

## Affordable Multifamily (AMF) Program

# List of Pre-Qualified Energy Saving Measures (ESMs)

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### **Be sure to confirm your fuel source eligibility**

**All customers who receive service from at least one Investor-Owned Utility are eligible for financing under the Program. However, some measures are gas or electric fuel source specific. Customers who receive electric service from a MUNI (e.g. LADWP or SMUD) may install electric measures, but they will be considered Non-ESMs for the purpose of calculating the credit enhancement. Up to \$1 million of financing per project, is eligible to receive a credit enhancement. Up to 30% of that credit enhanced amount may include Non-ESMs**



### List of pre-qualified ESMs for the Affordable Multifamily Financing Program

Measure Name   Requirements	Fuel source & self-install eligibility (E = Electric / G = Gas)			Measure ID
	E	G	SI	
<b>Agriculture Measures</b>				
Automatic Pump Shut-off Sensor	X			AG-APMS
Heat Recovery	X	X		AG-HREC
High Efficiency Booster or Well Pump	X			AG-BWLP
High Efficiency Irrigation Pump	X			AG-IPMP
High Efficiency Ventilation Fan	X			AG-HEVF
Irrigation Pump Performance Testing and Optimization	X			AG-IPMT
Plate Cooler	X			AG-PLTC
Sprinkler-to-Drip Irrigation	X			AG-DIRR
VFD on Booster or Well Pump Motor	X			AG-VFDW
VFD on Pump or Fan Motor	X			AG-VFDM
<b>Appliance Measures</b>				
Air Cleaner/Purifier   Energy Star	X		YES	AP-ACLN
Residential In-Unit Clothes Dryer (Electric)   Energy Star	X		YES	AP-DRYE
Residential In-Unit Clothes Dryer (Gas)   Energy Star		X		AP-DRYG
Residential In-Unit Clothes Washer (Electric Hot Water)   Energy Star	X		YES	AP-WSHE
Residential In-Unit Clothes Washer (Gas Hot Water)   Energy Star		X	YES	AP-WSHG
Residential In-Unit Dishwasher (Electric Hot Water)   Energy Star	X		YES	AP-DSHE
Residential In-Unit Dishwasher (Gas Hot Water)   Energy Star		X	YES	AP-DSHG
Residential In-Unit Freezer   Energy Star	X		YES	AP-FREZ
Residential In-Unit Refrigerator   Energy Star	X		YES	AP-FRIG
<b>Building Envelope Measures</b>				
Air Sealing	X	X		BE-AIRS
Attic Insulation	X	X		BE-INSA
Cool Roof   Must be certified by Cool Roof Rating Council (CRRC)	X			BE-ROOF
Floor Insulation	X	X		BE-INSF
Heat Reflective Coating   Product must have solar reflectance $\geq 0.5$ as tested to ASTM C1549-16	X			BE-RADC
Radiant Barrier	X			BE-RADB
Wall Insulation	X	X		BE-INSW
Window Film	X	X	YES	BE-WFLM
Windows	X	X		BE-WIND



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<b>Data Center Measures</b>				
Airflow Management Device	X			DC-AIRM
Aisle Containment	X			DC-AISC
Aisle Layout Optimization   Separate hot and cold aisles	X			DC-AISO
Efficient Network Equipment   Energy Star	X		YES	DC-ENET
Efficient Server   Energy Star	X		YES	DC-ESER
Efficient UPS   Energy Star	X		YES	DC-EUPS
Server Consolidation	X			DC-SERC
Server Virtualization	X			DC-SERV
<b>Demand Response Measures</b>				
Automated Demand Response Equipment	X	X		DR-ADRE
Mechanical Energy Storage (MES) System   Must be used for the purpose of permanent load shifting (PLS)	X			DR-MESS
Thermal Energy Storage (TES) System   Must be used for the purpose of permanent load shifting (PLS)	X			DR-TESS
<b>Food Service Measures</b>				
Commercial Cooking Equipment   Energy Star griddles, ovens, steam cookers, or fryers	X	X		FS-COOK
Commercial Dishwashing Equipment   Energy Star	X	X		FS-DISH
Hot Holding Cabinet   Energy Star	X		YES	FS-HHCA
Low Flow Pre-Rinse Spray Valve	X	X	YES	FS-SPRA
On-demand Hand Wrap Machine	X		YES	FS-WRAP
Ventilation Hood Control	X	X		FS-HOOD
<b>HVAC Measures</b>				
Air Filter Sensor or Automatic Filter Replacement	X			HV-AFSE
Air-Side or Water-Side Economizer	X			HV-ECON
Air-Source or Ground-Source Heat Pump	X	X		HV-HPMP
Automatic Temperature Setpoint Control	X			HV-ATSC
Chilled Water Outdoor Temperature Reset	X			HV-CWOR
Chiller Optimization Control	X			HV-CHOP
Chiller Upgrade, Retrofit, or Replacement	X			HV-CHIL
Cold Water Booster Pump   Variable speed pump with ECM motor	X			HV-CWBP
Compressor or Condenser	X			HV-COMP



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<b>HVAC Measures (cont.)</b>				
Condensate Recovery		X		HV-CONR
Cooling Tower Upgrade, Retrofit, or Replacement	X			HV-TOWR
Demand Controlled Ventilation	X	X		HV-DCVT
Dual Enthalpy Control	X			HV-ENTH
Duct Insulation	X	X		HV-DUCI
Duct Sealing (Existing)	X	X		HV-DUCX
Duct Sealing (New)	X	X		HV-DUCR
Evaporative Cooling	X			HV-EVAP
Fan or Motor Control	X			HV-CTRL
Furnace - Commercial		X		HV-FURC
Furnace - Residential In-Unit   Energy Star		X		HV-FURR
Furnace Fan Brushless DC Motor   Brushless Permanent Magnet (BPM) or Electronically Commutated Motors (ECM) motors	X			HV-FECM
Gas Hydronic Boiler - Commercial		X		HV-BOIC
Gas Boiler - Residential In-Unit		X		HV-BOIR
Gas Steam Boiler - Commercial		X		HV-STEA
Heat Recovery	X	X		HV-HTRE
Heat/Energy Recovery Ventilator	X	X		HV-HERV
High Performance Circulator Pump   Variable speed pump with ECM motor	X			HV-HPCP
Hotel Guest Room Occupancy Temperature Control	X	X		HV-HOTO
HVAC Tune-up and Optimization	X	X		HV-TUNE
Infrared Heater	X	X		HV-INFH
Notched or Synchronous Drive Belt	X		<b>YES</b>	HV-SYNC
Outside Air Reduction	X	X		HV-OAIR
Packaged Terminal Air Conditioner (PTAC)	X			HV-PTAC
Pipe Insulation	X	X		HV-PIPE
Residential In-Unit Wall Furnace (Fan-type)		X		HV-FANT
Residential In-Unit Wall Furnace (Gravity)		X		HV-GRAV
Rooftop Unit Control   Must include VFD control of RTU supply fan speed	X	X		HV-RTUC
Rooftop Units or Packaged HVAC System	X	X		HV-RTUP
Smart Thermostat   Programmable and communicating thermostat	X	X	<b>YES</b>	HV-SMRT
Split/Mini Split Air Conditioning Unit - Commercial	X			HV-MINC
Split/Mini Split Air Conditioning Unit - Residential In-Unit   18 SEER or above	X			HV-MINR



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<b>HVAC Measures (cont.)</b>				
Static Pressure Reset	X	X		HV-STPR
Steam Trap Audit/Replacement		X		HV-TRAP
Variable Air Volume	X	X		HV-VAVO
Ventilation Fan   Energy Star	X			HV-VFEN
VFD on Compressor Motor	X			HV-VFDC
VFD on Pump or Fan Motor	X			HV-VFDM
<b>Industrial Measures</b>				
Air Receiver Tanks for Load/No Load Compressor	X			IN-TANK
All-Electric Injection Molding Machine	X			IN-INJE
Compressed Air Cycling, Desiccant, or Heat Pump Dryer	X			IN-ADRY
Compressed Air Leak Audit and Repair	X			IN-LEAK
Compressed Air No-Loss Drain	X			IN-DRAI
Compressed Air Pressure Reduction	X			IN-PRES
Energy Recovery Pressure Reducing Valve	X			IN-EPRV
Exhaust Hood Control	X	X		IN-HOOD
High Performance Circulator Pump   Variable speed pump with ECM motor	X			IN-HPCP
Notched or Synchronous Drive Belt	X		YES	IN-SYNC
Premium Efficiency Motor   Exceed EISA 2007	X			IN-PEMO
Process Heat Recovery	X	X		IN-HEAT
Process Pump	X			IN-PUMP
SCADA System	X	X		IN-SCAD
VFD on Compressor Motor	X			IN-VFDC
VFD on Process Pump or Fan Motor	X			IN-VFDM
<b>Lighting Measures</b>				
Controls: Indoor Daylight Sensor	X			LI-DAYL
Controls: Indoor Networked Lighting System   DLC qualified Networked Lighting Control	X			LI-NLCI
Controls: Indoor Vacancy Sensor	X			LI-VACI
Controls: Integrated Networked Lighting System   DLC qualified Networked Lighting Control with Luminaire Level Lighting Control (LLLC)	X			LI-INLC
Controls: Integrated Vacancy and Daylight Sensor   Sensors are integral to the light fixture	X			LI-ILCD
Controls: Integrated Vacancy Sensor   Sensors are integral to the light fixture	X			LI-ILCV



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<b>Lighting Measures (cont.)</b>				
Controls: Outdoor Networked Lighting System   DLC qualified Networked Lighting Control	X			LI-NLCO
Controls: Outdoor Occupancy Sensor	X			LI-OCCO
LED Accent/Track Light Fixture   Energy Star	X			LI-TRAC
LED Case Light Fixture   DLC qualified display case, horizontal refrigerated case, or vertical refrigerated case	X			LI-CASE
LED Ceiling Mount or Pendant Fixture   Energy Star	X			LI-CEIL
LED Decorative Lamp   Energy Star	X		YES	LI-DECL
LED Directional Lamp   Energy Star	X		YES	LI-DIRL
LED Downlight Fixture   Energy Star hard-wired recessed, surface, or pendant mount	X			LI-DWNF
LED Downlight Screw-base Retrofit Kit   Energy Star recessed or surface mount; screw base retrofit	X		YES	LI-DWNR
LED Four-Pin Replacement Lamp   DLC qualified vertical or horizontal lamps; UL type A	X		YES	LI-FPIN
LED General Service Lamp   Energy Star	X		YES	LI-GENL
LED High/Low-Bay Fixture or Retrofit Kit   DLC qualified high-bay, low-bay, or high-bay aisle	X			LI-HIGH
LED Horticultural Light Fixture   DLC qualified horticultural light fixture	X			LI-HORT
LED Interior Directional Fixture   DLC qualified wall wash or track	X			LI-DIRF
LED Linear Ambient Fixture or Retrofit Kit   DLC qualified direct or indirect linear	X			LI-LINA
LED Linear Replacement Lamp (TLED) - Type A   DLC qualified T8 or T5 linear replacement lamps (all dimensions); UL type A	X		YES	LI-TLED
LED Linear Replacement Lamp (TLED) - Type B and C   DLC qualified T8 or T5 linear replacement lamps (all dimensions); UL types B or C	X			LI-TLDB
LED Mogul Screw Base Replacement Lamp - Indoor   DLC qualified high- or low-bay; UL types B or C	X			LI-MOGI
LED Mogul Screw Base Replacement Lamp - Outdoor   DLC qualified UL types B or C	X			LI-MOGO
LED Outdoor Area Light Fixture or Retrofit Kit   DLC qualified pole/arm-mounted area, decorative, wall-mounted, bollards, parking garage, canopy, flood, spot, stairwell	X			LI-OUTA
LED Residential-style Outdoor Wall, Porch, Post, or Security Light Fixture   Energy Star	X			LI-OUTW
LED Street Light Fixture or Retrofit Kit   DLC qualified pole/arm-mounted roadway	X			LI-OUTS
LED Troffer Fixture or Retrofit Kit   DLC qualified 2x2, 1x4, or 2x4	X			LI-TROF
LED Under-Cabinet or Cove Fixture   Energy Star	X			LI-UCAB



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<b>Other Measures</b>				
Building Management System (BMS)	X	X		OT-BMSY
Energy Audit	X	X		OT-EAUD
Energy Management System (EMS)	X	X		OT-EMSY
Energy Measurement, Metering or Monitoring Equipment   Must be installed with at least one other non-lighting Energy Savings Measure on this list	X	X		OT-METR
Generator Circulating Block Heater	X			OT-GCIR
High Efficiency Distribution Transformer	X			OT-TRAN
Plug Load Control	X		YES	OT-PLUG
<b>Pool Product Measures</b>				
Gas Pool Water Heater   Energy Star		X		PP-GAHT
Heat Pump Pool Water Heater   Energy Star	X			PP-HPWH
Pool Cover (Electric Heater)	X		YES	PP-COVE
Pool Cover (Gas Heater)		X	YES	PP-COVG
Pool Pump Motor   Energy Star	X			PP-CMTR
VFD on Pool Pump Motor	X			PP-VFDM
<b>Refrigeration Measures</b>				
Add Doors to Open Case	X		YES	RF-DOOR
Add Insulation to Refrigerant Lines or Storage Tanks	X			RF-INSU
Air Curtain	X			RF-ACUR
Anti-Condensation Door/Frame Heater Control	X			RF-DHCN
Auto-Close Doors for Walk-in Cooler or Freezer	X			RF-ACDR
Commercial Ice Machine   Energy Star	X		YES	RF-ICEM
Commercial Refrigerator or Freezer   Energy Star	X		YES	RF-REFC
Compressor Unit	X			RF-COMP
Condensing Unit	X			RF-COND
Evaporator Defrost Control for Freezer	X			RF-DEFC
Evaporator Fan Brushless DC Motor   Brushless Permanent Magnet (BPM) or Electronically Commutated Motors (ECM) motors	X			RF-EECM
Evaporator Fan Motor Control	X			RF-EFMC



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<b>Refrigeration Measures (cont.)</b>				
Floating Head Pressure Control	X			RF-FHPC
Low Charge Ammonia	X			RF-AMON
Low Energy Anti-Condensation Door	X			RF-LEDO
Phase Change Material for Refrigerated or Freezer Storage	X		YES	RF-PCMS
Rapid Close Doors for Refrigerated Warehouse	X			RF-RCDO
Reach-in Refrigerator or Freezer   Energy Star	X		YES	RF-REAC
Refrigerated Case Door Strip	X		YES	RF-STRP
Refrigerated Case Night Cover	X		YES	RF-COVR
Variable Refrigerant Flow	X			RF-VRFL
Vending Machines   Energy Star	X		YES	RF-VEND
VFD on Refrigeration Pump or Fan Motor	X			RF-VFDM
<b>Water Heating Measures</b>				
Central Gas Domestic Water Heater or Boiler		X		WH-CDWH
Faucet Aerator (Electric Hot Water)	X		YES	WH-FAUE
Faucet Aerator (Gas Hot Water)		X	YES	WH-FAUG
Faucet Laminar Flow Restrictor (Electric Hot Water)	X		YES	WH-LAME
Faucet Laminar Flow Restrictor (Gas Hot Water)		X	YES	WH-LAMG
Heat Pump Water Heater   Energy Star	X			WH-HP55
Ozone Laundry System (Electric Hot Water)	X			WH-OZOE
Ozone Laundry System (Gas Hot Water)		X		WH-OZOG
Shower Head - Low Flow (Electric Hot Water)	X		YES	WH-SHWE
Shower Head - Low Flow (Gas Hot Water)		X	YES	WH-SHWG
Shower Thermostatic Valve (Electric Hot Water)	X			WH-VALE
Shower Thermostatic Valve (Gas Hot Water)		X		WH-VALG
Tank Insulation (Electric Hot Water)	X		YES	WH-TINE
Tank Insulation (Gas Hot Water)		X	YES	WH-TING
Tank Water Heater (Gas)   Energy Star		X		WH-WHEG
Tankless Water Heater (Electric)	X			WH-ETNK
Tankless Water Heater (Gas)   Energy Star		X		WH-GTNK