’s receipt of the request for hearing, the District shall provide written notice to the customer of the date, time and place of the hearing. The hearing date shall be within thirty (30) days of the mailing of the notice of hearing, unless the parties agree, in writing, to a later date.

- C. Hearing. The General Manager-Chief Engineer, or his designee, shall act as the Hearing Officer. At the hearing, the customer shall have an opportunity to respond to the allegations set forth in the notice of imposition of penalty by producing written and/or oral evidence.
- D. Statement of Decision. Within ten (10) days following the hearing, the Hearing Officer shall prepare a written Statement of Decision, which shall set forth the facts upon which the decision is based. The Statement of Decision shall be served by personal delivery or registered or certified mail on the customer. The Statement of Decision shall become final on the sixteenth (16<sup>th</sup>) day after service on the customer unless a request for appeal is timely filed with the Board of Directors pursuant to Section 0.00.100.

**0.00.100 Appeal of Penalties**

- A. Request for Appeal. A customer may appeal a Statement of Decision by filing a written request for appeal with the Board of Directors before the date the Statement of Decision becomes final, i.e., no later than the fifteenth (15<sup>th</sup>) day following service of the Statement of Decision on the customer. The request for appeal shall set forth, in detail, all the issues in dispute and all facts supporting the request.
- B. Notice of Appeal Hearing. No later than thirty (30) days after receipt of the request for appeal, the Board of Directors shall set the matter for a hearing. Written notice of said hearing of appeal shall be served on the appellant by personal delivery or registered or certified mail. The hearing date shall be a date within thirty (30) days of service of the notice of hearing of appeal, unless the parties agree, in writing, to a later date. If the Board of Directors does not hear the appeal within the required time due to acts or omissions of the appellant, the Statement of Decision shall become final on the thirty-first (31<sup>st</sup>) day after service of notice of hearing of appeal on the customer.
- C. Determination and Order on Appeal. After the hearing of appeal, the Board of Directors shall issue an order affirming, modifying or reversing the General Manager-Chief Engineer's decision. The Board of Directors shall set forth its Determination and Order, in writing, and shall serve the Determination and Order to the customer by personal delivery or registered or certified mail within thirty (30) days following the hearing. The Determination and Order of the Board of Directors shall be final upon its adoption.

APPENDIX A

LANDSCAPE DOCUMENTATION PACKAGE CHECKLIST

Project Site: \_\_\_\_\_ Tract or Parcel Number:

\_\_\_\_\_

Project Assessor's Parcel Number (APN):

\_\_\_\_\_

Project Location:

\_\_\_\_\_

Landscape Architect/Irrigation Designer/Contractor and Name and Contact Information:

\_\_\_\_\_

Included in this Landscape Documentation Package are: (Check to indicate completion)

- \_\_\_ 1. Water Efficient Landscape Worksheet (Appendix B)  
WATER BUDGET CALCULATIONS (Appendix D)
- \_\_\_ 2. Maximum Applied Water Allowance (MAWA):
- Conventional Landscape: \_\_\_ 100 cubic feet/year  
+ Recreational Turf grass Landscape: \_\_\_ 100 cubic feet/year (if applicable)  
Maximum Applied Water Allowance: \_\_\_ 100 cubic feet/year
- \_\_\_ 3. Estimated Total Water Use by Hydrozone:  
Turf grass Hydrozones: \_\_\_ 100 cubic feet/year  
Recreational Turf grass Hydrozones: \_\_\_ 100 cubic feet/year  
Low Plant Hydrozones: \_\_\_ 100 cubic feet/year  
Medium Plant Hydrozones: \_\_\_ 100 cubic feet/year  
High Plant Hydrozones: \_\_\_ 100 cubic feet/year  
Water Features: \_\_\_ 100 cubic feet/year  
Other \_\_\_\_\_: \_\_\_ 100 cubic feet/year  
Estimated Total Water Use: \_\_\_ 100 cubic feet/year
- \_\_\_ 4. ETWU < MAWA  
PLAN SETS
- \_\_\_ 5. Landscape Design Plan
- \_\_\_ 6. Irrigation Design Plan
- \_\_\_ 7. Grading Design Plan
- \_\_\_ 8. Soil Management Report

I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package.

Date: \_\_\_\_\_ Applicant: \_\_\_\_\_

APPENDIX B

SAMPLE WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and is a required element of the Landscape Documentation Package.

PROJECT INFORMATION

Project Name		
Name of Project Applicant	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

SECTION A. HYDROZONE INFORMATION TABLE

Please complete the hydrozone table(s) for each irrigation point of connection. Use as many tables as necessary to provide the square footage of landscape area per valve.

Irrigation Point of Connection (P.O.C.) No. _____					
Controller No.	Valve Circuit No.	Plant Types(s)*	Irrigation Method**	Area (Sq. Ft.)	% of Landscape Area
<b>Total</b>					<b>100%</b>

**\*Plant Type**

- CST = Cool Season Turf
- WST = Warm Season Turf
- HW = High Water Use Plants
- MW = Moderate Water Use Plants
- LW = Low Water Use Plants

**\*\*Irrigation Method**

- MS = Microspray
- S = Spray
- R = Rotor
- B = Bubbler
- D = Drip
- O = Other

APPENDIX C  
ET PROFILE AND PLANT FACTORS

Zone #2 = ALL coves, upper and lower from Highway 111 South.

Monthly Eto (inches)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Inches	Total Feet
<b>Zone 2</b>	1.77	2.94	4.12	5.89	7.06	8.24	8.24	6.48	5.89	4.12	2.35	1.77	58.87	4.91
<b>Zone 3</b>	1.93	3.21	4.50	6.42	7.71	8.99	8.99	7.06	6.42	4.50	2.57	1.93	64.22	5.35
<b>Zone 4</b>	2.29	3.82	5.35	7.65	9.17	10.70	10.70	8.41	7.65	5.35	3.06	2.29	76.46	6.37
<b>Zone 5</b>	2.50	4.17	5.83	8.33	10.00	11.67	11.67	9.17	8.33	5.83	3.33	2.50	83.34	6.94
<b>Percent Annual ETo</b>	0.03	0.05	0.07	0.10	0.12	0.14	0.14	0.11	0.10	0.07	0.04	0.03		

Zone #3 = Moderate winds, minimum monthly shadows, some blowing dust and sand, upper valley predominant wind from northwest.

Zone #4 = Moderate winds, minimum monthly shadows, some blowing dust and sand lower valley has lower elevation and more summer southwest wind.

Zone #5 = Frequent strong northwest winds, heavy blowing dust and sand, typical of I-10 corridor.

Maximum Applied Water Allowance (CCF) =  $ETo \text{ (inches)} \times 0.45 \times \text{Area (Square feet)} \times 0.62 \div 748$

ET Adjustment Factor = 0.45

0.62= gallons per square foot per inch deep

CCF= 100 cubic feet = 1 billing unit= 748 gallons

Estimated Total Water Use (CCF) =  $\frac{ETo \text{ (Inches)} \times \text{Plant Factor} \times \text{Area (Square Feet)} \times 0.62 \div 748}{\text{Irrigation System Efficiency}}$

<u>Target Irrigation Efficiency</u>
0.80= Turf Rotor
0.75= Sprayheads
0.90= Drip/Micro/PC Bubblers

Emitters per Plant Estimate =  $\frac{\text{Area of Plant (square feet)} \times \text{Percent of Area to be Wet}}{\text{Square Feet Wet Per Emitter}}$

Soil Type	Inches Water Holding Capacity per Inch of Depth	Description
Very Coarse Sand	0.05	Typical of high on an alluvial fan
Blow Sand	0.07	Typical of mid valley ridge area
Fine Sand	0.10	Typical of low alluvial fans from Rancho Mirage to Indian Wells
Very Fine Silty Sand	0.15	Typical of lowest alluvial fans from La Quinta, Indio, Coachella
Silt Loam	0.17	Typical of lower valley agricultural areas located below sea level

Emitter Wetted Area Square Feet Each	Emitter Spacing
0.75 to 1.75	10"
1.75 to 3	18"
3 to 5	3'
5 to 10	4'
10 to 28	4.5'

APPENDIX C  
ET PROFILE AND PLANT FACTORS

Plant Factor (Kc)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
<b>Cool Turf 100% **</b>	1.00	1.00	NR	NR	NR	NR	NR	NR	NR	1.00	1.00	1.00	1.00
<b>Warm Turf 100%**</b>	NR	NR	NR	0.80	0.80	0.80	0.80	0.80	0.80	NR	NR	NR	0.80
<b>Cool Turf 80%*</b>	0.80	0.80	0.80	0.70	NR	NR	NR	NR	NR	0.80	0.80	0.80	0.79
<b>Warm Turf 60%*</b>	NR	NR	NR	0.60	0.60	0.60	0.60	0.60	0.60	0.60	NR	NR	0.60
<b>Combined TurfSav*</b>	0.80	0.80	0.80	0.60	0.60	0.60	0.60	0.60	0.60	0.70	0.80	0.80	0.70
<b>Tree/Shrub/GC L*</b>	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
<b>Tree/Shrub/GC L**</b>	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
<b>Tree/Shrub/GC M*</b>	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
<b>Tree/Shrub/GC M**</b>	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
<b>Tree/Shrub/GC H*</b>	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
<b>Tree/Shrub/GC H**</b>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<b>Open Water Factor</b>	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10

CombinedTurfSav = Combination of cool and warm season turf according to normal management in the Coachella Valley

\* = Normal irrigation level to maintain established planting

\*\* = Normal irrigation level during plant establishment

\*\*\* = Approximate evaporation. Reference, WULCOLS IV

GC = Groundcover

L = Low water use, Kc. 0.1 to 0.3

M = Moderate water use, Kc. 0.4 to 0.6

H = High water use, Kc. 0.7 to 0.9

NR = Not Recommended

APPENDIX D

SAMPLE CALCULATION/ESTIMATED TOTAL WATER USE (by Hydrozone)

Using the following formula from Appendix C:

- ETWU =  $(ET_o) \times (PF) \times (LA) \times (.62) / (748) / (IE)$
- ETWU = Estimated Water Use (hundred cubic feet)
- ET<sub>o</sub> = Reference Evapotranspiration (inches)  
[for period of estimate]
- PF = Plant Factor (K<sub>c</sub>)
- LA = Landscaped Area (in square feet)
- .62 = Conversion Factor (to gallons per square foot)
- 748 = Conversion Factor (to hundred cubic feet)
- IE = Irrigation System Efficiency

Project Site Example: Total landscaped area 60,000 square feet in Palm Desert near the intersection of Cook Street and Country Club Drive in Zone No. 2 (64.0" Annual ET<sub>o</sub>).

- 12,000 square feet of turf grass overseeded with rye grass in winter, irrigated with low angle rotor sprinklers.
- 32,700 square feet of "low" desert native plantings on drip irrigation.
- 15,300 square feet of "moderate" water using plantings on drip irrigation.

See Appendix C for formula factors. ET<sub>o</sub> is totaled for season. Turf grass plant factors are the average for the season and tree/shrub/groundcover plant factors are considered constant annually.

Plant Factors

Turf <u>Grass</u> 0.70	Low Native <u>Plants</u> 0.20	Moderate <u>Shrubs</u> 0.50
------------------------------	-------------------------------------	-----------------------------------

$$ETWU = [(ET_o) \times (PF) \times (LA) \times (.62) / (748)] / (IE) = CCF$$

$$\text{Overseeded Turf Grass: Season} = 64.0 \times 0.7 \times 12,000 \times 0.62 \div 748 \div 0.80 = 557 \text{ CCF}$$

$$\text{Seasonal Turf ETWU} = 557 \text{ CCF}$$

$$\text{"Low" Native Plants: Annual} = 64.0 \times 0.2 \times 32,700 \times 0.62 \div 748 \div 0.90 = 385 \text{ CCF}$$

$$\text{"Low" Native ETWU} = 385 \text{ CCF}$$

$$\text{"Moderate" Shrubs and Ground Cover: Annual} = 64.0 \times 0.5 \times 15,300 \times 0.62 \div 748 \div 0.90 = 451 \text{ CCF}$$

$$\text{"Moderate" ETWU} = 451 \text{ CCF}$$

$$\text{Project Total ETWU} = 1,393 \text{ CCF}$$

## APPENDIX D

### SAMPLE CALCULATION

#### Maximum Applied Water Allowance (MAWA)

Using the following formula:

$$\text{MAWA} = [(\text{ETo}) \times (0.45) \times (\text{LA}) \times (0.62)] / (748)$$

MAWA = Maximum Applied Water Allowance (CCF or hundred cubic feet)  
ETo = Reference Evapotranspiration (inches per year)  
0.45 = ET adjustment factor  
LA = Landscaped Area (square feet)  
0.62 = Conversion Factor (to gallons per square foot)  
748 = Conversion Factor (to hundred cubic feet)

Using the project for the Estimated Total Water Use example:

Landscaped area of 60,000 square feet in Palm Desert near the intersection of Cook Street and Country Club Drive in Zone No. 3 (64.0" Annual ETo).

$$\begin{aligned} \text{MAWA} &= 64.0 (\text{ETo}) \times (0.45) \times (\text{LA}) \times (0.62) \div (748) \\ &= [64.0(0.45) (60,000) (0.62)] / (748) \\ \text{MAWA} &= 1,432 \text{ CCF} \end{aligned}$$

ETWU total of 1,393CCF is < the MAWA of 1,432 CCF

APPENDIX E

SAMPLE CERTIFICATE OF COMPLETION

Project Name: \_\_\_\_\_

Parcel Map or Tract No.: \_\_\_\_\_ APN: \_\_\_\_\_

Project Location: \_\_\_\_\_

Maximum Applied Water Allowance (MAWA): \_\_\_\_\_ (in hundred cubic feet)

Estimated Annual Total Applied Water Use: \_\_\_\_\_ (in hundred cubic feet)

**Preliminary project documentation submitted** (initials indicate submittal)

- \_\_\_\_\_ 1. Grading design plan
- \_\_\_\_\_ 2. Landscape design plan
- \_\_\_\_\_ 3. Irrigation design plan
- \_\_\_\_\_ 4. Irrigation schedules

**Post Installation inspection** (initials indicate completion)

- \_\_\_\_\_ 1. Plants installed as specified
- \_\_\_\_\_ 2. Irrigation System installed as designed

Comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

A copy of this certification has been provided to the owner/developer, the local agency and to the District. I certify the work has been completed in accordance with District Ordinance 1302.6, Landscape and Irrigation System Design Criteria.

\_\_\_\_\_  
Landscape Architect/Designee Signature                      License No.                      Date

- 1. Date the Landscape Documentation Package was submitted to the Local Agency: \_\_\_\_\_
- 2. Date the Landscape Documentation Package was approved by the Local Agency: \_\_\_\_\_
- 3. Date a copy of the Water Efficient Landscape Worksheet (including the Water Budget Calculation) was submitted to the District: \_\_\_\_\_

## APPENDIX F

### SCHEDULE OF MONETARY PENALTIES

Any notice required for a violation under this Ordinance may include, for example and not by way of limitation, the following information: (i) the water conservation restrictions in effect; (ii) actions required for compliance to prevent future violations; and (iii) penalties and enforcement actions which may be imposed for future violations.

1. First Violation – Written notice allowing 30 days for a response with corrections.
2. Second Violation, or failure to respond within 30 days to prior violation, will result in a fine in the amount of \$50.00 which will be added to the customer's water service account or bill.
3. Third Violation, or failure to respond within 30 days to prior violation, will result in a fine in the amount of \$100.00 which will be added to the customer's water service account or bill.
4. Fourth Violation, or failure to respond within 30 days to prior violation, will result in a fine in the amount of \$200.00 which will be added to the customer's water service account or bill.
5. Fifth Violation, or failure to respond within 30 days to prior violation, will result in a fine in the amount of \$500.00 which will be added to the customer's water service account or bill.
6. Sixth Violation, or failure to respond within 30 days to prior violation, will result in a fine in the amount of \$1,000.00 which will be added to the customer's water service account or bill.
7. Seventh Violation, or failure to respond within 30 days to prior violation, will result in a fine in the amount of \$2,000.00 which will be added to the customer's water service account or bill.

In the event of any violation after the seventh violation within a twelve-month period, the General Manager, or his/her designee, may determine, in his/her reasonable discretion, that the continued violation of the provisions set forth in this Ordinance warrant the initiation of procedures for the termination of water service pursuant to CVWD's Regulations, as they may be amended from time to time. In addition to any other remedies provided in this Ordinance or available under applicable law, CVWD may alternatively seek injunctive relief in the Superior Court or take enforcement action, including discontinuing or appropriately limiting water service by the installation of a flow restricting device to any customer, for violations of this Ordinance. All remedies provided herein shall be cumulative and not exclusive.

## APPENDIX G

### Recycled Water Checklist

1. CVWD to obtain coverage under the State Water Resources Control Board's Order WQ 2016-0068-DDW for recycled water use by ensuring that the property to be irrigated by recycled water is covered under the Notice of Intent and Title 22 Engineer's Report submitted to the State Water Resources Control Board.
2. The customer is to submit a letter of intent for the use of nonpotable water.
3. The customer is to enter into an agreement with CVWD for receiving nonpotable water for golf course, landscape and/or agricultural irrigation. The agreement between discharger and CVWD must be provided to the Regional Board within 90 days of receiving coverage under the permit referenced above in item #1.
4. Landscape and Irrigation system plans must be submitted to CVWD and meet regulatory requirements of WQ 2016-0068-DDW or equivalent version of this permit, the State Board's Recycled Water Policy, and Department of Drinking Water (DDW) Statutes and Regulations related to recycled water, such as the Health and Safety Code, the Water Code, the Cross-Connection Control Policy Handbook and the District's Code. These requirements include but are not limited to the following:
  - a. Completion of the District's form titled "Nonpotable Water Plan Checklist" for dual plumbed sites. The Nonpotable Water Plan checklist is available on the district's website.
  - b. Participating in and assisting the District in investigations and tests that provide documentation to ensure that there is no cross-connection between the potable and recycled water systems.
  - c. Backflow protection assemblies shall be installed to protect the District's potable water supply. The type of backflow prevention assembly installed shall be consistent with § 3.2.2 and Appendix D of the Cross-Connection Control Policy Handbook, or as otherwise determined by the district after conducting a hazard assessment.
  - d. An air gap (AG) shall be provided at all domestic water service connections to recycled water use areas. A swivel-ell in combination with an upstream reduced pressure principle backflow prevention assembly (RP) may be used instead of an air gap (AG), subject to district approval and the criteria established in § 3.3.2 and Appendix C of the Cross-Connection Control Policy Handbook. The swivel-ell shall only be operated by the district.

- e. The required separation distance between recycled water lines and impoundments and application area; and domestic wells and water lines is maintained and approved by DDW.
  - f. The design of the irrigation system shall not cause the occurrence of ponding anywhere in the reuse area, and overspray or mist around dwellings, outdoor eating areas and/or food handling facilities is eliminated. Irrigation runoff shall be confined to the recycled water use area unless authorized by DDW.
  - g. Drinking fountains will be protected from spray, mist or runoff by use of a drinking fountain cover or shelter approved for this purpose.
  - h. Hose bibs are not allowed on portions of the recycled water systems accessible to the general public. Quick couplers that differ from those used on the potable water system are allowed.
  - i. Signs are posted in areas that the public has access to that are no less than 4 inches high by 8 inches wide and include “RECYCLED WATER—DO NOT DRINK” and the international do not drink symbol as indicated in CCR Title 22 Division 4 Chapter 3 Article 4 Section as figure 60310-A. The number and locations of these signs will be approved by CDPH.
  - j. The recycled water irrigation system is able to be operated during a time of day that will minimize contact with the public.
  - k. All pipes installed above or below ground on or after June 1, 1993 designed to carry recycled water are to be colored purple or wrapped in purple tape.
  - l. Golf course pump houses utilizing recycled water are appropriately tagged with warning signs with proper wording of sufficient size to warn the public that recycled water is not safe for drinking. All new and replacement at grade valve boxes shall be purple or appropriately tagged for water reuse purposes. All other appurtenances and equipment used for recycled water must be identified as used for recycled water distribution per the recommendations of CDPH.
5. Prior to construction, landscape and irrigation system plans must be submitted for approval to the following agencies (please allow for a 30 day comment period):
    - a. Regional Board Water Quality Control Board,
    - b. Department of Drinking Water (DDW), and
    - c. CVWD.
  6. Upon approval from the Regional Board and DDW, the discharger shall provide notification that recycled water will be used for irrigation to people who reside adjacent to the recycled water use area and to golf course patrons through a method approved by the Regional Board’s Executive Officer and DDW at least 30 days prior to use of recycled water.

7. A Use Site Supervisor must be designated and his or her name and contact information must be provided in writing to CVWD and the Regional Board 30 days prior to discharge of recycled water. This person will be available to be contacted and receive periodic education and training on the uses and restrictions of recycled water.
8. A cross-connection control test will be performed on the irrigation and domestic systems by CVWD prior to the discharge of recycled water and at least once every four years thereafter. This test is to be conducted by an American Water Works Association (AWWA) certified cross-connection control program specialist or equivalent. The results of these tests are to be submitted to CVWD, DDW, and the Regional Board within 30 days of test completion.
9. “As-Built” plans and specifications showing the domestic and irrigation systems, location of all potable and recycled water connections and location of all on-site and nearby wells to DDW, as per the DDW requested time frame.

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## APPENDIX H

### Prescriptive Compliance Option

- (a) This appendix contains prescriptive requirements which may be used as a compliance option to Ordinance 1302.6, Landscape and Irrigation Design Criteria.
- (b) Compliance with the following items is mandatory and must be documented on a landscape plan in order to use the prescriptive compliance option:
  - (1) Submit a Landscape Documentation Package which includes the following elements:
    - i. Date
    - ii. Project applicant
    - iii. Assessor's Parcel Number (project address if available)
    - iv. Total landscape area (square feet), including a breakdown of turf and plant material
    - v. Project type (e.g., new, rehabilitated, single-family residential, home-owner installed)
    - vi. Water supply type (e.g., potable, recycled, well)
    - vii. Applicant signature and date with statement, "I agree to comply with the requirements of the prescriptive compliance option of Ordinance 1302.6".
  - (2) Plant material shall comply with all of the following:
    - i. Install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles.
    - ii. A minimum three inch (3") layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.
  - (3) Turf shall comply with all of the following:
    - i. Turf shall not exceed 25% of the landscape areas;
    - ii. Turf shall not be planted on sloped areas which exceed a slope of 1 foot vertical elevation change for every 4 feet of horizontal length;
    - iii. Turf is prohibited in areas less than 10 feet wide.
  - (4) Irrigation systems shall comply with the following:
    - i. Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data and utilize a rain sensor.
    - ii. Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.
    - iii. Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.

- iv. Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply.
  - v. All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard," All sprinkler heads installed in the landscape must document a distribution uniformity low quarter
  - vi. Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.
- (5) Prior to final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.

DRAFT

Ordinance to be effective on [DATE].

PASSED AND ADOPTED by the Board of Directors of the Coachella Valley Water District,  
County of Riverside, State of California, this ##th day of Month YEAR by the following roll call  
vote:

AYES:

NOES:

ABSENT:

ATTEST:

---

Sylvia Bermudez, CMC Clerk of the Board  
Coachella Valley Water District

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John P. Powell, President  
Coachella Valley Water District

## **ITEM 7C**

# Coachella Valley Association of Governments Energy & Sustainability Committee

May 8, 2025



## **STAFF REPORT**

**Subject:** CVAG Staffing of the Coachella Valley Power Agency Joint Powers Authority

**Contact:** Emmanuel Martinez, Program Manager- External Affairs ([emartinez@cvaq.org](mailto:emartinez@cvaq.org))

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**Recommendation:** Conditional on guidance from the Coachella Valley Power Agency (CVPA), authorize the Chair and/or Executive Director to finalize and execute a staffing agreement for CVAG to administer the CVPA

**Administrative/ Personnel Committee:** Concurred (Meeting on April 28)

**Background:** For decades, addressing Coachella Valley representation on electrical service matters related to the Imperial Irrigation District (IID) has been a top priority. The 99-year Agreement between Coachella Valley Water District and IID, making IID the electrical service provider for the greater CV is set to expire on December 31, 2032. The looming expiration of the Agreement has raised concerns about representation on electrical service matters, including meeting the current and future electrical infrastructure needs of the communities served by IID.

In September 2024, the CVAG Executive Committee authorized the Executive Director to continue support of IID's Coachella Valley Energy Commission and the process for investments and planning of electrical service in Coachella Valley, including but not limited to developing a new joint powers authority and creating a potential staffing agreement with CVAG. As detailed below, there has been substantial movement among local agencies to create this joint powers authority, called the Coachella Valley Power Agency (CVPA). In anticipation of this milestone, and with consideration to CVAG's meeting schedules, CVAG staff is recommending the CVAG Executive Director and/or Chair be authorized to execute an agreement with CVPA should it move forward with a staffing arrangement with CVAG.

The CVPA Joint Powers Authority (JPA) would have a board made up of representatives from the stakeholder entities with voting power. A minimum of three agencies are required to join the CVPA JPA for it to be effectively operational. On March 18, 2025, the City of La Quinta unanimously approved the CVPA JPA agreement. Additionally, the County of Riverside and the City of Indio are scheduled to consider approving the agreement on May 6 and May 7 meetings, respectively. This will meet the minimum initial members requirement, allowing for establishing the CVPA JPA and facilitating moving forward with operationalizing the new agency.

The idea of the CVPA stemmed from the Coachella Valley Energy Commission (CVEC), which IID had led. It was comprised of stakeholder entities including Riverside County, the Cities of La Quinta, Indio and Coachella, Palm Desert, Rancho Mirage and Indian Wells, and impacted Tribal Nations, to determine the energy needs beyond 2032 for the Coachella Valley areas served by IID. After three years of meetings and study sessions that included lengthy

discussions and input from a consultant, CVEC members moved ahead with the formation of the CVPA JPA. A resolution endorsing the draft CVPA JPA was presented and approved by CVEC on December 12, 2024. As part of the resolution, CVEC recognized the collaboration between IID and Coachella Valley stakeholders to reach a mutually agreeable governance solution.

The CVEC resolution adopted in December also recognized CVAG as the entity with the capability to initially create, operate, administer and manage the CVPA JPA. CVAG staff currently manage three JPAs: CVAG, the Coachella Valley Conservation Commission (CVCC) and Desert Community Energy (DCE).

This JPA is a starting point in establishing the CVPA, an independent public agency, in order to give stakeholders the authority they have long sought with regard to electrical service. Each member party would have the ability to exercise powers to promote, develop, conduct, operate, and manage energy generation and distribution in the eastern Coachella Valley toward achieving reliable, cost-effective public power.

The CVPA JPA provides the ability for the following members to join:

- Augustine Band of Cahuilla Indians
- Cabazon Band of Cahuilla Indians
- City of Coachella
- Coachella Valley Water District
- City of Indio
- City of Indian Wells
- City of La Quinta
- City of Palm Desert
- City of Rancho Mirage
- County of Riverside
- Torres Martinez Desert Cahuilla Indians
- Twenty-Nine Palms of Mission Indians

At the May meeting of the Energy & Sustainability Committee, CVAG staff will provide an update on the expected votes by the County of Riverside and City of Indio. Both of these votes are scheduled prior to the CVAG meeting agenda's finalization but before the Committee meeting.

To implement the CVPA JPA, there will be an administrative agreement between the CVPA JPA and CVAG. This staffing agreement, which is attached to this staff report, is similar to the staffing arrangement that CVAG already has for CVCC and DCE. Those staffing agreements allow CVAG to be reimbursed for staff time, administrative costs and overhead related to the specific agency. It has proven to be a successful model, as it eliminates the need for each JPA to have its own dedicated staff and benefit from economies of scale related to legal, auditing, and other support that are pooled across the agencies. The Agreement between CVAG and the new CVPA JPA provides for CVAG to administer the program to get the CVPA off the ground, for a period of up to five years. Currently, staff time and administrative costs to initiate the CVPA JPA is covered by a Memorandum of Understanding with IID.

Additionally, once the CVPA JPA is formed, it will coordinate an agreement between IID and the CVPA JPA, defining the responsibilities of each entity. Funding for CVPA JPA operations, programs, and projects may be derived from multiple sources including but not limited to

member assessments, borrowing and/or issuance of debt, grants, surcharges on retail electric rates in affected jurisdictions, development impact fees, or other sources which may be available to the CVPA JPA now or in the future.

CVAG staff provided this draft agreement to the Administrative/ Personnel Committee when it met on April 28. It will go to the CVAG Executive Committee in June.

**Fiscal Analysis:** The Agreement allows CVAG to invoice CVPA JPA based upon actual staff time spent plus allocated overhead rates not to exceed the rates paid by CVAG. These are charged at rates not to exceed rates incurred by CVAG and at the same rates paid by other joint powers agencies staffed by CVAG (CVCC and DCE). The CVPA board will determine a budget and staffing needs for the implementation and management services to be provided by CVAG. The total costs allowed under the agreement will mirror the fiscal year budget that is approved by CVPA and CVAG as part of the annual budgeting process or under a separate authorization that is approved by both agencies.

In anticipation of this new JPA, CVAG's Fiscal Year 2025-26 budget will incorporate some administrative costs, organizational changes and staff time under its Energy and Sustainability Department.

**Attachment:** Draft CVAG-CVPA JPA Implementation and Management Services Agreement

# **AGREEMENT**

**between**

**THE COACHELLA VALLEY POWER AGENCY  
and  
THE COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS**

**for  
ADMINISTRATION OF THE  
COACHELLA VALLEY POWER AGENCY JOINT POWERS AUTHORITY**

THIS AGREEMENT is made and effective as of (DATE), between the Coachella Valley Power Agency ("CVPA") and the Coachella Valley Association of Governments ("CVAG").

WHEREAS, the Coachella Valley Power Agency (CVPA) desires to contract with CVAG for the administration of the CVPA JPA and the parties now desire to continue with that arrangement;

WHEREAS, the Executive Director of CVAG serves as the Executive Director of CVPA and utilizes CVAG staff and facilities as necessary to administer the CVPA JPA consistent with the Duties and Responsibilities of the CVPA Executive Director as set by the CVPA Board of Directors;

NOW, THEREFORE, CVPA and CVAG agree to the following terms with respect to compensation to be paid by CVPA to CVAG for the administration of the CVPA JPA.

1. **TERM OF AGREEMENT**

This Agreement shall commence on XXXXX date of 2025 and be effective for a five-year term through XXXXX date of 2030, and only upon execution by both CVAG and CVPA. This Agreement shall continue thereafter for successive five-year terms without further action by either party. This Agreement may be terminated at any time by either party giving the other party six (6) months prior written notice.

2. **SERVICES**

CVAG shall perform the tasks described and set forth by the CVPA Board pursuant to the CVPA JPA Agreement.

The parties acknowledge that the costs incurred for any land acquisition, electrical infrastructure, and associated equipment, materials, and consulting services authorized by the CVPA Board are not included in the compensation to be paid to CVAG. Said services shall be secured by direct contract with CVPA or by subcontract, upon CVPA's written approval.

3. **PAYMENT**

(a) CVPA agrees to pay CVAG based upon actual staff time and benefits spent at rates not to exceed rates incurred by CVAG and at the same rates paid by other joint powers agencies staffed by CVAG. These costs shall include recovery of overhead costs based on a proportional share of actual payroll expenditures for CVAG staff involved in any of the CVPA's

programs; and shall include reimbursement to CVAG for non-employee costs incurred by CVAG while performing services hereunder, which may include, but not limited to, supplies, legal services, consultant services, equipment, Board meeting attendance stipends and staff expense reimbursements. In any fiscal year, the total to be paid hereunder shall not exceed the sum included in CVAG's adopted budget specific to CVPA and shall be determined prior to the start of each fiscal year and shall be approved by CVPA and CVAG as part of the annual budget process unless otherwise authorized by both agencies' governing bodies.

(b) CVAG shall invoice CVPA for payment no more frequently than monthly but at least quarterly for actual work performed.

(c) CVPA acknowledges that rates for CVAG staff are set, and may be adjusted, by the CVAG General Assembly.

(d) All direct costs billed must be specifically identified.

(e) Payment by CVPA to CVAG shall be made within thirty (30) days of receipt of each invoice.

#### 4. OWNERSHIP OF DOCUMENTS

Upon completion of this Agreement, all original documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared in the course of providing the services to be performed pursuant to this Agreement shall be delivered to CVPA and may be used, reused, or otherwise disposed of by CVPA without the permission of CVAG. CVAG may retain a copy of any such materials for use by CVAG.

#### 5. INDEMNIFICATION FOR PROFESSIONAL LIABILITY

To the fullest extent permitted by law, CVAG shall indemnify, protect, defend and hold harmless CVPA and any and all of its officials, employees and agents from and against any and all losses, liabilities, damages, costs and expenses, including attorney's fees and costs which arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of CVAG.

#### 6. INSURANCE

CVAG shall maintain prior to the beginning of and for the duration of this Agreement general liability and motor vehicle coverage through the California Joint Powers Insurance Authority. CVAG shall at all times provide workers' compensation benefits for its employees.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed the day and year first above written.

COACHELLA VALLEY POWER AGENCY

By: \_\_\_\_\_  
Chair of the CVPA

COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS

By: \_\_\_\_\_  
Chair of CVAG

APPROVED AS TO FORM:

\_\_\_\_\_  
Nicholaus Norvell, CVAG General Counsel

## **ITEM 7D**

**Coachella Valley Association of Governments  
Energy & Sustainability Committee  
May 8, 2025**



### **STAFF REPORT**

**Subject:** Inland Regional Energy Network's 2024 Annual Report

**Contact:** Jacob Alvarez, Program Manager ([jalvarez@cvaq.org](mailto:jalvarez@cvaq.org))

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#### **Recommendation: Information**

**Background:** CVAG is collaborating with Western Riverside Council of Governments (WRCOG) and San Bernardino Council of Governments (SBCOG) on a joint Regional Energy Network, known as Inland Regional Energy Network (I-REN). I-REN is governed by an Executive Committee, with CVAG's votes represented by the Energy & Sustainability Committee Chair, or Vice Chair as needed. CVAG's voting member is currently serving as the I-REN Executive Committee Chair.

The California Public Utilities Commission (CPUC) mandates that all Energy Efficiency Program Administrators (PA), including Renewable Energy Networks (RENs), submit an Annual Report each spring. These reports serve a dual purpose: They look back at the achievements of the previous year and provide a forward-looking perspective by outlining plans for the upcoming year. The 2024 Annual Report is I-REN's third Annual Report submittal, having previously submitted for calendar years 2022 and 2023.

In April 2025, I-REN submitted its 2024 Annual Report and presented it to the I-REN Executive Committee. I-REN's 2024 Annual Report highlights a year of significant milestones and growth. Building on the launch of select quick-start activities in late 2023, I-REN experienced increased participation across its programs in their first full year of operation. Simultaneously, I-REN initiated additional program activities in close collaboration with local, regional and statewide stakeholders.

As envisioned in its Business Plan, I-REN's portfolio is now generating tangible public interest benefits throughout the Inland Empire while simultaneously increasing equitable access to energy efficiency. The report includes the following highlights:

- The Fellowship workforce initiative provides job opportunities and energy education, increasing local agencies' capacity for energy efficiency. As also noted in an update to CVAG's Energy & Sustainability Committee in April, I-REN Fellows are directly supporting 26 public sector projects.
- The first I-REN Public Sector Normalized Metered Energy Consumption (NMEC) project, completed in 2024, will deliver energy and bill savings for public facilities serving equity communities, and all projects in the Public Sector pipeline serve these equity communities, as did 2024 energy road mapping and benchmarking services.
- I-REN is leading equitable energy code training. This includes hosting the state's first REN-led, no-cost, multilingual technical training in Spanish on air conditioning and heat pumps for public and private sector building professionals

I-REN values community and stakeholder input and increased engagement in the past year via roundtables, working groups, and energy forums across all sectors to guide its program design and operations.

The following key achievements by I-REN's programs and many other performance metrics are presented in the 2024 Annual Report:

- Public Sector
  - More than 50 agencies leveraged Public Sector program offerings
  - More than 70 attendees participated in I-REN's first Public Sector Working Group
  - \$1.8 million in funding secured for agencies by I-REN
  - Projects in the development pipeline are estimated to produce \$8.5 million in utility bill savings
- Codes & Standards Sector (which is led by CVAG staff)
  - 13 energy code trainings offered with 214 attendees
  - 157 training attendees awarded continuing education unit certificates
  - 60 percent increase in training registrants from 2023
  - First REN to offer a Spanish language energy code training
  - Two regional energy code forums hosted
- Workforce Education & Training Sector
  - 147 partnerships supporting energy efficiency
  - 14 Fellows placed at agencies to support energy efficiency and resiliency projects
  - Workforce assessment completed to inform future program activities

When it comes to the impact for CVAG's member agencies, the Cities of Indian Wells, Palm Desert, Palm Springs, and Rancho Mirage have pinpointed nine public projects aimed at boosting energy efficiency. These initiatives span various municipal facilities, including city halls, fire stations, a public works facility, a library, and a golf resort. CVAG staff continues to work with the local staffs to move the projects forward. With a total estimated cost of \$828,000, the projects will be supported by a \$330,000 incentive from I-REN, covering roughly 40 percent of the expenses. Furthermore, these four cities stand to see an estimated \$115,000 in shared annual savings on their utility bills.

The 2024 program saw substantial growth, placing 14 Fellows in 12 agencies starting in September, including one with the City of Palm Springs and one with CVAG. The WE&T team facilitated professional development through six energy efficiency excursions and various events, managed partly by a WRCOG Fellow. This provided Fellows with valuable experience in energy efficiency and public agency operations (budgeting, planning, issue management), while host agencies received free program support.

I-REN will join the other Program Administrators in presenting its Annual Report at the California Energy Efficiency Coordinating Committee's Portfolio Performance Report Review Meeting in August 2025.

**Fiscal Analysis:** There is no additional cost to CVAG for these items. Staff time dedicated to I-REN and the costs of the services of consultants are covered through the I-REN budget.

**Attachment:** 2024 I-REN Annual Report



# 2024 | Annual Report





## Your Local Champion for Equitable Access to Energy Resources

Our mission is to build a stronger clean energy economy and community throughout California's Inland Empire by connecting residents, businesses, and local governments to a wide range of energy efficiency resources. Together, we will empower local governments to practice energy efficiency; support workforce education and training in our region; and enable code compliance in the building industry.

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# 01. — Executive Summary



# I-REN Overview

The Inland Regional Energy Network (I-REN) is a consortium of the Coachella Valley Association of Governments (CVAG), San Bernardino Council of Governments (SBCOG), and Western Riverside Council of Governments (WRCOG) that serve the counties of Riverside and San Bernardino. These partners initially began collaborating in 2019 with a shared vision to establish locally administered, designed, and delivered energy efficiency (EE) programs.

Historically, the Inland Empire has faced challenges in receiving equitable opportunities to participate in EE and advanced energy. As dedicated representatives of local government, the I-REN consortium members bring established connections from their work serving this region to support filling gaps in existing EE services. The establishment of a Regional Energy Network (REN) in the Inland Empire region offers equitable opportunities for ratepayers in these communities to be engaged and active participants in meeting California’s EE goals.

In February 2021, I-REN applied for REN portfolio administrator (PA) status to offer a portfolio of programs serving the Public Sector, Codes & Standards (C&S), and Workforce Education & Training (WE&T), with governance from WRCOG as the administrative lead agency, as well as SBCOG and CVAG. I-REN was authorized by the California Public Utilities Commission (CPUC or Commission) in Decision (D.) 21-11-013 Approval of Inland Regional Energy Network Energy Efficiency Business Plan, which funded I-REN to offer EE services through program year 2027.

As directed in D.21-11-013, I-REN plans to make a new portfolio filing in 2026 along with other PAs for program year 2028 and beyond.



## 2024: Driving Equitable EE and Resiliency in the Inland Empire

2024 was a year of significant milestones and growth across I-REN's portfolio. After launching select quick-start activities in the latter half of 2023, I-REN embarked on its first full year of those programs' operations in 2024 and saw participation increase across its portfolio. In parallel, I-REN initiated other program activities in close coordination with local, regional, and statewide stakeholders.

*As envisioned in its Business Plan, I-REN's portfolio is now delivering tangible, cross-cutting public interest impacts and increasing equitable access to EE in the Inland Empire region.*

- I-REN's Energy Fellowship workforce initiative provides **job opportunities and experiential energy education** to participants who are placed at local jurisdictions to support energy projects. By funding the Energy Fellows, I-REN has **increased local agencies' capacity** to pursue energy efficiency, and I-REN's public sector pipeline now has **26 projects in progress where I-REN Energy Fellows have direct involvement** in supporting project completion.
- The first I-REN public sector Normalized Metered Energy Consumption (NMEC) project completed construction in 2024 and is set to deliver **energy and bill savings for public facilities serving equity communities**. All projects in the I-REN public sector pipeline serve equity communities, and energy roadmapping and benchmarking services provided in 2024 were for **100% equity community-serving public facilities**.
- I-REN is leading the way with equitable Energy Code training for public sector and private sector building professionals, having hosted **the state's first REN-led, no-cost, multilingual technical training on the Energy Code**—a four-part module on air conditioning and heat pumps in Spanish.

I-REN continues to be guided by input from its communities and stakeholders. In the past year I-REN further expanded opportunities for community and industry input to its program designs and operations by convening stakeholders in all sectors of its portfolio through roundtables, working groups, energy forums, and more.

In 2024 I-REN also coordinated closely with its Fellow PAs to fulfill regulatory obligations as well as to enhance program offerings and ensure judicious use of ratepayer funds. When the Commission approved portfolios in D.23-06-055, it ordered that the PAs work together to examine various topics and submit joint advice letters. I-REN has been a diligent contributor to those efforts, embracing the opportunity to work collaboratively with Fellow PAs and advocate for equity and the value that RENs bring to the EE landscape. I-REN also worked closely with Fellow PAs in the region to avoid program overlap and to collaborate in ways that bring added value to participants.

Going into 2025, I-REN is continuing to expand program activities and deliver tangible benefits for not only program participants but also the region as a whole. While driving outcomes in its current portfolio, I-REN will also look to the future. I-REN's 2028–2035 portfolio application will be developed using insights gained from early program implementation, along with feedback from stakeholders regarding the energy efficiency and resilience needs of the Inland Empire.

# I-REN Accomplishments

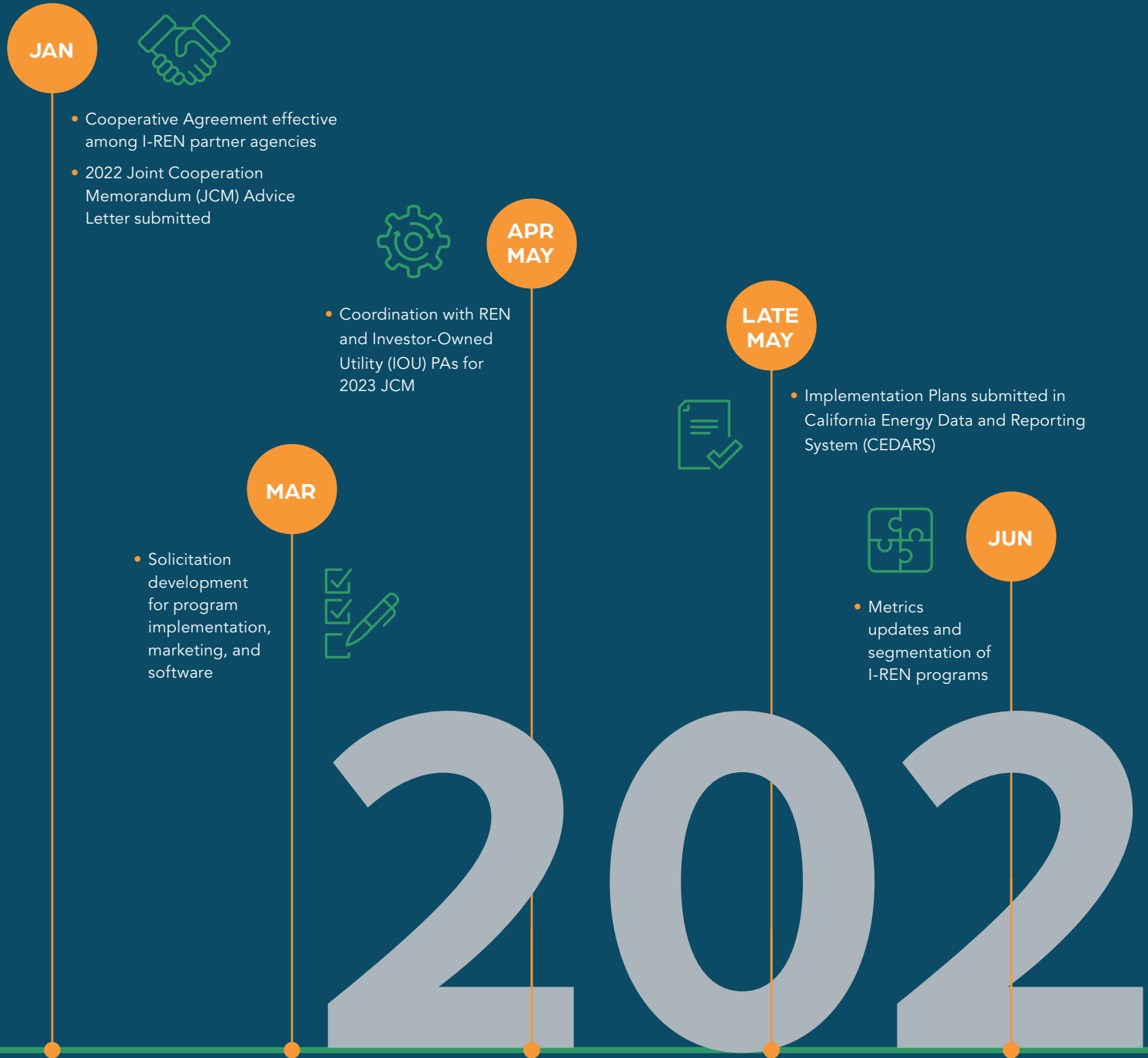
## From Business Plan Approval to Present



- Business Plan approved in D.21-11-013
- Building I-REN contacts list for local governments, tribes, and other stakeholders
- Began working with SoCalGas on Program Agreement
- Memorandum of Agreement (MOA) and I-REN Governance and Operations Rules in development between I-REN partner agencies

# 2021

# I-REN Accomplishments





JUL  
AUG

- Metrics Advice Letter filed and accepted by CPUC



AUG



- Implementer and vendor solicitations released
- Collaboration with PAs and presentation at CPUC PA Coordination Workshop

AUG  
SEPT



- Response to Energy Division REN Metrics data request
- California Energy Efficiency Coordinating Committee (CAEECC) Equity and Market Support Metrics Working Group Participation

OCT  
NOV



- REN Performance Metrics stakeholder meetings

NOV



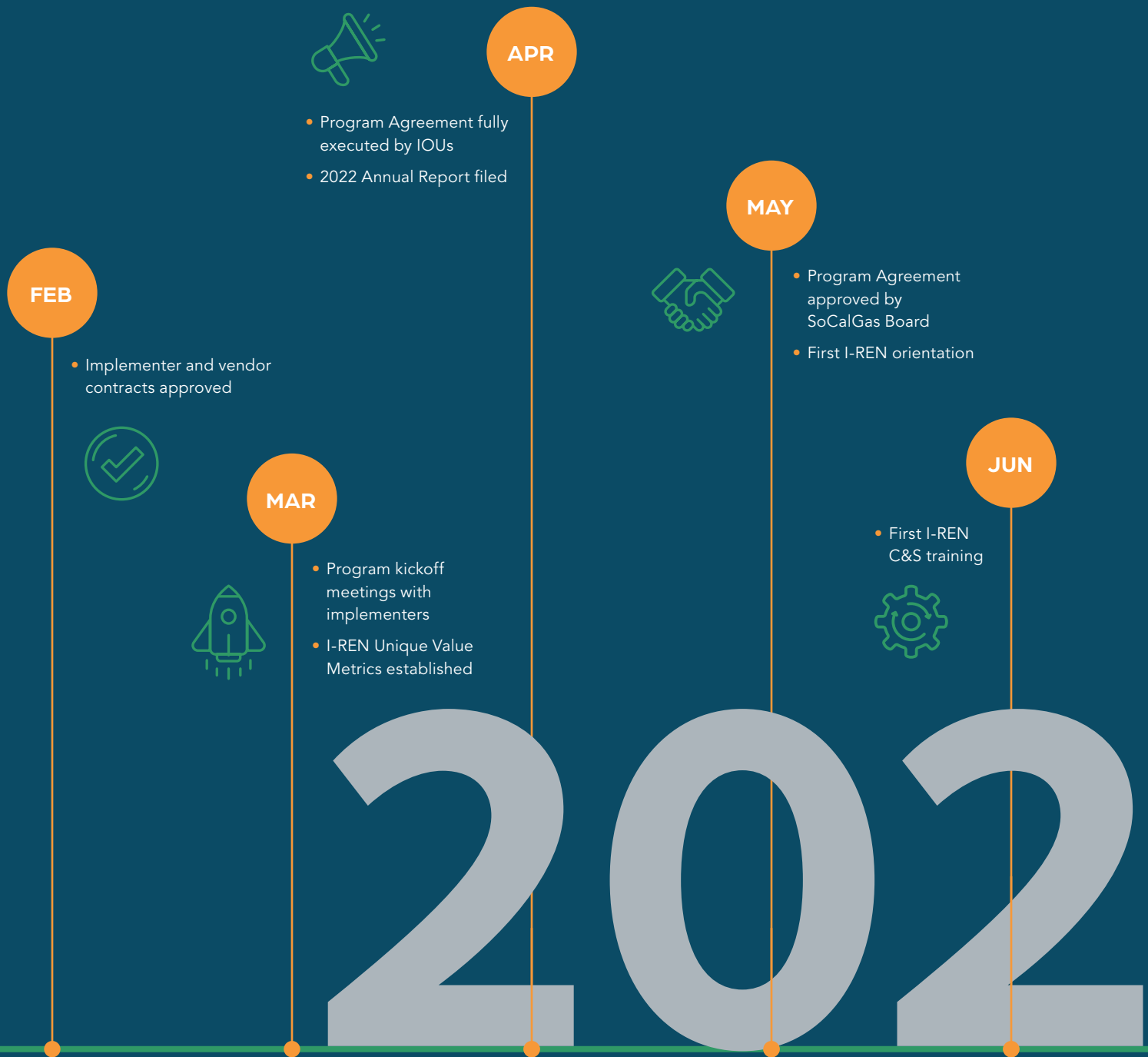
- Budget filing in CEDARS
- Bidder interviews for implementers and vendors
- Organizational strategic planning begins

DEC



- First I-REN Executive Committee Meeting
- Selection of implementers for contract negotiations
- Program Agreement finalized by Council of Government (COG) partners and routed to SoCalGas/Southern California Edison (SCE)

# I-REN Accomplishments



# 3

AUG



- I-REN Evaluability Assessment begins

OCT



- 2024–2027 True-Up Advice Letter submitted
- Monthly check-in meeting established with CPUC ED staff

NOV



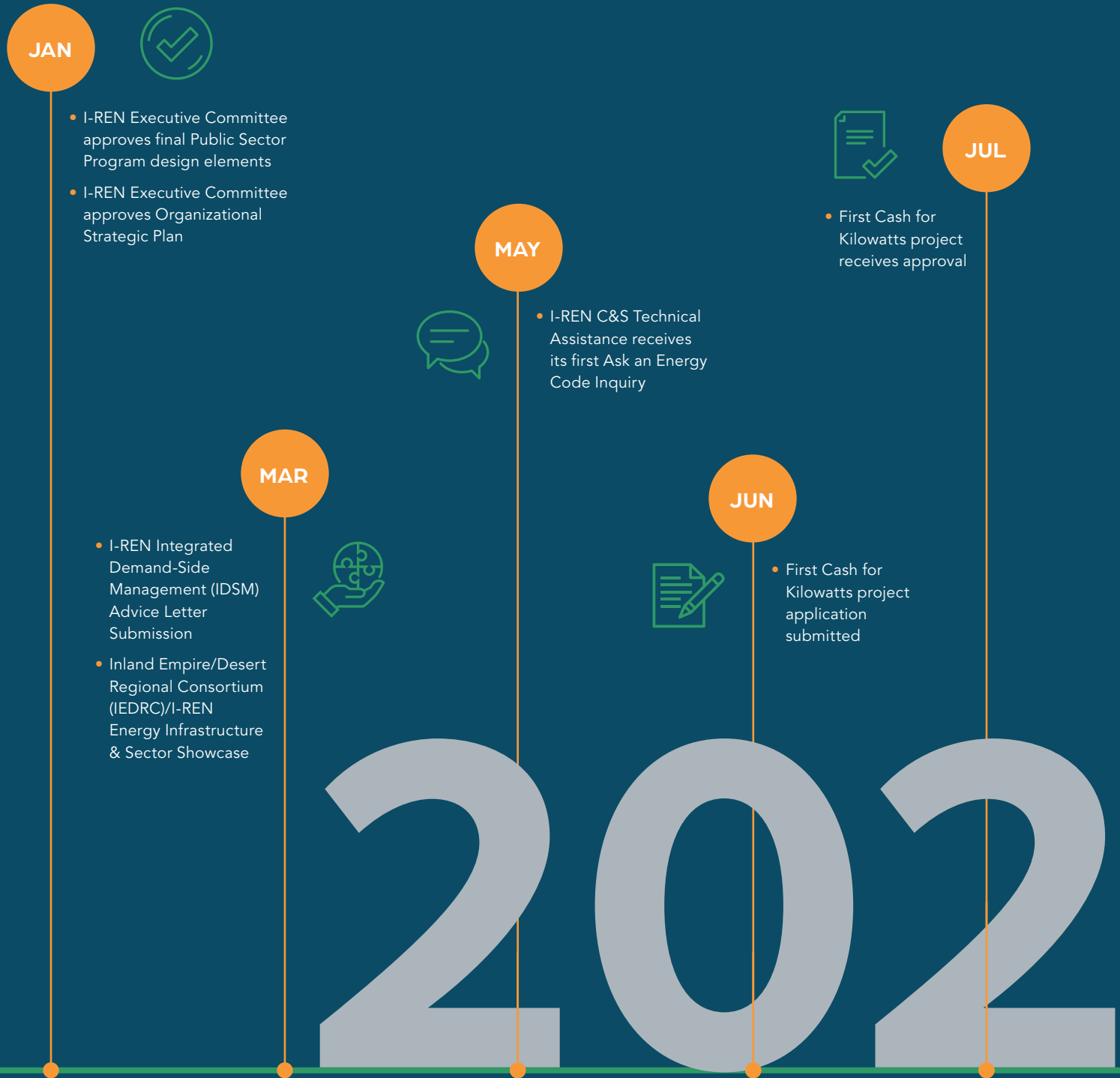
- CAEECC Equity and Market Support Working Group convenes

DEC

- Coordination with PAs for Common Metrics review



# I-REN Accomplishments



AUG



- I-REN presents a poster on its Public Sector Programs at the American Council for an Energy-Efficient Economy (ACEEE) 2024 Summer Study on Energy Efficiency in Buildings

SEPT



- I-REN hosts first Public Sector Working Group
- I-REN hosts the first of its Quarterly Workforce Roundtables
- I-REN Energy Fellowship Program Cycle 2024–2025 begins with 14 Energy Fellows placed at 12 public sector agencies

NOV

- I-REN C&S Technical Assistance develops and publishes its first two permit guides available on I-REN's website



DEC



- First Cash for Kilowatts project completes construction
- I-REN convenes the second Quarterly Workforce Roundtables
- Draft I-REN Energy Workforce Gaps Assessment developed
- I-REN hosts first Regional Energy and Climate Hub (REACH) Inland Empire forum, led by the California Climate and Energy Collaborative (CCEC) and the Strategic Growth Council





## Public Sector Summary

I-REN’s Public Sector Programs help public agencies complete energy efficiency projects.

I-REN offers a comprehensive suite of no-cost services and support, from project identification to completion, including cash incentives. I-REN helps identify energy-saving measures and then works alongside agency staff to fund and install them. In 2024, I-REN’s Public Sector Programs received final approval from its Executive Committee on various program design elements, which paved the way for full program service delivery. I-REN focused on regional engagement and marketing campaigns to spread the word about programs and services. More than 50 agencies leveraged Public Sector Program offerings in 2024, and more than 70 attendees participated in I-REN’s first Public Sector Working Group. I-REN helped agencies benchmark over 4.8 million square feet in 2024 through its strategic energy planning offerings, including the Building Upgrade Concierge. Through its Energy Efficiency and Conservation Block Grant (EECBG) initiative, I-REN helped agencies secure over \$1.8 million in funding. I-REN also conducted audits at 44 facilities and saw construction completion of its first Cash for Kilowatts project. In alignment with equity program objectives, the majority of agencies served by I-REN’s Public Sector Programs were equity communities.

***Additionally, 100% of facilities benchmarked, 100% of energy audits performed, and 100% of savings achieved were in underserved and/or hard-to-reach (HTR) communities.***

In 2025, I-REN will focus on continued outreach and engagement with new agencies in the region; education and celebrations of success; and turning identified projects into tangible results throughout the I-REN territory, with a priority on equity communities.

50+

Agencies leveraged  
Public Sector Program  
offerings

70+

Attendees participated in  
I-REN’s first Public Sector  
Working Group

\$1.8M

Funding for agencies  
secured by I-REN



## Codes & Standards Summary

I-REN’s Codes & Standards (C&S) Programs provide training and technical support to increase understanding of the building Energy Code, with services tailored for public and private sector building professionals.

The I-REN C&S Training and Education Program offered 13 trainings and two forums in 2024. I-REN became the state’s first REN to offer a C&S training series in Spanish, part of the C&S training program’s efforts to reach more equity participants. In accordance with the results of 2023’s Market Assessment Survey, I-REN introduced new training topics in 2024, including Accessory Dwelling Units, Solar PV & Battery, and Single-family Lighting. I-REN also extended its trainer base through collaboration with SCE and Energy Code Ace, and deepened its relationship with the California Energy Commission (CEC), which led two trainings in partnership with I-REN. I-REN plans to continue expanding its trainer base and training topics in 2025.

13

Trainings offered

2

Forums offered

60%

Increase in training registrants from 2023



## Workforce Education & Training Summary

I-REN’s workforce offerings include an Energy Fellowship initiative that provides job opportunities in local jurisdictions to support public sector energy efficiency projects.

In 2024 I-REN increased the number of Energy Fellows it placed, and those Fellows began making direct contributions to support the implementation of projects through I-REN’s Public Sector Programs. Also in 2024 I-REN conducted an energy workforce assessment to identify workforce needs and opportunities in the region. The assessment included surveying employers to learn more about their hiring and job skill needs related to energy efficiency. In 2025 I-REN will continue to grow the number of Energy Fellows it places at local jurisdictions, and provide additional experiential learning opportunities for the Fellows. I-REN will also work to implement program plans based on results of the market assessment.

385

Local employers surveyed for market assessment

14

I-REN energy Fellows placed at local agencies

26

Public sector EE projects supported by I-REN Fellows

# 02. —

## 2024 Achievements and 2025 Plans

# Introduction

I-REN's EE program portfolio consists of six programs in three sectors: Public Sector, C&S, and WE&T.

The primary purpose of I-REN's Public Sector Programs is equity—to improve access to EE for HTR, underserved, and Disadvantaged Communities (DACs). The Public Sector Programs support the advancement of the California Public Utilities Commission (CPUC)'s Environmental and Social Justice (ESJ) Action Plan.<sup>1</sup> The program also provides corollary benefits such as increased comfort and safety, improved indoor air quality, and more affordable utility bills, consistent with Goals 1, 2, and 5 in the ESJ Action Plan. One of I-REN's equity segment programs is a resource program that will deliver savings via projects in public sector facilities.

The primary purpose of I-REN's WE&T sector is to provide market support to assist in the long-term success of the EE market by educating customers, training contractors, and building partnerships. C&S programs are considered separately from other segments, as directed in D.21-05-031.<sup>2</sup> I-REN's C&S programs are focused on training, outreach, and technical assistance to support private and public sector building professionals in understanding and complying with building Energy Codes.

I-REN's programs and 2024 activities are detailed in the pages that follow, along with a look ahead to I-REN opportunities in 2025 and beyond.



## Public Sector

- Technical Assistance and Strategic Energy Planning Program
- Normalized Metered Energy Consumption Program



## Codes & Standards

- Training and Education Program
- Technical Support Program



## Workforce Education & Training

- Training and Education Program
- Workforce Development Program

<sup>1</sup> <https://www.cpuc.ca.gov/esjactionplan/>

<sup>2</sup> D.21-05-031 at 16.



## Public Sector

I-REN’s Public Sector Programs deliver customized technical assistance and provide monetary incentives for energy projects at publicly owned facilities in the I-REN service territory.

Through these programs, I-REN is increasing underserved and HTR agency access to EE and resiliency within the region. Public sector services include energy use evaluation, facility benchmarking, and targeted project development in line with regional climate and/or energy action plans. Eligible public agencies include:

- Cities and townships
- Counties
- Tribes
- K-12 school districts
- Special districts
- Water and wastewater agencies/districts
- Higher education institutions
- Other public agencies

I-REN’s current Public Sector Programs are the Technical Assistance and Strategic Energy Planning Program (TA Program) and the Public Buildings Normalized Metered Energy Consumption Program (NMEC Program), publicly known as Cash for Kilowatts. I-REN agencies can access both programs simultaneously to maximize energy and resilience outcomes while minimizing their out-of-pocket project costs.

27,263

Square miles

11%

of California’s population

3

COGs

2

Counties

52

Cities

13

Tribal nations

215

Special districts

# I-REN-PUBL-001: Technical Assistance and Strategic Energy Planning Program

## PROGRAM DESCRIPTION

I-REN's Technical Assistance and Strategic Energy Planning Program (TA Program) offers energy planning and project development support throughout the lifecycle of EE projects. The program reduces the confusion and administrative burden of public sector EE projects, such as funding/financing and reporting requirements, by delivering no-cost services tailored to each agency's unique goals and needs.

This program offers several energy data collection and analysis services to equip agencies to make informed decisions about their energy future. For example, it offers facility benchmarking in I-REN's Building Upgrade Concierge (BUC) software and strategic energy and resilience planning through customized Energy Resilience Roadmaps.

Participating agencies receive a high level of technical and financial assistance for their EE projects. After determining an agency's energy and resilience goals, I-REN helps agencies identify EE projects and secure funding and financing to implement them. The program then guides agencies through applicable energy programs (including I-REN offerings and those of other PAs, including SoCalREN, Southern California Edison, and Southern California Gas Company), helping build capacity and easing the administrative burden of participating in energy programs. I-REN helps agencies use a variety of financing mechanisms available to them for their energy upgrade projects, including through other PAs and non-ratepayer-funded offerings (e.g., IOU financing, third-party program incentives, grants).

The TA Program has the following objectives:

- **PROVIDE** local governments with support and resources to develop and implement their strategic energy plans and EE projects, with a focus on prioritizing equity communities or facilities that serve underserved and HTR regions in the Inland Empire.
- **HELP** local governments afford and finance a range of EE upgrades.
- **ESTABLISH** one-on-one support for local governments' EE projects.
- **DEVELOP** or enhance strategic energy plans to connect local government goals related to climate, resilience, and economic development to EE programs and adoption.
- **CREATE** resources for the public sector to tap into EE and distributed energy resources programs offered by other providers, including IOUs.

## ACCOMPLISHMENTS IN 2024

In 2024, I-REN continued to build on its accomplishments and groundwork laid in 2023 during the program design and launch phases. In January, key Public Sector Program design elements were approved by the I-REN Executive Committee, which allowed the public sector team to finalize remaining program tools and templates. The Executive Committee provided guidance on parameters for resource allocation and determined a policy for providing project support throughout the region. This resource allocation policy allows a maximum of two energy efficiency projects per agency at a time (four for counties) and reserves funding for all eligible agencies.

I-REN continued to focus on regional engagement and hosted its first public sector working group with in-person and virtual participation in September 2024. During the working group meeting, the I-REN team answered questions about program offerings, and I-REN agencies shared case studies of how I-REN has helped them identify projects, save energy, and save money. Attendees also participated in a collaborative activity facilitated by Angie Hacker, Statewide Best Practices Coordinator at the California Climate and Energy Collaborative. The working group was attended by more than 70 participants, including 41 in-person attendees across three locations and representatives from 29 underserved and/or HTR agencies. As a result of the working group, I-REN agencies were able to connect with other local governments in their network and share best practices and lessons learned. During the working group meeting, I-REN learned that agencies are leveraging I-REN’s Portfolio Energy Analysis services to prioritize facilities for upgrades, and are aligning I-REN projects and program services with local, state, and federal mandates. The working group provided insights into the region’s needs and where future energy-related support within the Inland Empire is needed most.

**Local government staff participate in group activity during Public Sector Working Group meeting**



**Case studies highlighted during the Public Sector Working Group meeting**

I-REN discussed potential program overlap, synergies for collaboration, and how to prevent duplication of services and double dipping with stakeholders locally and statewide. I-REN established coordination protocols and set up bimonthly meetings with Los Angeles County—the PA for the Southern California Regional Energy Network (SoCalREN)—to discuss high-level project development among agencies enrolled in both regional energy networks. I-REN also coordinated with PAs across the state in a series of program overlap risk discussions to identify potential program overlap and strategies to minimize duplication of services.<sup>3</sup> Discussions have also started with various municipal-owned utilities to explore opportunities for memorandums of understanding to provide comprehensive I-REN services for agencies only served by Southern California Edison (SCE) or Southern California Gas Company (SoCalGas).

## TA FUNDING AND FINANCING SUPPORT

In line with the public sector objective to help local governments afford and finance a range of EE upgrades, I-REN helped agencies to pursue Energy Efficiency & Conservation Block Grant (EECBG) funding offered through the U.S. Department of Energy (DOE). I-REN’s support included facilitating the application processes, providing sample applications, offering technical assistance and guidance, hosting information sessions, coordinating with the DOE and the CEC, navigating funding options, and enhancing community energy strategies.

I-REN helped 12 agencies (100% of which were underserved and/or HTR agencies) secure over \$1.8 million in EECBG funding through targeted support during the application process, which amounted to approximately 30% of all EECBG funds allocated to I-REN member agencies. The agencies I-REN worked with were able to leverage the TA Program services to identify facilities and include high-level project measure overviews to strengthen their applications.

### *Breakdown of member agency EECBG funding allocations secured with I-REN support*

### Member Agencies Supported

City of Adelanto: \$76,240	City of Hemet: \$141,750	City of San Bernardino: \$249,590
City of Chino Hills: \$131,350	City of Highland: \$115,100	City of Victorville: \$173,590
City of Eastvale: \$123,670	City of Ontario: \$218,330	City of Yucaipa: \$113,510
City of Fontana: \$230,640	City of Redlands: \$133,300	Town of Apple Valley: \$130,740

**Types of projects:** Battery systems, streetlights, building retrofits, solar charging station, HVAC and lighting controls, EV charging stations, solar poles.

**Over \$1.8 MILLION secured!**

<sup>3</sup> D.23-06-055 Ordering Paragraph 32 directed PAs to jointly submit an advice letter addressing program overlap and risk mitigation.

## MARKETING AND OUTREACH CAMPAIGNS

I-REN’s 2024 public sector marketing focused on eligible public agencies in the Inland Empire and elected officials in the Inland Empire (e.g., COG executive committees and boards) to bolster community leaders’ support for I-REN’s efforts.

I-REN 2024 public sector marketing objectives were as follows:

- **BUILD** awareness of I-REN public sector services within target audiences.
- **HIGHLIGHT** program successes to encourage agency participation.
- **DEVELOP** remaining program implementation templates in line with I-REN brand guidelines.

The table below summarizes I-REN’s 2024 metrics/targets and results.

### *I-REN Public Sector 2024 Marketing Metrics/Targets And Results*

Metric/Target	Result
Publish 12+ public sector-focused social media posts across platforms.	<b>8/12 (67%)</b> I-REN set this target based on the assumption of one public sector post per month. Since accounts did not launch until Q2, I-REN still managed to come close to its target, posting frequency.
Contribute content highlighting public sector services, project successes, and/or educational content for 100% of I-REN-wide email campaigns.	<b>4/4 (100%)</b> I-REN featured public sector content in each quarterly REN-wide email campaign and sent nine email campaigns to I-REN’s public sector email contacts.
Develop 6+ “evergreen” program success outreach materials that can be used in a variety of mediums to showcase I-REN public sector success.	<b>7/6 (116%)</b> I-REN exceeded its goal, developing seven marketing resources (e.g., videos, fact sheets, sample project deliverables) that can be used regularly in outreach.

I-REN began email marketing outreach in 2024. Nine email campaigns were sent to public sector contacts. The table below summarizes the results of these campaigns.

### *I-REN Public Sector Outreach Campaign Results*

Campaign	Open Rate Percentage of emails opened by recipients	Click Rate Percentage of emails that registered at least one click
<b>Public Sector 2024 email average</b>	<b>50.0%</b>	<b>12.9%</b>
I-REN overall 2024 email average	43.2%	8.2%
MailChimp government email benchmark	40.55%	4.58%

## EVENTS/CONFERENCES

I-REN had public sector participation/representation at the following events in 2024: the Tribal Clean Energy Summit, 15th Annual CCEC Forum, ACEEE 2024 Summer Study on Energy Efficiency in Buildings, WRCOG General Assembly, the Public Sector Working Group Kick-off Meeting (hosted by I-REN), and REACH IE. These successful events allowed I-REN to spread awareness about its relatively new programs for the region.

### I-REN poster presentation at American Council for an Energy-Efficient Economy Summer Study

## Scaling Energy Efficiency in the Inland Empire:

### An Innovative Incentive Strategy Designed by and for the Inland Empire

The Inland Regional Energy Network (I-REN) connects local governments, workers, and community partners with energy efficiency resources, education, and funding through no-cost programs. I-REN supports agencies served by Southern California Edison and/or SoCalGas within San Bernardino and Riverside Counties.

**I-REN Sectors**

- Public
- Workforce education & training
- Codes & standards

**I-REN's Public Sector Goals**

Help public agencies:

- Build capacity and knowledge
- Save energy and money
- Address climate-related risks such as extreme heat
- Improve their aging infrastructure

**I-REN's Public Sector Services**

Customized project management, technical assistance, strategic energy planning, facility benchmarking, funding assistance, and cash incentives for holistic energy efficiency projects

**Service Territory**

#### How I-REN public agencies designed their own incentive program to address community needs

**GOAL:** Develop an incentive structure for the I-REN's normalized metered energy consumption (NMEC) program (publicly known as Cash for Kilowatts) that reflects the priorities and values of its member agencies.

**Feedback**

After I-REN program orientations, member agencies completed surveys with several questions related to funding and financing prioritization. Based on 81 survey responses, member agencies opted for monetary incentives to prioritize reducing overall energy consumption, replacing equipment at community cooling centers or resiliency centers, and achieving a higher percentage of energy savings.

**Incentives / Funds for EE Projects**

What of the following options additional incentive?

64%

**Incentives / Funds for EE Projects**

What should monetary incentives prioritize?

32%

**Incentive Structure**

Projects are incentivized based on claimable energy savings achieved. Tiered kWh incentive "kickers" are also available to encourage deep energy savings (over 15% total savings of the meter) and holistic projects. kWh incentives are doubled for projects that occur at a critical, cooling, or resiliency center.

Energy Savings	Base Incentive Rate	Total Savings Percentage*	Incentive Rate	Critical/Cooling/Resiliency/Center Rate
kWh	\$0.50	Up to 15%	\$0.50/kWh	\$1.00/kWh
kW	\$200.00	16-30%	\$0.60/kWh	\$1.20/kWh
therms	\$1.00	31-50%	\$0.70/kWh	\$1.40/kWh
		Over 50%	\$1.00/kWh	\$2.00/kWh

\*Total project savings will have to pass eligibility criteria per the NMEC Rulebook

#### I-REN Timeline: From Launch to Design

**2019**

- I-REN coalition formed
- I-REN is a consortium of three councils of government.

**2021**

- I-REN Business Plan approved by California Public Utilities Commission (CPUC)
- Includes no-cost programs in three sectors: public, workforce education & training, and codes & standards.

**2023**

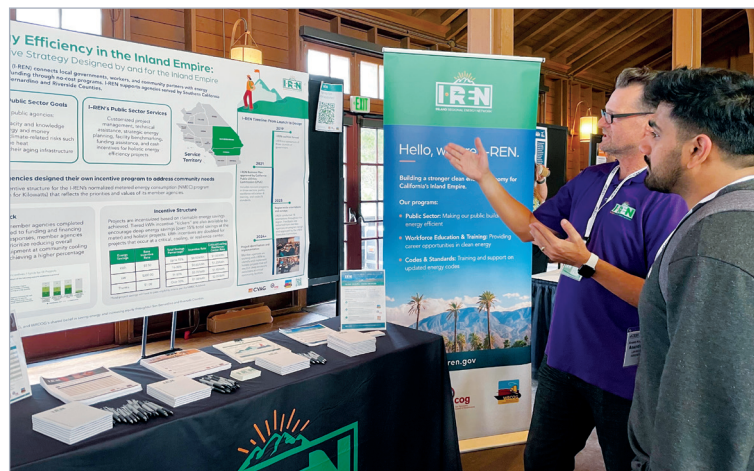
- Region-wide orientations and surveys
- I-REN conducted 18 orientations throughout the region. Feedback was collected from member agencies on program design and approved by the I-REN Executive Committee.

**2024+**

- Project identification and implementation
- Member agencies are working with I-REN to identify and implement holistic projects that will result in deep emissions reductions at critical community facilities.

I-REN was formed as a partnership based on CVAG, SBCOG, and WRCOG's shared belief in saving energy and increasing equity throughout San Bernardino and Riverside Counties.

Benjamin Druyon presenting for I-REN



## ONBOARDING AND PROJECT DEVELOPMENT

2024 was a busy year for the TA Program. The I-REN team onboarded an additional 30 agencies, largely based on referrals from satisfied program participants, and 29 of which serve underserved and/or HTR communities. Many of I-REN’s word-of-mouth referrals to participate in its programs turned into opportunities for project exploration and development. Numerous non-member agencies began to leverage I-REN’s Public Sector Program offerings in 2025, and I-REN saw a rise in the participation of educational institutions and the first tribal governments. These agencies will bolster I-REN’s growing project pipeline in 2025 and beyond.

I-REN conducted no-cost audits for 19 agencies at 44 facilities in the territory. I-REN identified potential lifetime savings of over 35 million kWh and 12,500 therms, as well as \$8.5 million in utility bill savings and over \$2.8 million in incentives for agencies within the region. The project pipeline I-REN built will channel projects into I-REN’s Cash for Kilowatts program and other programming offered in SCE and SoCalGas territory, including third-party EE programs such as SoCalREN resource acquisition programs. In 2024, I-REN saw its first project complete construction with a lighting project at a Colton Joint Unified School District middle school, which serves an underserved community.

***100% of I-REN’s current project pipeline will benefit equity communities.<sup>4</sup>***

All facilities that received no-cost audits in 2024 were located in underserved and/or HTR ZIP codes, or the public agency was designated as underserved per CPUC guidelines.

30

New agencies onboarded

29

Underserved and/or HTR communities

Potential Lifetime Savings

35M+

kWh

12,500+

therms

\$8.5M

Utility bill savings

\$2.8M+

Incentives

<sup>4</sup> Forty-three of the 44 facilities that received energy audits are located in underserved or HTR zip codes. One facility audited in Rancho Cucamonga is not located in an equity zip code, but the city is considered an equity customer per CPUC guidelines.

## Highlights of facility audits completed in 2024



City of Ontario Toyota Arena



City of Highland Sam J. Racadio Library and Environmental Learning Center



City of Palm Springs Fire Station #1



City of Murrieta City Hall



City of San Bernardino Norman F. Feldheim Public Library

**Program Services Overview**

Activity	Count	% Equity
Orientations delivered <sup>5</sup>	1	100%
Onboarding meetings held	30	97%
Site visits performed	44	100%
Initial Measures Lists developed	37	100%
Project Intent forms received	10	100%
Incentive applications submitted	1	100%
Incentive applications approved	1	100%
Projects completed construction	1	100%

## STRATEGIC ENERGY PLANNING

### Energy Resilience Roadmap

I-REN developed an innovative report, the Energy Resilience Roadmap, to help agencies improve their energy efficiency and climate resilience.

**Sample Energy Resilience Roadmap Highlight**



<sup>5</sup> Last regional orientation was held in 2024; 17 orientations were delivered in 2023.

The Preliminary Energy Resilience Roadmap examines an agency’s climate plans, energy goals, community vulnerabilities, and energy performance across its portfolio. It also identifies energy-intensive buildings and pumping sites for potential energy efficiency and resilience upgrades. While presenting the preliminary roadmap, I-REN invites agency stakeholders to share their energy goal progress and priorities, identify critical facility needs, and collaborate on actionable next steps to build energy resilience in their community. In Q2 2024, I-REN updated the “Next Steps” section of the preliminary roadmap to include two “Option” slides. These slides allow agencies to choose between a Final Energy Resilience Roadmap that provides high-level energy efficiency, resilience, and EV project recommendations at up to three sites, and jump into facility energy audits if the agencies are confident in the facilities they want to prioritize. Presenting two “Next Steps” options at the end of the preliminary roadmap presentation gives the agency a clear framework for decision making, streamlining the process. It also increases engagement by offering clear and actionable next steps.

“ *These [climate and energy goal] metrics will help guide our CAP development efforts.* ”

—City of Chino Hills

Developed in Q1–Q2 2024, the Final Energy Resilience Roadmap builds upon the preliminary roadmap and offers tailored recommendations for up to three priority facilities. These recommendations include potential measure-level energy efficiency upgrades, energy resilience additions (such as solar and battery storage systems), and additional clean energy site improvements, such as electric vehicle infrastructure. Energy efficiency project recommendations are either supplied by AESC’s Building Upgrade Concierge (BUC) tool (for facilities that have not yet had a facility audit), or from completed initial measures lists (developed after a facility audit). This approach allows the final roadmap to incorporate the most accurate available energy savings estimates. Final roadmaps commonly possess a hybrid of previously audited and yet-to-be-audited facilities, which provides a holistic view of potential project opportunities at all priority facilities. High-level energy resilience recommendations are generated through the National Renewable Energy Laboratory’s REopt tool. The REopt tool utilizes a facility’s annual energy consumption, building type, location, utility rate, and more to generate solar and battery sizing recommendations.

The final roadmap concludes with practical next steps, such as facility energy audits or pump tests, to seamlessly incorporate recommendations into an agency’s current and future energy plans. This ensures that agency stakeholders and decision-makers are well prepared to tackle and enhance energy resilience in their community. Once specific measures are selected, I-REN supports the agency with applying for funding/financing, and with developing and submitting incentive applications to make the projects a reality.

### 2024 Energy Resilience Roadmap Development

	PRELIMINARY Energy Resilience Roadmaps	FINAL Energy Resilience Roadmaps
Presented	31*	4
Awaiting Presentation	3	
Developed	32	4
In Progress		4

\*Two developed in Q4 2023

**100% of Energy Resilience Roadmaps I-REN provided in 2024 went to agencies that serve underserved and/or HTR communities.**

### Energy Benchmarking

I-REN helps agencies add their building portfolio to ENERGY STAR Portfolio Manager® (ESPM), an online management tool created by the U.S. Environmental Protection Agency. ESPM allows building owners and facility managers to track and assess energy use. I-REN ESPM benchmarking services include creating new portfolios or updating existing portfolios with facility characteristics like square footage and year built, as well as automating the upload of monthly energy consumption from on-site utility meters. I-REN helps agencies determine if their facilities require California AB 802 building benchmarking compliance and guides agencies that meet the compliance requirements through the submittal process.

### 2024 Energy Benchmarking Facility Support

New ESPM Portfolio Development	41	Facilities completed
Existing ESPM Portfolio Refresh	32	Facilities completed
AB 802 Compliance Support	53	Facilities completed

**100% of the benchmarking support I-REN provided in 2024 focused on facilities that are owned or operated by public agencies serving underserved and/or HTR communities.**

## Building Upgrade Concierge (BUC) Software

The Building Upgrade Concierge tool is a web-based solution offering advanced analytics, modeling, and measurement and verification. In 2024, the tool was fully integrated into I-REN's Public Sector Programs, facilitating benchmarking and project development for local governments, special districts, and tribal communities. BUC leverages site-specific parameters to identify and display energy-saving opportunities in a measures list, providing agencies with high-level recommendations.

## Portfolio Development and Analysis

In 2024, I-REN developed nine agency portfolios in the BUC platform and conducted detailed energy analyses for seven portfolios. This effort provided actionable insights into energy-saving opportunities tailored to each agency's building portfolio.

## Training and Capacity Building

I-REN conducted specialized BUC-focused training sessions for the I-REN Energy Fellows, equipping them with the knowledge to support portfolio management and optimization for member agencies. I-REN also hosted orientation meetings throughout 2024 to introduce the BUC tool to its public sector partners. These sessions provided a high-level overview of BUC's capabilities, including:

- Portfolio management and dashboard configuration
- Benchmarking and utility bill analysis charts
- Measure savings reports and customized recommendations

### 2024 BUC Portfolio Development

9

Agency portfolios created

25

User accounts created

**100% of the BUC support I-REN provided in 2024 went to facilities that are owned or operated by agencies serving underserved and/or HTR communities.**

## OPPORTUNITIES IN 2025 AND BEYOND

In 2025, I-REN will identify new and fresh avenues to educate and engage public agencies in the region to encourage participation in I-REN’s services. Leveraging the project identification and development work in 2024, I-REN will focus on project implementation, helping agencies realize energy and cost savings. I-REN will highlight successes via engagement opportunities and new marketing materials that can be used to secure agency buy-in during various stages of the project implementation lifecycle.

Through internal discussions across sectors, I-REN identified the opportunity to leverage synergies among WE&T Fellows, potential project opportunities, and relationship-building. Many agencies that I-REN currently works with throughout the territory host a Fellow, and they are actively engaged in facilitating Public Sector Program services within their host sites.

*City of Ontario Fellow attending the Toyota Arena facility audit. The Fellow will support project implementation at this facility in 2025.*



In early 2025, I-REN hosted a workshop on Community Resilience Centers with the California Strategic Growth Council, highlighting available no-cost resources and sharing regional and statewide opportunities for support. This workshop was the Public Sector Programs' first opportunity of the year to provide in-person education and energy insights. Additionally, I-REN intends to build public sector representation at industry events through event sponsorship, poster presentations, and panel discussions. I-REN will continue to run targeted marketing campaigns relevant to agencies in the region. Lastly, to enhance pipeline development and support, the program will utilize additional non-ratepayer-funded incentives, such as incentives offered through TECH Clean CA, that can be combined with I-REN's incentives.

## BENCHMARKING SUPPORT AND TRAINING RESOURCES

The I-REN team is creating a comprehensive series of training videos to guide users through the benchmarking process so they can more effectively track and manage their energy data. This multi-part video series will provide step-by-step instructions on how to navigate and utilize the ESPM tool. Each video will focus on a specific aspect of benchmarking, offering clear guidance to ensure viewers can confidently apply what they learn.

The training series is expected to launch in the first quarter of 2025 and will help agencies achieve greater efficiency and accuracy in their energy management efforts. The videos will cover:

- **ESPM BENCHMARKING:** Detailed guidance on using ESPM for tracking and managing building energy use effectively
- **BUC TOOL FEATURES:** Tutorials on navigating key functionalities, including the BUC Dashboard, Analytics Charts, Analytics Reports, and Opportunity Register

I-REN will also develop a Benchmarking Services One-Pager, which will summarize all available I-REN benchmarking support opportunities. This user-friendly guide will enable local governments, special districts, and tribal communities to understand, access, and leverage I-REN's benchmarking tools and services.

## INTEGRATED DEMAND-SIDE MANAGEMENT (IDSM)

D.23-06-055 allows PAs to set aside up to 2.5% or \$4 million of their EE budgets to provide an operational complement for integrated demand-side management (IDSM) in program years 2024–2027. I-REN submitted a Tier 3 Advice Letter detailing its plans for expanding its public sector offerings to include IDSM technical assistance. Upon California Public Utilities Commission (CPUC) approval, I-REN will utilize these funds to provide a distributed energy resources (DER) component to audits to identify resilience opportunities for agencies, such as renewable energy, battery storage, and microgrids. I-REN will allocate resources to conduct DER audits, offering agencies technical assistance to achieve their resilience and climate goals. In 2025, I-REN anticipates that the CPUC will approve its IDSM Advice Letter, at which time I-REN will focus on program design elements to add DER components to its technical assistance offerings.

# I-REN-PUBL-002: Public Buildings Normalized Metered Energy Consumption Program

## PROGRAM DESCRIPTION

I-REN’s Public Buildings Normalized Metered Energy Consumption (NMEC) Program, publicly known as Cash for Kilowatts, provides technical support—such as eligibility screening, and measurement and verification (M&V)—and incentives for meter-based energy savings. The program uses an NMEC approach to measure energy savings at the meter, incentivizing savings that have historically been excluded from EE programs or from technologies that are considered industry standard practice. The program places a special focus on whole building improvements to community-serving buildings by offering enhanced incentives for deep energy savings at critical facilities, cooling centers, and resilience centers.

Cash for Kilowatts has the following objectives:

- **SUPPORT** comprehensive lighting and whole building projects to improve the comfort and safety of vulnerable populations. The program will focus on critical facilities and emergency or cooling centers.
- **DELIVER** deep energy savings to public agencies at high visibility locations, positioning local governments as EE leaders within their communities and helping to meet local and state EE and greenhouse gas reduction goals.
- **PROVIDE** technical expertise and training to facility personnel to maximize the persistence of energy and bill savings. The program will deliver savings reports to public agencies to monitor and communicate post-project energy usage.

Using an NMEC approach to calculate energy savings will protect agencies from a mismatch between forecasted and actual savings. Combined with technical assistance and reinforcement of operations and management best practices, Cash for Kilowatts will maximize public agencies’ savings for their communities.

## ACCOMPLISHMENTS IN 2024

In 2024, Cash for Kilowatts focused on building a robust project pipeline. The program shifted its approach of offering a tiered incentive structure and introduced a \$2/kWh temporary enhanced incentive rate to encourage project application development in 2024. As a result, one project received full application approval and two more secured the enhanced rate. Additionally, over 20 internal and external program tools and templates were developed to support effective program delivery. Of the 37 initial measures lists developed in 2024 through the TA Program, 25 facilities were eligible for the Cash for Kilowatts program, 68% were at emergency operations, resilience, or cooling centers, and 100% were in underserved and/or HTR communities.

### Forecasted Savings and Incentive Reservation Metrics\*

173,656

kWh savings  
100% equity

14.7

kW savings  
100% equity

-735

Therms savings  
100% equity

\$220,872

Funds reserved  
100% equity

\*Forecasted Savings are based on project application approval metrics for projects that completed construction in 2024.

**NMEC Program Pipeline Developed for Future Years\***

Metric	Potential Savings	% Equity
First Year Net kWh	2,720,019	100%
First Year Net kW	409	100%
First Year Net Therms	33,595	100%

\*Savings are based on forecasted construction completion timelines. Pipeline includes total savings projected for 2025 and beyond.

**NMEC Project Details**

Metric	Number of Projects	% Equity
Projects Installed	1	100%
Projects Approved	1	100%
Projects in Pipeline: Application Submittal	2	100%
Projects in Pipeline: Pre-Application Submittal	27	100%

**OPPORTUNITIES IN 2025 AND BEYOND**

Building on the successes of 2024, Cash for Kilowatts will continue to expand its pipeline by extending the \$2/kWh incentive rate for project applications submitted in 2025, with a stronger emphasis on emergency, resilience, and cooling center projects, especially in equity communities. Additionally, the program will explore opportunities to support projects in recently submetered facilities, often found on campuses. These facilities are typically unable to participate in other NMEC programs due to the absence of full 12-month baseline energy use data. To address this, Cash for Kilowatts will assess the potential of using alternative 9-month periods throughout the year to see if this approach offers favorable results for the predictability analysis.

Following EE project implementation, I-REN will collaborate with contractors to provide operations and maintenance training for agency staff, if needed, to ensure the persistence of savings throughout the monitoring period. I-REN will also partner with local governments to obtain monthly utility data and will use the BUC tool to track realized energy savings from completed projects. Local governments will be able to view their building portfolio dashboard, identify projects not meeting energy savings projections, and make necessary adjustments to their EE upgrades. The I-REN public sector team will use BUC to generate reports and provide supporting data to the third-party evaluation, measurement, and verification (EM&V) contractor for Cash for Kilowatts. BUC will be the main resource for NMEC project and data tracking.



## Codes & Standards

I-REN's service territory includes many Authorities Having Jurisdiction (AHJs) that face significant challenges in enforcing the Energy Code with their current resources and capacity.

These jurisdictions are small in population size, geographically dispersed, challenged by extreme climate conditions, and disadvantaged by pollution and other factors. I-REN has significant opportunity to support compliance and enforcement, and to ensure building department knowledge, awareness, and realization of energy-savings measures.

I-REN's C&S initiatives offer locally focused training, education, and tools to support C&S implementation, gap filling, Energy Code enforcement, and compliance activities. Training and educational resources are informed by and targeted specifically to address the needs of jurisdictions in the region. To ensure statewide consistency in compliance improvement support, I-REN coordinates and collaborates with the statewide C&S team and meets with the California Energy Commission (CEC) on a quarterly basis.

### I-REN-CS-001: C&S Training and Education Program

#### PROGRAM DESCRIPTION

I-REN's C&S Training and Education Program tailors its offerings to support building professionals working with the California's Energy Code, Title 24 Part 6. Trainings, webinars, and forums are held year round with varying topics that are tailored to the region's climate zones and needs.

Outreach for this program consists of promoting training through I-REN governing agencies' existing communication channels, through local government partnerships, and through building industry communication networks. I-REN is collaborating with statewide industry leaders, codes experts, and local governments to design and deliver effective messaging during code updates and transitions.

#### ACCOMPLISHMENTS IN 2024

##### Growth in Participation

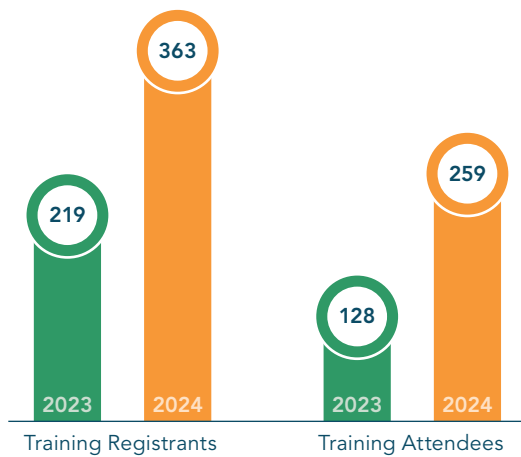
The program increased registration and attendance rates from 2023 while maintaining a high quality of delivery. In 2024, 363 people registered for thirteen unique C&S trainings, a 60% increase from 2023. Among registrants, there were 71 people who registered for more than one training in 2024, and one person who signed up for 10 trainings, illustrating the value that attendees found in the trainings and their interest in pursuing further training opportunities from I-REN. Additionally, 259 of the total registrants followed through with attending the trainings, a 61% increase in attendance compared to 2023. This represents a 67.3% registered versus attended ratio for 2024. Of the 259 training attendees in 2024, there were 157 attendees who received continuing education credit (CEU) certificates, indicating that they stayed for at least 60 minutes of the training. This is a 94% increase in CEUs issued compared to 2023.

**363**  
People registered

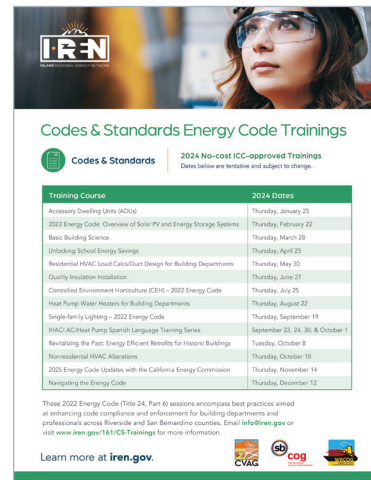
**259**  
Attended trainings

**157**  
Attendees received  
CEU certificates

**I-REN C&S Training Registration and Attendance, 2023 versus 2024**



**I-REN C&S 2024 Trainings Flyer**



### Increased Energy Code Knowledge

I-REN conducts surveys following C&S training to support CPUC metrics reporting and inform continuous improvement in program offerings. In 2024 there were 109 post-training evaluation surveys completed by attendees, and 99% of respondents indicated an increased knowledge of the Energy Code—a very significant indicator that I-REN C&S trainings are providing new and relevant content to enrich participants’ understanding of Energy Codes and standards. Based on survey results, 54% of participants “strongly agreed” that the trainings met metrics of satisfaction, including the knowledgeability of the trainer, relevancy and helpfulness of training materials and handouts, and high quality of instruction. One committed participant, who attended six trainings in 2024, noted at the end of the October 2024 Nonresidential HVAC Alterations training:

“Great class as always. Thank you. Great work.”

## Improved Equity Data Collection Practices

I-REN updated its standard event registration form to enable improved tracking of equity participant types. I-REN evaluates participants for the following:

- Disadvantaged Worker, defined in D.18-10-008
- Disadvantaged Community (DAC), defined by Senate Bill (SB) 350, discussed in D.18-05-041, and measured using the California Environmental Protection Agency [CalEnviroScreen](#) analytical tool
- Hard-to-reach (HTR), as defined by the CPUC and most recently modified in D.23-06-055
- Underserved Community, defined by the CPUC in D.23-06-055

Equity participant data is required by the CPUC for energy efficiency program metrics and indicators. Moreover, it is a priority of I-REN to increase equity in its program offerings, and this data allows I-REN program teams to ensure they are serving those communities. However, this often necessitates requesting sensitive information like home address, phone number, household size, household income, and language most frequently spoken at home. For programs such as I-REN C&S Training and Education, gathering equity information on event registrations from individual members of the public has posed a barrier to participation in trainings and forums. In 2024 the C&S Training and Education Program received multiple complaints or opt-outs due to the length of registration forms and invasiveness of information requested to verify equity participation.

In early 2024 I-REN's C&S program team undertook an effort to streamline the registration form and provide context for equity-related questions. Launched in July 2024, the updated form includes simplified fields, plus an "Equity Tracking Disclaimer and Acknowledgment" that informs registrants of why they are being asked the following questions and assures that their data will not be shared other than as required for reporting by the CPUC. Doing so has reduced complaints, increased registration counts, and enabled I-REN to definitively measure equity participation.

From July through December 2024, 23% of training attendees qualified as equity participants under one or more of the above definitions. By enabling better data collection related to equity criteria, I-REN can be responsive to CPUC equity metrics and indicators and assess its performance over time in expanding participation by equity customers.

## Launch of Multilingual Offerings

The 2020 census identified Hispanic Californians as the largest ethnic group, making up 39.4% of the state population. In the Inland Empire alone, the Hispanic population comprises a majority of the region at 51.5%, amounting to around 2.37 million people (University of California Riverside<sup>6</sup>). Available code and technical training offerings are largely conducted in English, but may not be accessible to contractors who primarily speak Spanish. Statewide, these contractors are crucial in meeting California's energy efficiency goals, especially its goal of installing 6 million heat pumps by 2030.

<sup>6</sup> <https://socialinnovation.ucr.edu/aqui-estamos>

In fall 2024, I-REN partnered with the Institute of Heating and Air Conditioning, Inc. (IHACI) to offer a four-part training module on Air Conditioning and Heat Pumps in Spanish. This made I-REN the first REN in California to offer a no-cost, CEU-offering, multilingual technical training. One company, which directed several employees to take the training, said:

*“The I-REN Spanish training is fulfilling an important role in reaching key workers who are often left out of training opportunities.”*

Cross-promotion was carried out with IHACI, the TECH Clean California program, and Quality Residential HVAC Services program, resulting in 50 registrants. There were 21 unique attendees, with 11 full-course attendees who received CEUs.

## Forums

After focusing on launching trainings in 2023, I-REN expanded the program to host two virtual forums in 2024. The first, held in spring 2024, was titled Demystifying the Energy Code: How and Why to Comply. This focused on a general introduction to the Energy Code and how various professions interact with it locally. The forum featured a diverse panel of speakers ranging from a facilities superintendent to a sustainability director to an architect. There were 28 attendees, representing 11 I-REN AHJs, along with several private sector organizations.

The second forum, held in fall 2024, focused on energy efficiency in historic buildings, due to the large number of buildings on the National Registry of Historic Places in I-REN territory. The keynote speaker detailed the role of energy efficiency and the Energy Code in his firm’s restoration project of Palm Springs’ historic Bank of America building. This building won the 2024 Commercial Restoration Award for retaining its original character while meeting current California energy efficiency standards, making it an ideal case study for the region.

### *I-REN C&S 2024 Fall Energy Code Forum Flyer*

Building industry professionals in Riverside and San Bernardino Counties are invited to the Inland Regional Energy Network's second Forum on October 8, 2024.

**REVITALIZING THE PAST:  
Energy Efficient Retrofits  
for Historic Buildings**

Tuesday, October 8, 2024

9:00AM – 11:00AM  
Online via Zoom

Codes & Standards

Learn how the Energy Code (Title 24, Part 6) applies to historic buildings to help facilitate energy efficiency retrofits to these buildings. This knowledge will benefit building department staff, architects, contractors, designers, and other building industry professionals as there are more than 100 historic buildings in Riverside and San Bernardino Counties listed on the National Park Service's National Register of Historic Places.

*The C&S training program intends to host two forums again in 2025, one on the new 2025 Energy Code, and another on resiliency in a changing energy landscape.*

## OPPORTUNITIES IN 2025 AND BEYOND

In 2025, the C&S training program will diversify its training event topics and increase training accessibility, with a focus on reaching equity and private sector participants. As part of this effort, I-REN plans to partner with contractor organizations for two events and engage in general cross-promotion with regional contractor organizations. More trainings will be offered in Spanish, utilizing lessons learned to reach a larger audience and increase the participation rate in these trainings.

Of particular focus in 2025 will be preparing the I-REN region for the 2025 Energy Code, which comes into effect on January 1, 2026. One forum, as well as a series of trainings, will be focused on different aspects of the 2025 Energy Code, from a deep dive on the biggest changes to updates on CalGREEN. The C&S training program intends to equip the region with the information needed for a smooth transition to the new standards on January 1, 2026.

## I-REN-CS-002: C&S Technical Support Program

### PROGRAM DESCRIPTION

I-REN's C&S Technical Support Program is a non-resource program designed to develop technical assistance tools and resources to assist building departments and the building industry with understanding, evaluating, and permitting the Energy Code to support improved enforcement and compliance. A priority is customizing code support specific to I-REN jurisdictional needs.

### ACCOMPLISHMENTS IN 2024

#### Energy Code Support

In 2024, I-REN's "Ask an Energy Code Question" resource received its first request since the resource launch, for a total of three requests in 2024, with questions from San Bernardino County and Riverside County. This service allows individuals from the building industry to request code support specific to their project and receive personalized support from I-REN's Energy Code Specialists. Our Energy Code Specialists answered each question with tailored assistance and additional resources.

I-REN also launched online permit guides, which are quick reference sheets for particular code topics specific to I-REN's jurisdictions. These permit guides outline Energy Code requirements for I-REN's climate zones, broken down by project type. The two permit guides currently available are 1) Single-Family Homes Additions/Alterations: HVAC Heat Pumps and 2) Commercial HVAC Equipment Replacement Requirements.

### I-REN C&S Online Permit Guides

**Energy Code Permit Guides**  
 I-REN's Energy Code Support team is here to help guide you through the permitting process to meet Title 24 requirements.

I-REN has developed quick permit guides that outline the energy code requirements. All permit guides include a checklist of what you will need during the permitting process and have examples of which code requirements are applicable to your project.

Download our permit guides today to ensure your project meets all code requirements:

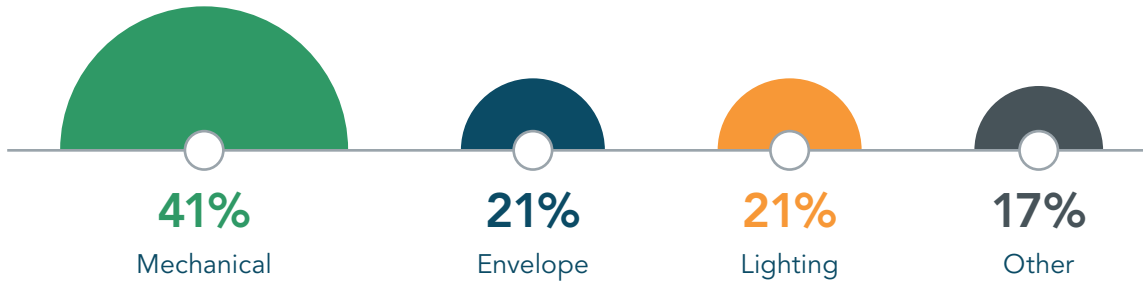
- [Single-Family Homes Additions/Alterations: HVAC Heat Pumps](#)
- [Commercial HVAC Equipment Replacement Requirements](#)
- [Single-Family Homes Solar PV Requirements](#)

Don't see a specific topic you are looking for? Request a customized permit guide [here](#) or ask our Energy Code Specialists any questions you may have.

### Outreach

I-REN's technical support team leveraged results from the 2023 Market Assessment Survey to conduct outreach to jurisdictions that indicated they would like additional code assistance or were open to developing reach codes. I-REN offered tailored support and used this as an opportunity to better understand how I-REN can help improve their Energy Code experience.

#### Results from the 2023 Market Assessment Survey to inform Technical Assistance Resources



### Reach Codes

I-REN continues to support the City of Palm Springs with its reach codes for two in-progress ordinances:

- Supporting the early adoption of 2025 Code Controlled Environment Horticulture lighting efficiency measures
- Supporting enhancing the existing home EE requirements, based on an updated 2023 cost effectiveness study for home EE

Palm Springs' ordinances were approved by the Sustainability Commission in 2024 and are expected to be approved by the Agua Caliente Band of Cahuilla Indians Tribal Council in Q1 of 2025.

I-REN is also supporting Rancho Mirage implementation incentive programs that are influenced by I-REN's reach code efforts. I-REN provides technical support with the Cost-Effectiveness Explorer for Rancho Mirage's incentive programs, including its Residential Energy Efficiency Program.

The 2023 Market Assessment Survey revealed that the following jurisdictions are interested in reach code support:

- Canyon Lake
- Chino Hills
- Colton
- Grand Terrace
- Lake Elsinore
- Ontario
- Perris
- Rancho Cucamonga
- Redlands
- Riverside (County)
- San Bernardino (City)
- Temecula
- Twentynine Palms
- Upland
- Wildomar

## OPPORTUNITIES IN 2025 AND BEYOND

In 2025, program activities will focus on:

- **FINALIZING** reach codes in progress for Palm Springs
- **OFFERING** one-on-one meetings with key jurisdiction contacts to 1) establish "code champions" and engage these champions in improving permit processing methods, 2) develop tailored resources, and 3) invite them to new biannual code support charettes
- **ENLISTING** an additional program partner to redesign, promote, and provide responses for the "Energy Code Specialist" service
- **INCREASING** the number of jurisdictions leveraging technical assistance or training resources
- **DEVELOPING** additional Energy Code Permit Guides to offer a library of guides online



## Workforce Education & Training

Through its WE&T cross-cutting sector programs, I-REN will serve as a vital link between workforce skills and training providers (such as community colleges and employers) to build a more robust market and increase the number of skilled EE contractors in the Inland Empire.

These activities will promote job market recovery and progress toward statewide goals regarding EE, air quality, and support for HTR, underserved, rural, tribal, and disadvantaged communities. Both SB 350 and SB 535 prioritize these communities for initiatives to improve air quality, increase EE, and address economic conditions. SB 350 emphasizes workforce development and increased project penetration in underserved communities. I-REN has an opportunity to support these goals through its WE&T initiatives.

### I-REN-WET-001: WE&T Training and Education Program

#### PROGRAM DESCRIPTION

Through its WE&T Training and Education Program, I-REN will assess the current training marketplace in the Inland Empire and work with local providers—including higher education providers, high schools, adult schools, and professional training companies—to tailor content to be relevant to the region's needs and ensure that DACs are a focus. I-REN will collaborate with training providers to improve access to a broad spectrum of training opportunities in person, online, and in the field.

The Training and Education Program creates a robust local network of training programs that increase capacity and knowledge related to EE in the building industry. I-REN focuses largely on entry-level offerings in Riverside and San Bernardino counties. I-REN and these offerings raise the value of EE training and career paths within high schools, community colleges, and universities, encouraging more people to enter an industry involving or relating to EE.

### *I-REN WE&T Training & Education Program Overview*



#### **COMMUNITY OUTREACH AND ENGAGEMENT**

Help diverse job seekers find employment opportunities.



#### **NO-COST TRAINING AND EDUCATION**

Energy efficiency topics and trends.



#### **WORKFORCE DEVELOPMENT ACTIVITIES**

Create job pathways to local companies.



#### **BENEFIT**

Improve access to training opportunities in person, online, and in the field.

## **ACCOMPLISHMENTS IN 2024**

### **Workforce Market Assessment**

Between February and November 2024, I-REN conducted an energy workforce assessment, analyzing energy workforce gaps, employer needs, and existing training opportunities in Riverside and San Bernardino counties. Findings from the assessment highlight significant energy job growth (25% by the year 2030), high retirement rates and transfer rates (75%), and skill gaps among job seekers, emphasizing the need for training in clean energy technologies and equitable access to programs. Released in December 2024, the assessment recommends to:

- **CONNECT** job seekers to training
- **ENHANCE** support services
- **STRENGTHEN** the education-to-career pipeline
- **FOSTER** collaboration between employers and training providers to meet the region's growing energy workforce demands

### **Local Energy Employer Survey**

I-REN surveyed local energy employers to collect local stakeholder feedback on energy employers' hiring/training needs and challenges. I-REN received input from 385 local energy employers. Key findings of the survey included:

- **HIRING AND RETENTION CHALLENGES:** Employers indicated difficulties with hiring and retention due to limited financial and career growth opportunities, skill gaps, competitive labor market, and retirements.

- **SKILLS AND EXPERIENCE GAPS:** Employers generally indicated that employees lack technical, workplace, and interpersonal skills equally, indicating need for a multifaceted approach to addressing skill gaps. Employers generally seek candidates with a balanced skillset of education, certifications, and hands-on experience.
- **BARRIERS TO ACCESSING TRAINING:** These challenges are mostly related to high training costs and limited access to or knowledge of programs.

*I-REN 2024 Workforce Assessment*



**Q: What’s driving employee retention challenges in the energy industry?**

- A:**
- Limited financial and career growth opportunities
  - Skill gaps
  - Competitive labor market
  - Retirements



**Q: What’s keeping employees and job seekers from accessing certifications/trainings?**

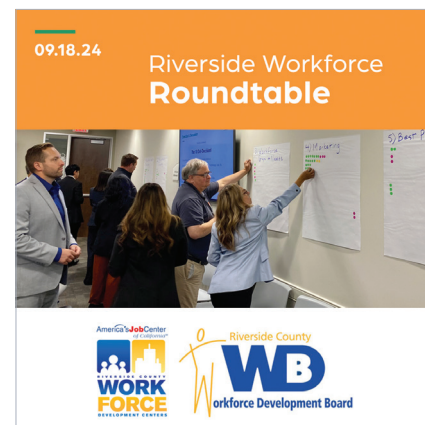
- A:**
- High training costs
  - Limited access to relevant programs
  - Insufficient opportunities to address skill gaps

**Quarterly Workforce Roundtables**

In September and December 2024, I-REN hosted a total of six working group roundtables at each of the unique subregions of the I-REN subregion (Eastern Riverside County—Coachella Valley, Western Riverside County, and San Bernardino).

In September, the roundtables provided valuable insight that led to the development of the Energy Workforce Gaps Assessment. In December, the roundtables helped prioritize the key recommendations identified in the report. This prioritization of recommendations was affirmed by the I-REN Executive Committee in January 2025 and will inform the development or expansion of I-REN WE&T programming within the I-REN territory. The prioritization includes plans to:

- **FOSTER** collaboration between employers and training providers to meet the region’s growing energy workforce demands
- **STRENGTHEN** the education-to-career pipeline
- **CONNECT** job seekers to training
- **ENHANCE** support services



Roundtable participation included 56 participants from 45 organizations. Organizations included cities, chambers of commerce, both I-REN counties’ workforce departments, both counties’ economic development departments, Southern California Edison, Southern California Gas Company, local educational institutions (both public and private), and various local workforce and training organizations.

### I-REN Energy Science Fair Awards

In 2024, I-REN supported the San Bernardino County Superintendent of Schools by sponsoring the I-REN Energy Science Fair awards at the San Bernardino, Inyo, and Mono Counties Science and Engineering Fair, which is an annual competition of science projects from students who attend the schools in each county. I-REN evaluated projects in the energy category at the elementary, junior, and high school divisions. Evaluations included four projects in the elementary division, four projects in the junior division, and three projects in the senior division in the energy, sustainable materials, and design category.

- **ELEMENTARY DIVISION:** Which Energy Is Most Efficient for Cars?
- **JUNIOR DIVISION:** Can Electronics Use Plants as a Conduit?
- **SENIOR DIVISION:** Sand Battery

The aforementioned project teams received the I-REN Energy Science Fair Award and joined I-REN at the April 2024 I-REN Executive Committee where the students received recognition for the hard work and dedication on their projects in the field of energy. Furthermore, the senior division advanced to win a gold medal at the California Science and Engineering Fair, and was a finalist at the International Science and Engineering Fair.

#### *I-REN Energy Science Fair Award Winners*



**I-REN WE&T Partnership Opportunities**



**EXPLORE** resources and potential partnerships for K–12, community colleges, and universities for energy career pathways.



**CREATE** and provide job training, certifications, and innovations related to the energy field with industry stakeholders.



**HOST** an energy efficiency job fair.



**DEVELOP** a virtual training learning center for energy efficiency.

**Inland Empire Desert Regional Consortium (IEDRC)/I-REN 2024 Energy Infrastructure and Section Showcase**

In partnership and collaboration with the IEDRC, I-REN hosted an event with over 130 attendees. It was a one-stop shop within the energy workforce system that brought together Inland Empire community colleges, local agency staff, and workforce organizations. The participants focused on the issues, barriers, and resources to help connect, identify, and have conversations to further develop the local workforce training initiatives.

**Science and Technology Education Partnership (STEP)**



STEP was developed 25 years ago to “inspire students to pursue careers in STEM” across the Inland Empire. In 2024, I-REN began supporting STEP programs as it looks to expand its offerings within the energy sector and to schools and areas considered to be more HTR or underserved. On March 7, 2024, I-REN received the exemplary STEP participation award from the STEP organization. Each year, STEP hosts three STEPcon events: one for students, one for educators, and one for counselors. In 2024, STEPcon reached and provided resources and services to 6,921 students (1,279 in person and 5,642 virtually), 153 educators, and 134 counselors.

## Local Government Sustainable Energy Coalition

The Local Government Sustainable Energy Coalition (LGSEC) is a statewide membership network representing local government interests related to EE, clean energy, and climate resilience to state regulatory agencies. Together, LGSEC members advance sustainable energy and climate solutions to meet California’s decarbonization goals through knowledge exchange, targeted learning opportunities, and statewide collaboration. I-REN offers its member agencies a sponsored, one-year membership with the LGSEC. As of February 2025, I-REN has signed up 12 agencies for LGSEC membership and encourages their participation in the energy policy landscape. Participants include the Cities of Canyon Lake, Colton, Corona, Jurupa Valley, Lake Elsinore, Palm Springs, Rancho Cucamonga, San Jacinto, Temecula, Twentynine Palms, the County of Riverside, and the Town of Apple Valley.

## OPPORTUNITIES IN 2025 AND BEYOND

### Workforce Market Assessment (Implementation)

Based on the I-REN Workforce Roundtable and I-REN Executive Committee’s prioritization of the recommendations identified in the I-REN Energy Workforce Gaps Assessment, staff will work to implement program development or enhancements that support in progressing education and training in energy pathways in the I-REN territory.

### I-REN Implemented CPUC Supplier Diversity Workshop



In October 2024, I-REN participated in the CPUC’s Supplier Diversity Expo and En Banc. Here staff met with CPUC and utility supplier diversity teams and learned about opportunities to engage local Inland Empire small and diverse businesses with supplier diversity program information. After further research, staff identified that fewer than 700 local businesses are certified in the CPUC Supplier Clearinghouse. In 2025, I-REN will be developing a workshop that brings speakers from the CPUC and utilities to share supplier diversity information with many of the local chambers of commerce and diverse businesses in the I-REN region. The goal is to engage more than 100 local businesses.

### Focused Collaborations with Riverside and San Bernardino County Workforce Development Departments

I-REN staff has the opportunity to work with both County Workforce Development Departments to shape the training, education, and workforce development pathways of energy and green sector careers. I-REN has a guiding priority of key recommendations, and both counties have four-year development plans, each with shared visions that can lead to the collaboration and joint development of energy workforce development opportunities that have the potential to be significantly impactful.

# I-REN-WET-002: WE&T Workforce Development Program

## PROGRAM DESCRIPTION

I-REN will convene and collaborate with state, regional, and local stakeholders—including workforce investment boards (WIBs) and economic development departments—to develop a unified mission around the region’s EE workforce, highlighting pathways for job seekers to enter the green jobs market and to increase access for DACs. I-REN will facilitate identifying opportunities for employers and local workforce partners to network and connect.

With its governing agencies’ existing networks of contractors and training providers, I-REN is well positioned to help bridge the gap between the energy industry and the workforce. I-REN is building partnerships with local community colleges, local universities, and local WIBs to establish a comprehensive network of WE&T offerings. I-REN also brings close connections with government planning and building departments across the region. I-REN’s WE&T initiatives offer important opportunities for collaboration across other sectors through its work in the Public Sector and C&S—both of which are important drivers of EE and advanced energy activity and employment in the region.

## ACCOMPLISHMENTS IN 2024

### I-REN Energy Fellowship

In 2024, the I-REN WE&T Program deployed 14 I-REN Energy Fellows with public sector agencies. Historically, public sector agencies in the I-REN region have lacked the capacity to track, monitor, implement, and comply with various energy and environmental statewide goals and requirements. The I-REN Fellows address this barrier by supporting and filling organizational capacity needs related to EE project identification; energy building identification and benchmarking; climate/energy action planning; outreach of workforce education & training into the communities; and other sustainability initiatives.

As of February 2025, there are 26 projects in I-REN’s Public Sector Cash for Kilowatts incentive program queue from 12 agencies where an I-REN Energy Fellow has direct involvement in the project and process for completion. Four agencies that have retained a Fellow for a second year are moving forward with energy efficiency projects that their I-REN Energy Fellow is actively coordinating. These 26 projects amount to a total estimated annual energy bill savings of \$272,867, and an overall energy savings of 1,070,513 kWh/yr, and 5,329 therms/yr. The most impressive result of having Fellows working within the agencies is the incentive dollars they have been able to secure for their respective site hosts.

26

Projects from  
12 agencies

\$272,867

Estimated annual  
energy bill savings

1,070,513

kWh/year overall  
energy savings

## Currently **\$1,126,104 in savings** has been allocated to agencies for energy efficiency projects utilizing a Fellow.

That figure is expected to rise as seven of the projects are still in the initial project identified phase and incentive dollars have not been fully factored in yet. Currently, nearly 40% of all the incentive dollars within the public sector pipeline are allocated to projects utilizing an I-REN Energy Fellow. In line with that figure, 35% of the annual energy savings within the total public sector pipeline is tied to projects utilizing an I-REN Energy Fellow.

The I-REN Energy Fellowship Program is not only providing valuable support for agencies within the region, but it is also providing an avenue to increase energy savings and participation in I-REN’s public sector project pipeline. The host sites are receiving no-cost project management as well as potential energy savings through their involvement in the public sector arm of I-REN. The I-REN Energy Fellowship Program was designed to place highly engaged individuals in public sector positions to gain experience and practice energy related work, but the end result has impacted the site agencies and the energy efficiency landscape much more significantly. The collaboration among sectors allows the Workforce Education & Training sector to directly support the realization of energy savings. This underscores the opportunity and need for more Fellows to be placed within the region, which is part of I-REN’s workforce development plans for 2025.

### I-REN WE&T Energy Fellowship Overview



#### Paid Local Fellowship

Jumpstart your career in the clean energy economy. In partnership with CivicSpark, an AmeriCorps program, the I-REN Energy Fellowship offers a unique opportunity for individuals passionate about energy, environmental sustainability, and community resilience to gain professional experience in the public sector through national service at the local level.

By building capacity for local public agencies to address emerging resilience challenges, I-REN Fellows create a lasting impact in local communities while building a robust statewide network of peers and gaining technical and leadership skills.

##### Benefits

- Living allowance of \$35,000 (before taxes)\* in CA
- Educational awards (Segal Education and California For All Award) up to \$7,395 upon completion\*
- Health insurance and childcare assistance for qualifying Fellows, paid to an eligible provider of your choice
- SNAP (food stamps) for eligible participants
- Forbearance on existing qualifying student loans and payment of interest accrued during the service term
- Professional development training
- Network development with regional and statewide contacts in the community resilience industries
- Connection to the AmeriCorps network of alums

##### Requirements

- Minimum of a 2-year AA degree from an accredited college or university
- Commitment to the full term of service (11 months)
- Ability to work in a professional virtual/office setting
- Strong communication (both verbal and written) and teamwork skills
- Additional preferred qualifications are listed on our website

To learn more, visit [iren.gov/energy-fellowship](http://iren.gov/energy-fellowship) or scan the code.



\*Pending state approval/spread evenly over 11 months

#### FELLOWSHIP PROJECT EXAMPLES:

- Facility Audits
- Billing Rate Analysis
- Community Outreach
- Energy Efficiency Facility Identification

## Job Fairs

I-REN attended approximately 16 job fairs in 2024. Through these job fairs, the I-REN team collected 203 interested job seeker slips from individuals interested in the I-REN Energy Fellowship or hearing about I-REN workforce resources. Some of these job fairs were conducted in partnership with Energy is Everything. I-REN has a system to collect interested job seeker forms from prospective candidates. The information is compiled into a listserv. I-REN notifies the candidates registered in the listserv when the Energy Fellowship application is open, which may result in an Energy Fellow placement with a member agency.

### I-REN WE&T Job Fair Events



## OPPORTUNITIES IN 2025 AND BEYOND

In 2025, the I-REN WE&T team plans to expand opportunities for I-REN Energy Fellowships at public agencies in the region, to support the growing pipeline of public sector NMEC projects in the I-REN Cash for Kilowatts program. I-REN will also expand educational offerings for Energy Fellows.

### Experiential Learning for I-REN Energy Fellows

After surveying the first-year I-REN Energy Fellows, I-REN identified an opportunity to enhance and support their development through experiential learning that would help advance their technical and project management skills in the industry. The current schedule of professional development tours and resources developed for the 2024–2025 Fellowship program year includes:

- December 2024: Regional Energy and Climate Hub (REACH) Inland Empire
- January 2025: I-REN Community Resilience Center Workshop
- February 2025: I-REN Energy Fellow ESRI Tour
- March 2025: IEDRC/I-REN Energy Infrastructure and Sector Showcase

- March 2025: I-REN Energy Fellow California Air Resources Board Tour
- April 2025: I-REN Energy Fellow CR&R Anaerobic Digester Tour
- May 2025: I-REN Energy Fellow Grid Alternative Tour
- June 2025: I-REN Energy Fellow Watt EV Tour
- July 2025: California Climate Energy Forum Fellowship participation opportunity

### March 2025 Energy and Infrastructure Showcase Planned in Partnership with IEDRC

The purpose of the event is to be a one-stop energy workforce ecosystem that brings together Inland Empire community colleges, local agency staff, and workforce organizations. The participants will focus on the issues, barriers, and resources to help connect, identify, and have conversations to determine training opportunities to help develop a green energy pathway for job seekers in the region.

## Sector-wide Workforce Collaborations

In alignment with I-REN’s workforce objectives from its Business Plan, I-REN serves as a facilitator and convener, bringing together a wide variety of workforce development and educational providers in the region to address the region’s workforce needs related to energy efficiency, decarbonization, and resiliency. I-REN workforce collaborations over the past two years are shown below.

### *I-REN WE&T Sector-wide Collaborations*

#### **2023**

- Associated Builders and Contractors  
Inland Empire Branch
- Barstow Community College
- California Baptist University
- CSUSB
- Chino Valley Chamber of Commerce
- CivicWell California Adaptation Forum
- Construction Trades Workforce Initiative
- Energy Code Ace
- Goodwill Career Resources Inland Empire
- Inland Empire Community Colleges  
Job Developers
- Inland Empire Desert Regional Consortium
- James Irvine Foundation
- LAUNCH Apprenticeship Network
- Local Employment Development Department  
Veterans Division
- Mount San Jacinto College
- Riverside City College Guardian scholars
- Riverside County Office of Education
- San Bernardino City Unified School District
- San Bernardino County Superintendent of Schools
- San Geronimo High School  
(Jobs 4 California Graduates)
- Southern California Energy Innovation Network
- Time for Change Foundation
- Tomorrow’s Talent
- Youth Action Project

**2024**

- California Employment Development Departments – Veterans Division
- California State University, San Bernardino
- Center for Employment Training
- College of the Desert
- Desert Valley Builders Association
- Eastvale Chamber of Commerce
- Energy is Everything
- Greater Coachella Valley Chamber of Commerce
- GRID Alternatives
- Inland Economic Growth & Opportunity
- Inland Empire Economic Partnership
- Inland Empire Labor Institute
- Inland Southern California Climate Collaborative
- Institute of Heating and Air Conditioning Industries
- Local Government Sustainable Energy Coalition
- Norco College
- Public Health Institute/CivicSpark
- Redlands Chamber of Commerce
- Riverside County Office of Economic Development
- Riverside County Workforce Development
- San Bernardino County Economic Development
- San Bernardino Valley College
- San Bernardino Workforce Development Department
- Science and Technology Education Partnership
- Thrive Inland SoCal
- University of California, Riverside
- Uplift San Bernardino
- Victor Valley College CTE

03.

Total System Benefit

04.

Savings by End Use

05.

Environmental Impacts

# Total System Benefit

## 2024 Total System Benefit, Net First Year Savings & Goal Attainment

	Total System Benefit (TSB)	GWh	MW	MMTherms
	Portfolio - Non C&S	Codes & Standards (C&S)		
2024 TSB and Total Installed Portfolio Savings	\$101,864	n/a	n/a	n/a
Adopted 2024 Targets (D.23-08-005)	\$172,737	n/a	n/a	n/a
Percentage of goal attainment	59%	n/a	n/a	n/a
2024–2027 Cumulative TSB and Total Installed Portfolio Savings	\$101,864	n/a	n/a	n/a
Adopted 2024-2027 Goals (D.23-08-005)	\$2,442,661	n/a	n/a	n/a
Percentage of Progress Towards 4-year Goal	4%	n/a	n/a	n/a

# Savings by End Use

## 2024 Annual Net Savings by End Use

End-use Category	kWh	Percentage of Total
Whole Building	156,290	100%
<b>Total Portfolio Savings</b>	<b>156,290</b>	<b>100%</b>

# Environmental Impacts

## Environmental Impact (Net Metric Tons of Avoided Emissions)

Annual CO <sub>2</sub>	Lifecycle CO <sub>2</sub>	Annual NO <sub>x</sub>	Lifecycle NO <sub>x</sub>	Annual PM10	Lifecycle PM10
49	711	0.004926261	0.024631306	0.004270159	0.021350796

# 06. Expenditures

I-REN's 2024 budget and expenditures are shown below.

#### *I-REN 2024 Budget Forecast*

Program ID	Program Name	2024 Budget
IREN-PUBL-001	Technical Assistance and Strategic Energy Planning Program	\$3,062,464.73
IREN-PUBL-002	Public Buildings NMEC Program	\$2,600,713.94
IREN-CS-001	C&S Training and Education Program	\$983,912.05
IREN-CS-002	Technical Support Program	\$652,782.63
IREN-WET-001	WE&T Training and Education Program	\$1,242,206.71
IREN-WET-002	Workforce Development Program	\$1,558,915.14
<b>Program Subtotal</b>		<b>\$10,100,995.20</b>
IDSM		\$243,000.00
Portfolio Support PA Costs		\$664,950.27
EM&V		\$458,706.06
<b>Total I-REN 2024 Budget Forecast</b>		<b>\$11,467,651.53</b>

#### *I-REN 2024 Actuals*

Program ID	Admin	Marketing & Outreach	Direct Implementation	Incentives	Total
IREN-PUBL-001	\$370,797.11	\$50,660.05	\$2,371,252.26	\$0.00	\$2,792,709.42
IREN-PUBL-002	\$275,684.89	\$31,727.83	\$1,378,221.93	\$0.00	\$1,685,634.65
IREN-CS-001	\$47,521.56	\$15,632.87	\$620,073.94	\$0.00	\$683,228.37
IREN-CS-002	\$40,903.10	\$11,449.61	\$199,321.72	\$0.00	\$251,674.43
IREN-WET-001	\$248,202.54	\$11,581.39	\$501,492.20	\$0.00	\$761,276.13
IREN-WET-002	\$98,917.59	\$11,581.39	\$384,616.34	\$0.00	\$495,115.32
IREN-EMV-001	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
IREN-MS-Portfolio Support	\$8,965.85	\$0.00	\$0.00	\$0.00	\$8,965.85
IREN-CS-Portfolio Support	\$8,965.85	\$0.00	\$0.00	\$0.00	\$8,965.85
IREN-IDSM-Equity-001	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
IREN-Equity-Portfolio Support	\$35,863.53	\$0.00	\$0.00	\$0.00	\$35,863.53
<b>I-REN Total</b>	<b>\$1,135,822.02</b>	<b>\$132,633.14</b>	<b>\$5,454,978.39</b>	<b>\$0.00</b>	<b>\$6,723,433.55</b>

# 07.

# Cost- Effectiveness



California’s statewide EE portfolio, which includes I-REN’s programs, is cost-effective from an overall perspective as described recently by the CPUC’s report<sup>7</sup> in response to Governor Newsom’s Executive Order N-5-24.<sup>8</sup>

Within the overall EE portfolio, the CPUC has authorized I-REN and other RENs to offer EE programs that are not held to a cost-effectiveness threshold, “because the RENs are inherently designed to take on filling gaps in the other larger portfolios or serving the needs of HTR customer segments/markets that will be naturally less cost-effective to serve.”<sup>9</sup> Similarly, the IOU PAs and MCE are permitted to dedicate 30% of their budgets toward programs focused on advancing equitable access to EE and supporting the long-term growth of markets for EE—programs which are not subject to cost-effectiveness thresholds. RENs and the equity and market support segments of the portfolio were created in order to ensure that these policy priorities are advanced within the statewide EE portfolio, which is cost-effective on an overall basis.

While not subject to a cost-effectiveness threshold, I-REN strives to manage its portfolio “with an eye toward long-term cost-effectiveness,” as encouraged by CPUC,<sup>10</sup> as a good steward of ratepayer dollars. As noted in D.21-11-013, the CPUC decision approving I-REN’s Business Plan, CPUC welcomes I-REN’s focus on equity and serving disadvantaged and underserved communities, stating that:

“*Involving the types of customers and communities that I-REN’s Business Plan will serve is important to help California meet its energy and climate goals.*”<sup>11</sup>

<sup>7</sup> CPUC Response to Executive Order N-5-24. Table A-2. Program list.

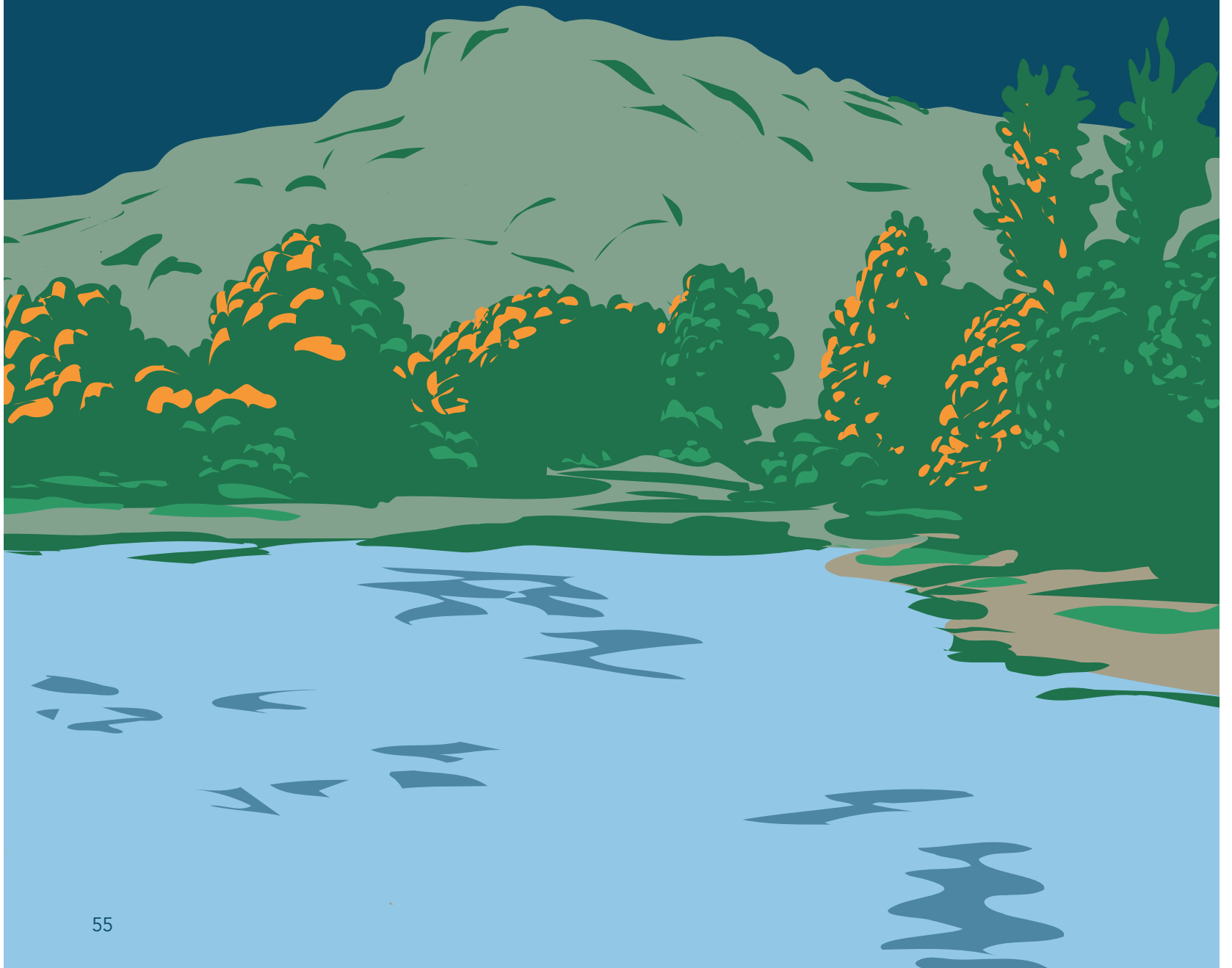
<sup>8</sup> Executive Order N-5-24 (2024). <https://www.gov.ca.gov/wp-content/uploads/2024/10/energy-EO-10-30-24.pdf>

<sup>9</sup> D.19-12-021 at 37

<sup>10</sup> D.16-08-019 at 12.

<sup>11</sup> D.21-11-013 Conclusions of Law 7 and 8.

# 08. — Metrics



## Unique Value Metrics

D.19-12-021 directed proponent RENs to “demonstrate new and unique value toward California’s energy, climate, and equity goals”<sup>12</sup> and then file their progress toward their proposed unique value metrics once they were approved and operating.

### *I-REN Unique Value Metrics*

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#### Percentage of partner jurisdictions that use I-REN guides and tools for code compliance

##### Codes & Standards

One of I-REN’s key unique strengths is its relationships with local governments through the founding agencies’ work as councils/associations of governments. This metric is intended to show I-REN’s progress on leveraging those relationships to engage with jurisdictions on C&S permitting and code compliance.

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#### Number of BUC registrations in partner jurisdictions (total users)

##### Public Sector

BUC registration is the entry point to accessing I-REN technical assistance services. The BUC portal allows for exploring possible savings opportunities for projects that Public Sector Program participants could pursue via I-REN NMEC program and/or other PAs’ programs. BUC also offers the ability to establish and maintain ongoing relationships and associated data.

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#### Number of Fellows placed within partner jurisdictions

##### Workforce Education & Training

I-REN Fellowships are a crucial quick-start activity for WE&T and also provide cross-cutting benefits for Public Sector and C&S. Fellows play a role as EE champions at local jurisdictions to help advance EE projects in coordination with I-REN Public Sector technical assistance, such as benchmarking or strategic energy planning. Fellows can supplement staff capacity to take on NMEC or other incentive projects and support permitting and code compliance with I-REN C&S support.

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<sup>12</sup> D.19-12-021 Conclusion of Law 9.

## Equity and Market Support Indicators and Goals

D.23-06-055 adopted objectives and indicators for the equity and market support segments and designated how often indicators should be reported (quarterly or annually) and at what level (segment or whole portfolio). I-REN was an active participant in the Equity and Market Support Working Group formed by CAEECC to clarify the indicators through a stakeholder process, and joined with other PAs and stakeholders to draft the resulting May 1, 2024 joint PA advice letter (I-REN Advice Letter 5-E/5-G) as ordered in D.23-06-055 Ordering Paragraph 11. The joint PA advice letter clarified the equity and market support indicators; proposed modifications to the common metrics adopted in D.18-05-041; recommended a methodology to determine indicator baselines; and laid out a suggested schedule for tracking and reporting of equity and market support indicators and updated common metrics and indicators.

The resolution addressing the joint PAs' advice letter has not yet been issued. However, I-REN worked proactively in 2024 to adopt a framework—including methodology and data collection processes—to begin tracking these indicators in anticipation of the forthcoming resolution from CPUC and reporting requirements to follow. I-REN is well situated to fulfill its obligations to track progress toward the equity and market support indicators.

Relatedly, I-REN has also been an active participant in the joint PA effort to develop equity and market support goal constructs, as directed by D.23-06-055 Ordering Paragraph 25. This effort began in 2024 and continues in 2025.

## D.18-05-041 Common Metrics

In addition to clarifying the adopted equity and market support indicators, D.23-06-055 Ordering Paragraph 11 also ordered PAs to examine the metrics and indicators adopted in D.18-05-041. I-REN participated in the joint advice letter process as described above, and was an active participant in proposing modifications to these metrics and indicators. While awaiting resolution of the joint advice letter, I-REN continued to track all relevant common metrics in 2024.

# 09.

# Commitments

I-REN has planned and budgeted for funds to be committed to numerous activities to support its portfolio in 2025 and beyond, including contracts with implementers, consultants, and vendors.

*A total of **\$220,872.48** in incentives have been reserved in 2024 for disbursement in program years 2025–2026 for projects under I-REN’s Cash for Kilowatts program.*



**ITEM 8A**

**ENERGY AND SUSTAINABILTY COMMITTEE  
ATTENDANCE RECORD  
FY 2024-2025**

<b>VOTING MEMBERS</b>	<b>JUL</b>	<b>AUG</b>	<b>SEP</b>	<b>OCT</b>	<b>NOV</b>	<b>DEC</b>	<b>JAN</b>	<b>FEB</b>	<b>MAR</b>	<b>APR</b>	<b>MAY</b>	<b>JUNE</b>
Agua Caliente Band of Cahuilla Indians	-	-	█	-	█	-	-	█	-	█	**	**
City of Blythe	-	-	✓	-	✓	-	-	█	-	✓	-	-
City of Cathedral City	-	-	✓	-	✓	-	-	✓	-	✓	-	-
City of Coachella	-	-	█	-	█	-	-	✓	-	✓	-	-
Coachella Valley Water District	-	-	✓	-	✓	-	-	✓	-	█	-	-
City of Desert Hot Springs	-	-	✓	-	✓	-	-	✓	-	✓	-	-
Imperial Irrigation District	-	-	✓	-	✓	-	-	✓	-	█	-	-
City of Indian Wells	-	-	✓	-	✓	-	-	✓	-	✓	-	-
City of Indio	-	-	✓	-	✓	-	-	✓	-	✓	-	-
City of La Quinta	-	-	✓	-	✓	-	-	✓	-	✓	-	-
Mission Springs Water District	-	-	✓	-	✓	-	-	✓	-	✓	-	-
City of Palm Desert	-	-	✓	-	✓	-	-	✓	-	✓	-	-
City of Palm Springs	-	-	✓	-	✓	-	-	✓	-	✓	-	-
City of Rancho Mirage	-	-	✓	-	✓	-	-	✓	-	✓	-	-
Riverside County - District 4	-	-	✓	-	✓	-	-	✓	-	✓	-	-
Torres Martinez Desert Cahuilla Indians	-	-	✓	-	✓	-	-	✓	-	█	-	-
<b>EX-OFFICIO / NON-VOTING MEMBERS</b>												
Desert Water Agency	-	-	█	-	█	-	-	█	-	█	-	-
Riverside County - District 5	-	-	█	-	█	-	-	█	-	█	-	-

Absent   
 Vacancy \*\*

No Meeting   
 Present

## **ITEM 8B**

# Coachella Valley Association of Governments Energy & Sustainability Committee May 8, 2025



## **STAFF REPORT**

**Subject:** Urban and Community Forestry Program – Shade Trees for Southern California’s Deserts

**Contact:** Emmanuel Martinez, Program Manager – External Affairs ([emartinez@cvaq.org](mailto:emartinez@cvaq.org))

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### **Recommendation: Information**

**Background:** Increasing shade through the planting of native and drought tolerant trees provides cooling and environmental benefits and has been a key priority of the Energy & Sustainability Committee. To capitalize on related opportunities, in early 2024, CVAG partnered with the Imperial Irrigation District (IID) to secure \$2.9 million through the California Department of Forestry and Fire Protection’s (Cal Fire) Urban and Community Forestry (UCF) Program. After some uncertainty about whether the federally funded grant would still be available under the current administration, signs are pointed in a positive direction for the project.

The proposal from IID and CVAG secured \$2.9 million for the Shade Trees for Southern California’s Deserts program, which would lead to planting 6,000 trees across eastern Riverside and Imperial Counties. In the last update to the Energy & Sustainability Committee, it was noted that the application was under final review of the scope and budget. This component of the work has now been approved and finalized. Additionally, all work related to the UCF program was paused as the federal government reviewed grant programs to reconcile them with the federal administration’s priorities. On April 9, 2025, IID and CVAG were notified by CalFire to move forward with the process and issued the grant agreement which IID executed and returned on April 14. Currently, IID and CVAG are waiting for Cal Fire to execute the grant agreement and provide the notice to proceed.

The federal funding for this program stems from the Inflation Reduction Act (IRA), which in 2022 allocated \$1.5 billion in new funding for the United States Department of Agriculture’s (USDA) Urban and Community Forestry (UCF) Program. The goals of the program are to increase equitable access to urban tree canopy and associated health, environmental and economic benefits, with a focus on disadvantaged communities; broaden community engagement in urban forest planning; and increase resilience to climate change and extreme heat.

As part of the IRA funding, the State of California received a state allocation through the formula component of the IRA UCF, of which \$30.8 million was made available for grant projects at a community, regional, or statewide scale. Leveraging the past work, as well as IID’s Tree for All Program, which is a popular oversubscribed program, CVAG and IID partnered again to submit grant to Cal Fire’s UCF program. The Cal Fire UCF program provided six grant types, each of which have specific requirements. CVAG and IID applied under the Urban Forestry Regional or Statewide Impact, which provided funding for projects implemented throughout a large

geographic area. This category also provided for the largest maximum funding amount, which is \$3 million (all other categories' maximum grant request was capped at \$1.5 million).

The Shade Trees for Southern California Deserts will significantly boost urban greening efforts in Imperial and Riverside County. The grant proposal is a 3-year, 6,000 tree planting project, of which half will go to the Coachella Valley and the other half to Imperial County communities served by IID. The proposed project will focus on planting 15-gallon trees in disadvantaged communities and underrepresented demographic groups with environmental, social, and economically identified needs. Using a two-pronged approach, 50% of trees will be planted in residential homes, and 50% will be planted in public spaces.

**Fiscal Analysis:** IID and CVAG submitted a \$2,975,163 grant request to Cal Fire's UCF program. Although matching funds are not required given that all benefits must accrue to disadvantaged communities, to increase the competitiveness of CVAG and IID's proposal, the cost share or match proposed is \$500,000, of which \$20,000 in staff time would be committed by CVAG to support outreach, education and coordination efforts in the Coachella Valley over the three-year grant period. The remaining matching funds are allocated by IID.

CVAG staff will continue to work with IID and Cal Fire staff to finalize the scope of work and execute the final grant agreement.