

# SDG&E's Business Energy Solutions Program

## 2023 Product Catalog



Product Code	Product Description	Unit	Co-pay / No Co-pay	Instant Rebate (\$)	Contractor
<b>LIGHTING</b>					
<b>LED T8 Lamps – UL Type A</b>					
463991	4-foot Interior LED T8 Lamp – UL Type A (AR)	Lamp	No Co-pay	N/A	Willdan
467154	4-foot Parking Garage LED T8 Lamp – UL Type A (AR)	Lamp			
<b>LED T8 Lamps – UL Type B</b>					
469182	4-foot Interior LED T8 Lamp – UL Type B (NR)	Lamp	No Co-pay	N/A	Willdan
469183	4-foot Parking Garage LED T8 Lamp – UL Type B (NR)	Lamp			
469174	4-foot Interior LED T8 Lamp – UL Type B (AR)	Lamp			
469175	4-foot Parking Garage LED T8 Lamp – UL Type B (AR)	Lamp			
<b>LED T8 Lamps – UL Type C</b>					
469184	2-lamp Fixture with 4-foot Interior LED T8 Lamps – UL Type C	Fixture	Co-pay	6.00	Willdan
469185	2-lamp Fixture with 4-foot Parking Garage LED T8 Lamps – UL Type C	Fixture		6.00	
469186	3-lamp Fixture with 4-foot Interior LED T8 Lamps – UL Type C	Fixture		10.00	
469187	3-lamp Fixture with 4-foot Parking Garage LED T8 Lamps – UL Type C	Fixture		10.00	
469188	4-lamp Fixture with 4-foot Interior LED T8 Lamps – UL Type C	Fixture		13.00	
469189	4-lamp Fixture with 4-foot Parking Garage LED T8 Lamps – UL Type C	Fixture		13.00	
<b>LED High Bay Luminaires</b>					
467615	Interior LED High Bay Luminaire: 9400 - 11799 lumens, > 130 LPW and <150 LPW	Fixture	Co-pay	13.00	Willdan
467616	Interior LED High Bay Luminaire: 11800 - 14799 lumens, > 130 LPW and <150 LPW	Fixture		13.00	
467617	Interior LED High Bay Luminaire: 14800 - 18499 lumens, > 135 LPW and <150 LPW	Fixture		13.00	
467618	Interior LED High Bay Luminaire: 18500 - 23099 lumens, > 135 LPW and <150 LPW	Fixture		25.00	
467619	Interior LED High Bay Luminaire: 23100 - 29999 lumens, > 135 LPW and <150 LPW	Fixture		25.00	
467620	Interior LED High Bay Luminaire: 30000 - 38999 lumens, > 135 LPW and <150 LPW	Fixture		25.00	
467621	Interior LED High Bay Luminaire: 39000 - 50699 lumens, > 140 LPW and <150 LPW	Fixture		25.00	
467622	Interior LED High Bay Luminaire: 50700 - 65899 lumens, > 140 LPW and <150 LPW	Fixture		25.00	
<b>Custom Lighting</b>					
469332	Lighting - Interior LED - MR-A -PAR - AR	Fixture	Varies	Varies	Willdan
469387	Lighting - Interior LED New Luminaire - AR	Fixture		Varies	
469388	Lighting - Interior Integrated LED Retrofit - AR	Fixture		Varies	
469389	Lighting - Interior LED New Luminaire - NR	Fixture		Varies	

Product Code	Product Description	Unit	Co-pay / No Co-pay	Instant Rebate (\$)	Contractor
<b>Custom Lighting (continued)</b>					
469390	Lighting - Interior Integrated LED Retrofit - NR	Fixture	Varies	Varies	Willdan
469532	Lighting - Interior LED - MR-A -PAR - NR	Fixture		Varies	
469533	Lighting - LED Surface, Pendant, Track, Accent, and Recessed Downlight - NR	Fixture		Varies	
469535	Lighting - LED Surface, Pendant, Track, Accent, and Recessed Downlight - AR	Fixture		Varies	
469536	Lighting - Exterior LED - Other - AR	Fixture		Varies	
469537	Lighting - Exterior LED - Other - NR	Fixture		Varies	
<b>FOOD SERVICE</b>					
<b>Combination Ovens</b>					
469919	Combination Oven: < 15 Pans – Electric	Each	Co-pay	1,200.00	Willdan
469920	Combination Oven: 15 - 28 Pans – Electric	Each		1,200.00	
469921	Combination Oven: > 28 Pans – Electric	Each		2,000.00	
469922	Combination Oven: < 15 Pans – Gas	Each		1,100.00	
469923	Combination Oven: 15 - 28 Pans – Gas	Each		1,000.00	
469924	Combination Oven: > 28 Pans – Gas	Each		2,000.00	
<b>Griddles</b>					
469925	Griddle – Electric	Linear Ft.	Co-pay	200.00	Willdan
469926	Griddle – Gas	Linear Ft.		100.00	
<b>Steam Cookers</b>					
469927	Steam Cooker – Electric	Each	Co-pay	2,800.00	Willdan
469928	Steam Cooker – Gas	Each		1,800.00	
<b>Ice Machines</b>					
469929	SCU Ice Machine: < 110 lbs./day	Each	Co-pay	150.00	Willdan
469930	SCU Ice Machine: 110 - 200 lbs./day	Each		175.00	
469931	SCU Ice Machine: > 200 lbs./day	Each		220.00	
469932	IMH Ice Machine: < 300 lbs./day	Each		200.00	
469933	IMH Ice Machine: 300 - 799 lbs./day	Each		270.00	
469934	IMH Ice Machine: 800 - 1499 lbs./day	Each		400.00	
469935	IMH Ice Machine: > 1500 lbs./day	Each		500.00	
469936	RCU Ice Machine: < 988 lbs./day	Each		395.00	
469937	RCU Ice Machine: > 988 lbs./day	Each		500.00	
<b>Demand Ventilation Controls</b>					
465990	Demand Ventilation Control – Retrofit	Rated HP	Co-pay	1500.00	Willdan
<b>Hand Wrap Machine</b>					
469938	Hand Wrap Machine – Electric	Each	Co-pay	125.00	Willdan

Product Code	Product Description	Unit	Co-pay / No Co-pay	Instant Rebate (\$)	Contractor
<b>Low Flow Pre-Rinse Spray Valves</b>					
465999	Low-flow Pre-Rinse Spray Valve: 0.75 - 1.07 GPM - New	Each	No Co-pay	N/A	Willdan
466001	Low-flow Pre-Rinse Spray Valve: 0.75 - 1.07 GPM - Retrofit	Each			
466000	Low-flow Pre-Rinse Spray Valve: < 0.75 GPM – New	Each			
466002	Low-flow Pre-Rinse Spray Valve: < 0.75 GPM – Retrofit	Each			
<b>REFRIGERATION</b>					
<b>Ultra-Low Temperature Freezer</b>					
465356	Ultra-Low Temperature Freezer: $\geq 24$ and $\leq 29$ ft <sup>3</sup>	Each	Co-pay	600.00	Willdan
<b>Anti-Sweat Heater Controls</b>					
465292	Anti-Sweat Heater Controls – Low Temperature	Linear Ft.	No Co-pay	N/A	Willdan and Synergy
465294	Anti-Sweat Heater Controls – Medium Temperature	Linear Ft.	No Co-pay	N/A	Willdan
<b>Floating Head Pressure Controls</b>					
467191	Saturated Discharge Controls – Air-cooled	Cap-Tons	Co-pay	29.00	Willdan
467195	Saturated Discharge Controls – Evaporative-cooled	Cap-Tons			
467193	Saturated Discharge Controls with Variable-Speed Fan – Air-cooled	Cap-Tons			
467197	Saturated Discharge Controls with Variable-Speed Fan – Evaporative-cooled	Cap-Tons			
<b>Suction Pipe Insulation</b>					
465489	Insulate Bare Suction Pipes – Cooler	Linear Ft.	No Co-pay	N/A	Willdan and Synergy
465493	Insulate Bare Suction Pipes – Freezer	Linear Ft.			
<b>Auto Door Closers</b>					
465337	Auto Closer for Main Cooler Doors	Each	No Co-pay	N/A	Willdan
465340	Auto Closer for Main Freezer Doors	Each	No Co-pay	N/A	Willdan
<b>WATER HEATING</b>					
<b>Faucet Aerators</b>					
464077	Faucet Aerator – Private Lavatory: 0.5 GPM	Each	No Co-pay	N/A	Willdan and Synergy
464078	Faucet Aerator – Private Lavatory: 1.0 GPM	Each			
464073	Faucet Aerator – Public Lavatory: 0.5 GPM	Each			
<b>Low-flow Showerheads</b>					
469940	Low-flow Showerhead: 1.5 GPM	Each	No Co-pay	N/A	Willdan and Synergy
469939	Low-flow Showerhead: 1.8 GPM	Each			
<b>Flow Control Valves</b>					
467943	Showerhead Flow Control Valve: 1.5 GPM	Each	No Co-pay	N/A	Willdan and Synergy
<b>Laminar Flow Restrictors</b>					
466287	Laminar Flow Restrictor: 1.2 GPM – Health Care Facilities	Each	No Co-pay	N/A	Willdan and Synergy
466285	Laminar Flow Restrictor: 1.8 GPM – Health Care Facilities	Each			

Product Code	Product Description	Unit	Co-pay / No Co-pay	Instant Rebate (\$)	Contractor
<b>Pipe/Pipe Fitting Insulation</b>					
466788	1" Pipe Insulation: Hot Water Pipe $\leq$ 1" diameter – Indoor	Linear Ft.	No Co-pay	N/A	Willdan and Synergy
466734	1" Pipe Insulation: Hot Water Pipe, $\leq$ 1" diameter – Outdoor	Linear Ft.			
466789	1" Pipe Insulation: Hot Water Pipe, $> 1"$ , $\leq 4"$ diameter – Indoor	Linear Ft.			
466735	1" Pipe Insulation: Hot Water Pipe, $> 1"$ , $\leq 4"$ diameter – Outdoor	Linear Ft.			
466790	1" Pipe Insulation: Hot Water Pipe, $> 4"$ diameter – Indoor	Linear Ft.			
466736	1" Pipe Insulation: Hot Water Pipe, $> 4"$ diameter – Outdoor	Linear Ft.			
466815	1" Fitting Insulation: Hot Water Pipe $\leq$ 1" diameter – Indoor	Each			
466761	1" Fitting Insulation: Hot Water Pipe $\leq$ 1" diameter – Outdoor	Each			
466816	1" Fitting Insulation: Hot Water Pipe, $> 1"$ , $\leq 4"$ diameter – Indoor	Each			
466762	1" Fitting Insulation: Hot Water Pipe, $> 1"$ , $\leq 4"$ diameter – Outdoor	Each			
466817	1" Fitting Insulation: Hot Water Pipe, $> 4"$ diameter – Indoor	Each			
466763	1" Fitting Insulation: Hot Water Pipe, $> 4"$ diameter – Outdoor	Each			
466791	1" Pipe Insulation: $\leq$ 15 psig Steam Pipe, $\leq$ 1" diameter – Indoor	Linear Ft.			
466737	1" Pipe Insulation: $\leq$ 15 psig Steam Pipe, $\leq$ 1" diameter – Outdoor	Linear Ft.			
466792	1" Pipe Insulation: $\leq$ 15 psig Steam Pipe, $> 1"$ , $\leq 4"$ diameter – Indoor	Linear Ft.			
466738	1" Pipe Insulation: $\leq$ 15 psig Steam Pipe, $> 1"$ , $\leq 4"$ diameter – Outdoor	Linear Ft.			
466793	1" Pipe Insulation: $\leq$ 15 psig Steam Pipe, $> 4"$ diameter – Indoor	Linear Ft.			
466739	1" Pipe Insulation: $\leq$ 15 psig Steam Pipe, $> 4"$ diameter – Outdoor	Linear Ft.			
466794	1" Pipe Insulation: $> 15$ psig Steam Pipe, $\leq$ 1" diameter – Indoor	Linear Ft.			
466740	1" Pipe Insulation: $> 15$ psig Steam Pipe, $\leq$ 1" diameter – Outdoor	Linear Ft.			
466795	1" Pipe Insulation: $> 15$ psig Steam Pipe, $> 1"$ , $< 4"$ diameter – Indoor	Linear Ft.			
466741	1" Pipe Insulation: $> 15$ psig Steam Pipe, $> 1"$ , $\leq 4"$ diameter – Outdoor	Linear Ft.			
466796	1" Pipe Insulation: $> 15$ psig Steam Pipe, $> 4"$ diameter – Indoor	Linear Ft.			
466742	1" Pipe Insulation: $> 15$ psig Steam Pipe, $> 4"$ diameter – Outdoor	Linear Ft.			
466818	1" Fitting Insulation: $\leq$ 15 psig Steam Pipe $\leq$ 1" diameter – Indoor	Each			
466764	1" Fitting Insulation: $\leq$ 15 psig Steam Pipe $\leq$ 1" diameter – Outdoor	Each			
466819	1" Fitting Insulation: $\leq$ 15 psig Steam Pipe, $> 1"$ , $\leq 4"$ diameter – Indoor	Each			
466765	1" Fitting Insulation: $\leq$ 15 psig Steam Pipe, $> 1"$ , $\leq 4"$ diameter – Outdoor	Each			
466820	1" Fitting Insulation: $\leq$ 15 psig Steam Pipe, $> 4"$ diameter – Indoor	Each			
466766	1" Fitting Insulation: $\leq$ 15 psig Steam Pipe, $> 4"$ diameter – Outdoor	Each			
466821	1" Fitting Insulation: $> 15$ psig Steam Pipe $\leq$ 1" diameter – Indoor	Each			
466767	1" Fitting Insulation: $> 15$ psig Steam Pipe $\leq$ 1" diameter – Outdoor	Each			
466822	1" Fitting Insulation: $> 15$ psig Steam Pipe, $> 1"$ , $\leq 4"$ diameter – Indoor	Each			
466768	1" Fitting Insulation: $> 15$ psig Steam Pipe, $> 1"$ , $\leq 4"$ diameter – Outdoor	Each			
466823	1" Fitting Insulation: $> 15$ psig Steam Pipe, $> 4"$ diameter – Indoor	Each			
466769	1" Fitting Insulation: $> 15$ psig Steam Pipe, $> 4"$ diameter – Outdoor	Each			

Product Code	Product Description	Unit	Co-pay / No Co-pay	Instant Rebate (\$)	Contractor
<b>Hot Water Tank Insulation</b>					
466693	1" Tank Insulation: Medium Temperature, Low Usage – Indoor	Square Ft.	No Co-pay	N/A	Willdan and Synergy
466694	1" Tank Insulation: Medium Temperature, Low Usage – Outdoor	Square Ft.			
466689	1" Tank Insulation: Medium Temperature, High Usage – Indoor	Square Ft.			
466690	1" Tank Insulation: Medium Temperature, High Usage – Outdoor	Square Ft.			
466695	1" Tank Insulation: High Temperature, Low Usage – Indoor	Square Ft.			
466696	1" Tank Insulation: High Temperature, Low Usage – Outdoor	Square Ft.			
466691	1" Tank Insulation: High Temperature, High Usage – Indoor	Square Ft.			
466692	1" Tank Insulation: High Temperature, High Usage – Outdoor	Square Ft.			
466697	2" Tank Insulation: Medium Temperature, High Usage – Indoor	Square Ft.			
466698	2" Tank Insulation: Medium Temperature, High Usage – Outdoor	Square Ft.			
466699	2" Tank Insulation: High Temperature, High Usage – Indoor	Square Ft.			
466700	2" Tank Insulation: High Temperature, High Usage – Outdoor	Square Ft.			

## LIGHTING

### GENERAL REQUIREMENTS

- Customer must have a San Diego Gas & Electric® (SDG&E) non-residential small commercial electric account.
- All new lighting fixture(s), retrofit kits, and components must carry the appropriate, designated Underwriters Laboratory (UL) or Intertek’s Electrical Testing Labs (ETL) Listed Mark, and must be Restriction of Hazardous Substances Directive (RoHS) compliant.
- In all cases, the wattage of the replacement lighting equipment must be less than the wattage of the existing lighting equipment.
- Storage warehouses (rental spaces) qualify as interior space.
- Parking garages do not qualify as interior space. This includes conditioned and underground parking garages.
- All fixtures must be hardwired.

### LED T8 LAMP – UL Type A

**Requirements:**

- New LED T8 Lamp must be 4-foot and replace an existing 4-foot linear fluorescent T8 lamp.
- The existing linear fluorescent lamps must be replaced and disposed of rather than refurbished and sold.
- LED lamp must be designated as UL Type A or UL Type A+B, but must be configured as UL Type A.
- The lamp must be listed under the Primary Use Category “Replacement Lamps (“plug and play”) (UL Type A)” or “Dual Mode Internal Driver (UL Type A and Type B)” on the current DesignLights Consortium (DLC) qualified product list.
  - DLC: <http://www.designlights.org/QPL>
- TLEDs must be on the current DLC qualified products list and have a listed efficacy on the DLC of 145 LPW or higher.
- The existing linear fluorescent ballast must be used and ballast compatibility must be checked.
- The ballast must be dimmable if existing system was dimmable.

- The LED T8 Lamp specification sheet must list all the compatible ballast model numbers to ensure proper operation of the measure. If the existing ballasts are not listed on the compatible ballast list, the following criteria must be met in order to qualify for a rebate:
  - TLED must be installed in a manner that is consistent with all requirements listed in the TLEDs specification sheet.
  - The ballasts that are not listed on compatible ballast list must be certified by independent test labs for compatibility and the certification must be submitted with the Installation Authorization.
  - If a lab certification is not available a letter from the manufacturer showing ballast compatibility must be submitted as a part of the application.
- Due to testing considerations, only a product that can operate off an electronic instant start ballast is eligible.
- 4-foot Parking Garage LED T8 Lamps must be installed in a structure that meets the following definition:
 

*Parking Garage Building is a building with floor areas used for parking vehicles and consists of at least a roof over the parking area. The building includes areas for vehicle maneuvering to reach designated parking spaces. If the roof of a parking structure is also used for parking, the section without an overhead roof is considered an outdoor parking lot instead of a parking garage.*
- New LED T8 Lamp must also meet the efficiency requirements as shown in the table below:

Performance Metric	SDG&E Program Requirement (no tolerance) <i>Values must be listed on DLC</i>
Luminaire Efficacy	$\geq 145$ LPW
CRI	$\geq 80$
CCT	2,200 K – 6,500 K
Power Factor	$\geq 0.9$
Total Harmonic Distortion	$\leq 20\%$
Lumen Maintenance	L70 $\geq 50,000$
Minimum Warranty	5 years

- Data that must be collected includes:
  - Customer/site information
  - Building and vintage type
  - Total number of fixtures on site
  - Proof that the existing linear fluorescent lamps are still operating as intended
  - Number of fixtures sampled (must sample at least 10% of the total number of fixtures on site)
  - Number of lamps per fixture
  - Number of ballasts per fixture
  - Ballast model number
  - Ballast manufacturer
  - Fluorescent lamp wattage
  - Disposal method of fluorescent tube
  - Replacement TLED information
  - Manufacturer cut sheet showing ballast compatibility
- Accelerated Replacement (AR) offerings must conform with CPUC Guidance on data collection for preponderance of evidence showing program influence and viability. Programs shall document if the existing equipment was replaced as a direct result of information, recommendations, and support provided by the program administrator (PA), and programs shall require the collection and submission of documentation to ensure proper conformance with eligibility and implementation requirements. POE requirements vary based upon project incentive amounts. The Customer Affidavit Statement must be completed by every customer, regardless of the incentive level.

**Restrictions:**

- De-lamping is not eligible.
- Re-ballast is not eligible.
- Replacement lamps designed to operate off existing magnetic ballasts or off other types of electronic ballasts do not qualify.

**LED T8 LAMP – UL Types B & C**

**Requirements:**

- New LED T8 Lamp must be 4-foot and replace an existing 4-foot linear fluorescent T8 lamp or fixtures with 2-lamp, 3-lamp, or 4-lamp fluorescent lamp and ballast systems.
- LED tube must be 4-foot and designated as UL Type B, UL Type A+B, or UL Type C. UL Type A+B (dual mode) lamps must be installed in a Type B configuration with the existing ballast removed.
- The lamp must be listed under the Primary Use Category “Internal Driver/Line Voltage (UL Type B) Lamps”, “Dual Mode Internal Driver (UL Type A and Type B)”, “2-Lamp External Driver (UL Type C) Lamps”, “3-Lamp External Driver (UL Type C) Lamps”, “4-Lamp External Driver (UL Type C) Lamps” on the current Design Lights Consortium qualified product list <http://www.designlights.org/QPL>.
- Must be on the current DLC qualified products list and have a listed efficacy on the DLC of 160 LPW or higher.
- LED tube must be compatible with the installed system lighting controls. For example, if the lighting system includes dimming controls, the new LED tube must be dimmable and compatible with the installed dimming system.
- New LED T8 Lamp must also meet the efficiency requirements as shown in the table below:

Performance Metric	SDG&E Program Requirement (no tolerance) <i>Values must be listed on DLC</i>
Luminaire Efficacy	≥ 160 LPW
CRI	≥ 80
CCT	2,200 K – 6,500 K
Power Factor	≥ 0.9
Total Harmonic Distortion	≤ 20%
Lumen Maintenance	L70 ≥ 50,000
Minimum Warranty	5 years

- Title 24 - Since UL Type B and Type C offerings involve removing and replacing both existing lamps and ballasts with unlike equipment, they are considered alterations. Based on factors such as the amount of luminaires retrofitted and size of building, these offerings qualify as either “One-for-One Alterations” (§141.0(b)2liii) or “Entire Luminaire Alterations” (§141.0(b)2li) and (§141.0(b)2lii). Depending on the type of alteration, the comparison of the new LED power to either existing power or to Title 24 lighting power density (LPD) triggers some Title 24 controls requirements, such as multi-level control (§130.1(b)) and automatic shutoff controls (§130.1(c)1-8). Regardless of which type of alteration is triggered, the alteration of the system “shall not prevent the operation of existing, unaltered controls, and shall not alter controls to remove functions specified in Section 130.1 (Mandatory Indoor Lighting Controls).” Thus, any existing lighting controls types must remain functional after installation.
  - Exemption from code:
    - §141.09(b)2I Retrofitting < 10% of luminaires in an enclosed space does not trigger code. However, verification of this exemption requires knowledge about the total number of luminaires in the space in question.
    - §141.09(b)2I Exemption 6. If the measure involves the retrofit of 50 or less luminaires per floor or tenant space, or in enclosed locations with only one luminaire then it does not trigger code.
- To ensure that code requirements for lighting power and controls are being met, the following data submission requirements must be met for all delivery types and measure application types.
  - Documentation demonstrating compliance with Title 24 requirements.
  - The customer must confirm that existing automated control functionality remains intact after installation.
- Documentation of EUL of equipment and confirmation that existing equipment has at least one year of RUL.
- Data that must be collected includes:
  - Customer/site information
  - Building and vintage type
  - Total number of fixtures on site
  - Number of fixtures sampled (must sample at least 10% of the fixtures present)
  - Number of lamps per fixture



- Fluorescent lamp wattage
- Disposal method of fluorescent tube
- Existing automated controls types in the spaces retrofitted
- Accelerated Replacement (AR) offerings must conform with CPUC Guidance on data collection for preponderance of evidence showing program influence and viability. Programs shall document if the existing equipment was replaced as a direct result of information, recommendations, and support provided by the program administrator (PA), and programs shall require the collection and submission of documentation to ensure proper conformance with eligibility and implementation requirements. POE requirements vary based upon project incentive amounts. The Customer Affidavit Statement must be completed by every customer, regardless of the incentive level.

**Restrictions:**

- De-lamping is not eligible.
- Existing lamps and ballasts must be fully demolished and properly disposed. "Abandon-in-place" demolition of existing ballasts is not eligible.



## INTERIOR LED HIGH BAY FIXTURE

### Requirements:

- New LED fixture must replace a lumen equivalent fixture of higher wattage.
- Only interior installations of LED fixtures or retrofit kits listed on the current DesignLights Consortium (DLC) qualified product list qualify.
  - DLC: <http://www.designlights.org/QPL>
- The LED fixture or retrofit kit must be listed on DLC under the General Application Category “High Bay” with the following Primary Use Designations:
  - High-Bay Aisle Luminaires
  - High-Bay Luminaires for Commercial and Industrial Buildings
  - Low-Bay Luminaires for Commercial and Industrial Buildings
  - Retrofit Kits for High-Bay Luminaires for Commercial and Industrial Buildings
  - Retrofit Kits for Low-Bay Luminaires for Commercial and Industrial Buildings
- Fixtures/retrofit kits must meet the minimum efficacy and lumen range for the appropriate product code. Data values for efficacy and lumen output must be listed on DLC. The product efficacy must meet or exceed the specified “measure case” efficacy based on the “rated” or “measured” efficacy in the DLC database. This requirement is to ensure the efficacy reported by the manufacturer has been confirmed by a third-party entity.
- Title 24 - Since this offering involves removing and replacing both existing lamps and ballasts with unlike equipment, they are considered alterations. Based on factors such as the amount of luminaires retrofitted and size of building, these offerings qualify as either “One-for-One Alterations” (§141.0(b)2liii) or “Entire Luminaire Alterations” (§141.0(b)2li) and (§141.0(b)2lii). Depending on the type of alteration, the comparison of the new LED power to either existing power or to Title 24 lighting power density (LPD) triggers some Title 24 controls requirements, such as multi-level control (§130.1(b)) and automatic shutoff controls (§130.1(c)1-8). Regardless of which type of alteration is triggered, the alteration of the system “shall not prevent the operation of existing, unaltered controls, and shall not alter controls to remove functions specified in Section 130.1 (Mandatory Indoor Lighting Controls).” Thus, any existing lighting controls types must remain functional after installation.
  - Exemption from code:
    - §141.09(b)2I Retrofitting < 10% of luminaires in an enclosed space does not trigger code. However, verification of this exemption requires knowledge about the total number of luminaires in the space in question.
    - §141.09(b)2I Exemption 6. If the measure involves the retrofit of 50 or less luminaires per floor or tenant space, or in enclosed locations with only one luminaire then it does not trigger code.
- Data that must be collected includes:
  - Customer/site information
  - Building and vintage type
  - Installed fixtures identification (make, model number, serial number, installed location) Number of lamps per fixture
  - Rated lumens of the installed luminaires
  - Rated efficacy (lumens/Watt) of the installed luminaires
  - Lighting power density calculations of the installed fixtures
  - Pre-existing luminaire type and wattage

### Restrictions:

- Fixtures listed under a Primary Use Category that begins with “specialty” are not eligible.
- Horticultural installations do not qualify.
- Exterior installations do not qualify.
- Screw-based lamps do not qualify.
- TLED tubes are not eligible

## FOOD SERVICE

### GENERAL REQUIREMENTS

- Customers must have a SDG&E non-residential small commercial electric account if applying for an electric measure, and a gas account if applying for a gas measure.
- All rebates apply toward the purchase of new or replacement energy-efficient equipment. Used or rebuilt equipment is not eligible.
- New equipment must replace existing equipment, unless otherwise noted in the product requirement section.
- All food service equipment must be listed on [energystar.gov](http://energystar.gov), to qualify unless otherwise noted in the product requirement section.
- Manufacturer's specification sheets must be provided.

### COMBINATION OVEN

**Requirements:**

- The combination oven must meet the requirements listed in the table below.

COMBINATION OVEN TYPE	STEAM MODE COOKING EFFICIENCY (%)	CONVECTION MODE COOKING EFFICIENCY (%)	STEAM MODE IDLE RATE <span style="border: 1px solid green; padding: 2px;">R149</span>	CONVECTION MODE IDLE RATE <span style="border: 1px solid green; padding: 2px;">R149</span>
Electric < 15 pan	≥ 50	≥ 70	≤ 5.0 kW	≤ 2.0 kW
Electric 15-28 pan	≥ 50	≥ 70	≤ 6.0 kW	≤ 2.5 kW
Electric > 28 pan	≥ 50	≥ 70	≤ 9.0 kW	≤ 4.0 kW
Gas < 15 pan	≥ 38	≥ 44	≤ 15,000 Btu/hr	≤ 8,000 Btu/hr
Gas 15-28 pan	≥ 38	≥ 44	≤ 18,000 Btu/hr	≤ 10,000 Btu/hr
Gas > 28 pan	≥ 38	≥ 44	≤ 28,000 Btu/hr	≤ 16,000 Btu/hr

- Data that must be collected includes:
  - Manufacturer and model number
  - Quantity of pans (hotel pan size) oven can accommodate
  - Customer/site information
  - Building and vintage type

### GRIDDLE

**Requirements:**

- The griddle manufacturer and model must be ENERGY STAR® qualified.
  - Energy Star: <http://www.energystar.gov/products>
- Data that must be collected includes:
  - Manufacturer and model number
  - Customer/site information
  - Building and vintage type

**Restrictions:**

- Double-sided griddles are not eligible.

### ICE MACHINE

**Requirements:**

- Program qualifying ice machines are defined by equipment type and daily ice harvest rate. The efficiency specifications must meet the requirements listed in the Measure Case Description for batch and continuous machines, per the ENERGY STAR V3.0 Program Requirements for Automatic Commercial Ice Makers.
  - Energy Star: <http://www.energystar.gov/products>
- The ice machine must meet the energy efficiency specifications listed the Measure Case Description section.
- Ice machine minimum daily ice harvest rate must be  $\geq 50$  lbs ice/day.
- The entire AHRI-tested ice making system must be purchased.
- Remote machines must be purchased with qualifying remote condenser or remote condenser/compressor unit.
- Only air-cooled machines – self-contained (SCU), icemaker heads (IMH), or remote condensing (RCU) – are eligible.
- Data that must be collected includes:
  - Manufacturer and model number
  - Customer/site information
  - Building and vintage type
- Program qualifying ice machines must meet the criteria listed in the table below.

EQUIPMENT TYPE	DAILY ICE HARVEST RATE (LBS ICE/DAY)
Ice Maker Head (IMH)	< 300
	300 - 799
	800 - 1,499
	$\geq 1,500$
Remote Condensing Unit (RCU)	< 988
	$\geq 988$
Self-Contained Unit (SCU)	< 110
	110 - 199
	$\geq 200$

**Restrictions:**

- Water-cooled ice machines do not qualify.

**STEAM COOKER**

**Requirements:**

- New commercial steam cookers must meet the ENERGY STAR Program Requirements for Commercial Steam Cookers, Version 1.2 or the specification in the Measure Case Description.
  - Energy Star: <http://www.energystar.gov/products>
- Program steam cookers must meet the criteria listed in the table below.

STEAMER TYPE	PAN CAPACITY	MINIMUM COOKING EFFICIENCY	IDLE ENERGY RATE
Electric	3-pan	50%	400 W
	4-pan	50%	530 W
	5-pan	50%	670 W
	6-pan and greater	50%	800 W
Gas	3-pan	38%	6,250 Btu/hr
	4-pan	38%	8,350 Btu/hr
	5-pan	38%	10,400 Btu/hr
	6-pan and greater	38%	12,500 Btu/hr

- Data that must be collected includes:
  - Manufacturer and model number
  - Number of Pans
  - Cooking Efficiency (%)
  - Idle Energy Rate (kW or Btu/hr)
  - Customer/site information
  - Building and vintage type

### **DEMAND VENTILATION CONTROL**

**Requirements:**

- The new commercial kitchen exhaust hood control system must be installed in an existing dedicated commercial kitchen exhaust hood and makeup air system.
- Installation must include temperature sensor(s) in the hood exhaust collar or within the hood, and/or an optic sensor on the end of the hood or within the hood that senses cooking conditions and allows the system to automatically vary the rate of exhaust and make-up (ventilation) air by adjusting unit fan speeds accordingly.
- The control system must be used in conjunction with a variable-speed drive (VSD) on the fan motor.
- Installations in a new exhaust hood must have a total kitchen hood airflow  $\leq 5,000$  cfm.
- If installed in an existing exhaust hood  $> 5,000$  cfm, the existing hood must have been installed before July 1, 2014 due to code requirements.
- The customer must provide verification of total exhaust cfm controlled by the new or existing kitchen hood to verify eligibility of the measure.
- Data that must be collected includes:
  - Manufacturer and model number
  - Customer/site information
  - Building and vintage type

### **HAND-WRAP MACHINE**

**Requirements:**

- New hand-wrap machine must be on-demand and replace a conventional or always-on hand-wrap machine.
- The measure must use either a mechanical or optical control system.
- Data that must be collected includes:
  - Manufacturer and model number
  - Rated capacity
  - Rated efficiency and unit
  - Customer/site information
  - Building and vintage type

### LOW-FLOW PRE-RINSE SPRAY VALVE

#### Requirements:

- Must be either:
  - A new commercial-grade PRSV with a maximum flow rate  $\leq 0.75$  gpm that replaces a PRSV with a maximum flow rate of 1.00 gpm for a spray force of  $< 5.0$  ozf. Must replace a PRSV with a maximum flow rate of 1.00 gpm.
  - A new commercial-grade PRSV with a maximum flow rate  $\leq 1.07$  gpm that replaces a PRSV with a maximum flow rate of 1.20 gpm for a spray force of  $> 5.0$  ozf and  $\leq 8.0$  ozf. Must replace a PRSV with a maximum flow rate of 1.20 gpm
- This measure is restricted to operations with natural gas water heaters only.
- This measure is governed by the Code of Federal Regulations (10 CFR 431.263). This measure is not covered by the California Building Energy Efficiency Standards (Title 24). The California Appliance Efficiency Regulations will align with the 2019 federal standards.
- Data that must be collected includes:
  - Manufacturer and model number
  - Flow rate
  - Water fuel type
  - Customer/site information
  - Building and vintage type

## REFRIGERATION

### GENERAL REQUIREMENTS

- Customers must have a SDG&E non-residential small commercial electric account if applying for an electric measure, and a non-residential gas account if applying for a gas measure.
- The California Energy Commission (CEC) and/or Gas Appliance Manufacturers Association (GAMA) equipment efficiency listed rating prevail over all submitted technical documentation, unless otherwise approved.
- All rebates apply toward the purchase of new or replacement energy-efficient equipment. Used or rebuilt equipment is not eligible.

### ULTRA-LOW TEMPERATURE FREEZER

#### Requirements:

- Ultra-Low Temperature (ULT) freezer must be upright and designed for a laboratory application within the following building types: Education (University), Health/Medical (Hospital), Manufacturing (Biotech or Pharmaceuticals).
- The ULT freezer must maintain a setpoint storage temperature between -70°C and -80°C (-94°F and -112°F).
- The ULT freezer must be listed on Energy Star® to qualify or have a maximum daily energy consumption (MDEC) at -75 °C (-103 °F) of 0.55 kWh/day/ft<sup>3</sup>.
  - Energy Star: <http://www.energystar.gov/products>
- Volume must be  $\geq 24 \text{ ft}^3 \leq 29 \text{ ft}^3$ .
- Data that must be collected includes:
  - Manufacturer and model number
  - Setpoint storage temperature
  - Volume
  - Customer/site information
  - Building and vintage type

### ANTI-SWEAT HEATER CONTROLS

#### Requirements:

- The anti-sweat heater (ASH) controls must be installed on reach-in low-temperature (freezer, case temperature below 32 °F) or medium-temperature (cooler, case temperature at or above 32 °F) display case that operates at full power, 100% of the time.
- To qualify, the display case must be equipped with humidity-sensing controls that reduce the amount of power supplied to the heaters as the store dew point (DP) temperature decreases.
- As the humidity falls below 55%, power reduction should decrease by at least 2% for every percentage drop.
- Equivalent technologies that can reduce or turn off ASHs based on the amount of condensation formed on the inner glass pane *may* also qualify.
- This measure is applicable for commercial, grocery, lodging (hotel), restaurant (fast-food), restaurant (sit-down), retail (multistory large), retail (single-story large), and retail (small) buildings, since the use of ASH controls is most common in these building types. Buildings with all HVAC system types are eligible.

#### Restrictions:

- Multiplex systems majorly upgraded or installed after July 1, 2014 do not qualify since the Title-24 code mandates floating controls.
- This measure cannot be used in conjunction with the new refrigeration display case with doors.
- This measure cannot be used in conjunction with the special doors with low/no anti-sweat heat on low-temperature display case.
- Data that must be collected includes:
  - Customer/site information
  - Building and vintage type



## FLOATING HEAD PRESSURE CONTROLS

### Requirements:

- Controls must be added to an existing air-cooled or evaporative-cooled multiplex refrigeration system that has a fixed Saturated Condensing Temperature (SCT) control.
- Controls must float head pressure down to a lower pressure when conditions permit (i.e., changes control from fixed set point to floating set point), reducing the SCT setpoint to a minimum of 70°F based on ambient conditions.
- The new SCT setpoint must follow the ambient temperature by controlling condenser fans with variable-speed drives or by staging condenser fans.
- For air-cooled systems, the SCT must be controlled to follow +12°F temperature difference or lower.
- For evaporative-cooled systems, the SCT must be controlled to follow a +17°F temperature difference or lower.
- If back-flood controls are present, the back-flood control setpoint must be 68°F or lower.
- Rebate is based on the design cooling load (tons), which accounts for connected display cases, walk-in coolers and freezers, and cooled storage and prep areas only.
- Data that must be collected includes:
  - Customer/site information
  - Building and vintage type
  - Vintage of the refrigeration multiplex site

### Restrictions:

- Projects that only reprogram a controller are not eligible.
- Any improvements that will increase system energy use.
- Buildings constructed after 2013 are not eligible.
- Sub-cooler loads and air conditioning loads are not eligible.
- Multiplex systems majorly upgraded or installed after July 1, 2014 do not qualify since the Title-24 code mandates floating controls.

### SUCTION PIPE INSULATION

**Requirements:**

- The eligible measure offerings for bare refrigeration line insulation are:
  - Insulation of bare suction lines for medium-temperature, walk-in coolers.
  - Insulation of bare suction lines for low-temperature, walk-in freezers.
- Insulation must be added to an existing refrigeration system with un-insulated suction refrigeration pipes that are no more than 1-5/8 inches in diameter.
- Bare suction pipes must be insulated with closed-cell nitrile rubber or equivalent with at least ¾-inch for medium-temperature and 1-inch for low-temperature systems.
- Insulation R-values must be greater than or equal to R-3.2 for medium-temperature cooler pipes.
- Insulation R-values must be greater than or equal to R-4.3 low-temperature freezer pipes.
- Data that must be collected includes:
  - Existing refrigeration system type (walk-in cooler or freezer)
  - Existing equipment manufacturer and model number
  - Existing equipment rated capacity (Btu/hr)
  - Existing equipment refrigerant type
  - Existing equipment compressor rated EER
  - Existing suction line length (in.)
  - Existing suction line diameter (in.)
  - Applied insulation type (closed-cell nitrile rubber or equivalent)
  - Insulation R-Value (Btu/hr/ft<sup>2</sup>-°F)
  - Customer/site information
  - Building and vintage type

### AUTO DOOR CLOSERS

**Requirements:**

- The automatic closer must be installed on a walk-in cooler or freezer that was manufactured before January 1, 2009.
- The automatic door closer must be installed on the main insulated opaque door(s) of an existing walk-in cooler or freezer.
- The automatic door closer must firmly close the door when it is within one inch of full closure.
- The automatic door closer must be installed on a walk-in cooler or a walk-in freezer door that was not previously equipped with one.
- Data that must be collected includes:
  - Manufacturer and model number
  - Existing equipment manufacturer and model number
  - Freezer or cooler vintage
  - Closer type (snub type latching closer, armature or swing arm closer, or other)
  - Customer/site information
  - Building and vintage type

## WATER HEATING

### GENERAL REQUIREMENTS

- Customers must have a SDG&E non-residential public sector gas account.
- All rebates apply toward the purchase of new, add-on, or replacement energy-efficient equipment. Used or rebuilt equipment is not eligible.
- The California Energy Commission (CEC) and/or Gas Appliance Manufacturers Association (GAMA) equipment efficiency listed rating prevail over all submitted technical documentation, unless otherwise approved.

### FAUCET AERATOR

#### Requirements:

- New faucet aerator must have a flow rate of 1.0 GPM or lower and be installed on an existing faucet that has a flow rate of 1.67 GPM or greater.
- Only facilities that utilize natural gas water heating equipment are eligible to receive a rebate.
- The faucet aerator can be installed in a public or private lavatory in a commercial building:
  - A private lavatory faucet is located in an individual dwelling unit such as a private office.
  - A public lavatory faucet is located in a bathroom shared by a communal area, such as a school or office building.
- Data that must be collected includes:
  - Manufacturer and model number
  - Flow rate (gpm)
  - Customer/site information
  - Building and vintage type

#### Restrictions:

- Faucets at health care facilities that are subject to the Office of Statewide Health Planning and Development (OSHPD) code and regulation (e.g. hospitals, clinics, skilled nursing facilities) do not qualify. The use of aerators is banned in the health care industry due to aerator flow control methods and components. Non-aerating laminar flow restrictors (LFRs) must be installed on faucets in these facilities.
- Newly constructed buildings, additions to existing buildings, and alterations to existing buildings are excluded.

### LOW-FLOW SHOWERHEAD

#### Requirements:

- New low-flow showerhead must have a flow rate of 1.8 GPM or lower and replace an existing showerhead with a flow rate of 2.5 GPM or greater.
- Only facilities that utilize natural gas water heating equipment are eligible to receive a rebate.
- The installed low-flow showerhead shall meet the requirements of test procedure ANSI/ASME A112.18.12000, Section 5.5
- Make and model number must be included with a copy of the invoice.
- Data that must be collected includes:
  - Manufacturer and model number
  - Flow rate (gpm)
  - Customer/site information
  - Building and vintage type

### SHOWERHEAD FLOW CONTROL VALVE

**Requirements:**

- New flow control valve must be installed on an existing showerhead with a flow rate of 2.5 GPM or greater, reducing the flow rate to 1.5 GPM or lower.
- Only facilities that utilize natural gas water heating equipment are eligible to receive a rebate.
- This measure is applicable for Hotel, Motel, and Education facilities of new and existing vintages.
- Accelerated Replacement (AR) offerings must conform with CPUC Guidance on data collection for preponderance of evidence showing program influence and viability. Programs shall document if the existing equipment was replaced as a direct result of information, recommendations, and support provided by the program administrator (PA), and programs shall require the collection and submission of documentation to ensure proper conformance with eligibility and implementation requirements. POE requirements vary based upon project incentive amounts. The Customer Affidavit Statement must be completed by every customer, regardless of the incentive level.
- Data that must be collected includes:
  - Manufacturer and model number (new and pre-existing)
  - Performance flow rate measurements (new and existing)
  - Photograph of pre-existing equipment in place and operating
  - Customer/site information
  - Building and vintage type

### FAUCET FLOW CONTROL VALVE

**Requirements:**

- New faucet aerator must have a flow rate of 1.0 GPM or lower and be installed on an existing faucet that has a flow rate of 1.67 GPM or greater.
- Only facilities that utilize natural gas water heating equipment are eligible to receive a rebate.
- The faucet aerator can be installed in a public or private lavatory in a commercial building:
  - A private lavatory faucet is located in an individual dwelling unit such as a private office.
  - A public lavatory faucet is located in a bathroom shared by a communal area, such as a school or office building.
- Data that must be collected includes:
  - Manufacturer and model number
  - Flow rate (gpm)
  - Customer/site information
  - Building and vintage type

**Restrictions:**

- Faucets at health care facilities that are subject to the Office of Statewide Health Planning and Development (OSHPD) code and regulation (e.g. hospitals, clinics, skilled nursing facilities) do not qualify. The use of aerators is banned in the health care industry due to aerator flow control methods and components. Non-aerating laminar flow restrictors (LFRs) must be installed on faucets in these facilities.
- Newly constructed buildings, additions to existing buildings, and alterations to existing buildings are excluded.

## LAMINAR FLOW RESTRICTOR

### Requirements:

- The device must be installed only in health care facilities that are subject to the Office of Statewide Health Planning and Development (OSHPD) code and regulation/inspection requirements that utilize natural gas-powered water-heating equipment.
- The laminar flow restrictor must be installed on an existing faucet without a flow restriction device.
- The new device must meet OSHPD code and regulation.
- The laminar flow restrictor must be labeled as “Vandal Proof” or must not be removable without a proprietary tool, except for dialysis and scrub sink locations.
- Data that must be collected includes:
  - Manufacturer and model number
  - Flow rate (gpm)
  - Customer/site information
  - Building and vintage type

### Eligible Building Types

These facilities include (but are not limited to):

- Hospitals (large regional or local)
- Emergency rooms
- In-patient and outpatient facilities and medical office buildings connected to or No Copay standing from main hospitals
- Doctor offices (e.g. general practitioners, pediatricians, optometrists, chiropractors, etc.)
- Clinics and nursing homes

### Restrictions:

- New construction health care facilities do not qualify.

## PIPE FITTING INSULATION

### **Requirements:**

- A minimum of one inch of pipe insulation must be added to an existing bare commercial or industrial steel or copper pipe or pipe fitting (elbows, tees, valves, unions, flanges, reducers, bushings, couplings, etc.).
- The pipe must have a minimum diameter of ½-inch and transfer hot water, low-pressure steam, or medium-pressure steam directly from gas-fired equipment, and the fluid type must be indicated. If the fluid is steam, the pressure of the steam must also be indicated.
- Acceptable types of insulation for hot water pipes include elastomeric foam rubber, polyethylene foam, UV-resistant polyethylene foam, and rigid polyurethane foam.
- Acceptable types of insulation for steam pipes include silicone foam rubber, melamine foam, rigid urethane-based foam, cellular glass, rigid fiberglass, and rigid mineral wool.
- The manufacturer's specification sheet must be submitted.
- The length of insulation to be installed with each pipe size must be indicated.
- Data that must be collected includes:
  - Manufacturer and model number
  - Insulation material type
  - Insulation material k-value rating
  - Insulation thickness
  - Fluid temperature (hot water, <15 psi steam, >15 psi steam)
  - Pipe diameter (inches)
  - Evidence of prior tank insulation (or any insulation fragments)
  - Location where burns can be sustained (Yes/No)
  - Customer/site information
  - Building and vintage type

### **Restrictions:**

- Insulation required by California Building Energy Efficiency Standards (Title 24) or employee safety laws (Occupational Safety and Health Administration, OSHA) does not qualify.
- Replacement of damaged (existing) insulation does not qualify.

## HOT WATER TANK INSULATION

### Requirements:

- 1-inch or 2-inch fiberglass or foam insulation must be installed on an existing, bare liquid solution storage or transfer tank.
- The tank must be coupled to gas-fired commercial, industrial, or agriculture equipment that transfers heat to the contained liquid or solution.
- Data that must be collected includes:
  - Manufacturer and model number
  - Insulation material type
  - Insulation material k-value rating
  - Insulation thickness
  - Process temperature (temperature inside the tank)
  - Evidence of prior tank insulation (or any insulation fragments)
  - Location where burns can be sustained (Yes/No)
  - Customer/site information
  - Building and vintage type

### Restrictions:

- The following conditions and applications are not eligible:
  - Tanks with pre-existing insulation.
  - Replacement of old or damaged insulation.
  - Tanks insulated to prevent burns.
  - Insulation for exposed hot-water tanks within seven feet of the floor that are not otherwise guarded in such manner as to prevent contact.
- The California Occupational Safety and Health Standards Board, Section 3308 requires employers to insulate or guard hot pipes and hot surfaces of 140 °F or higher that are located within seven feet of the floor or within 15 inches from stairways, ramps, or fixed ladders - R903. Any tank requiring insulation per these standards is not eligible.
- The 2016 version of the California Building Energy Efficiency Standards (Title 24), Section 110.3 establishes requirements for tank insulation in the design and installation of space-conditioning and service water heating systems and equipment - R684 (Section 123). Any tank requiring insulation per these standards does not qualify for a rebate.

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