

## DRAFT MEASURE LIST FOR CONSIDERATION BY NEW ORLEANS STAKEHOLDERS

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This document contains a draft proposed measure list that Optimal Energy will use for its 2018 study of electric energy efficiency potential for New Orleans. The measures are split into four categories – Residential Efficiency, Commercial Efficiency, Demand Response, and Rate Structures. Measures that may be thought as emerging technology are highlighted in maroon, though we do not use a strict definition for the term.

### Residential Efficiency Measures

Measure Name	End Use	Retrofit	ROB	NC
LED Screw-in General Service Lamp	Indoor Lighting	x	x	x
LED Specialty Bulb	Indoor Lighting	x	x	x
LED ENERGY STAR Fixture	Indoor Lighting	x	x	x
LED Nightlight	Indoor Lighting	x	x	x
LED Direct Install	Indoor Lighting	x	x	x
Occupancy Sensors and Dimming Controls	Indoor Lighting	x		x
Daylighting Control	Indoor Lighting	x		x
Networked/ Connected - Indoor LED Lamp/Luminaires	Indoor Lighting	x	x	x
Exterior SSL 450 to 1600 lumens	Outdoor Lighting	x	x	x
Exterior SSL >1600 lumens	Outdoor Lighting	x	x	x
Exterior Motion Sensor	Outdoor Lighting	x		x
Central Air Conditioner	HVAC	x	x	x
Central Heat Pump	HVAC	x	x	x
Central AC Quality Install Additional Savings	HVAC	x	x	x
Central Heat Pump Quality Install Additional Savings	HVAC	x	x	x
Central AC Tuneup	HVAC	x		
Central HP Tuneup	HVAC	x		
Energy Star Room AC	HVAC	x	x	x
ECM Blower Motors	HVAC		x	x
ECM Circulators	HVAC	x		
Ground Source Heat Pumps	HVAC	x	x	x
Mini Split Ductless Systems A/C only and Heat Pump	HVAC		x	x
Duct Sealing	HVAC	x		
ENERGY STAR Bathroom Ventilation Fan	HVAC		x	x
Smart Thermostat	HVAC	x		x
Learning Thermostat	HVAC	x	x	x
Residential Energy Management System	HVAC	x		x

Measure Name	End Use	Retrofit	ROB	NC
Heat Pump Water Heater	DHW		x	x
Faucet Aerator	DHW	x	x	x
Low Flow Showerhead	DHW	x	x	x
Pipe Insulation	DHW	x		x
Tank Wrap	DHW	x		x
Drainpipe Heat Exchanger with Electric Water Heater	DHW	x		x
Electric Water Heater Setback	DHW	x		
Thermostatic Restriction Valve with Electric Water Heater	DHW	x		x
Pool Cover	DHW	x		
Pool Heater	DHW	x	x	x
ENERGY STAR Single Family Clothes Washer	Appliance	x	x	x
ENERGY STAR Multi Family Clothes Washer	Appliance	x	x	x
ENERGY STAR Single Family Dryer	Appliance	x	x	x
ENERGY STAR Multi Family Dryer	Appliance	x	x	x
ENERGY STAR Dehumidifier	Appliance	x	x	x
ENERGY STAR Dishwashers	Appliance	x	x	x
ENERGY STAR Refrigerators and Freezers	Appliance		x	x
Secondary Refrigerator/Freezer Removal	Appliance	x		
ENERGY STAR Air Purifier	Appliance		x	x
Variable Speed Pool Pump	Misc/Plug Load	x	x	x
Advanced Tier 2 Power Strips	Misc/Plug Load	x		x
ENERGY STAR Computer	Misc/Plug Load		x	
ENERGY STAR Set Top Box	Misc/Plug Load		x	
New Windows	Envelope	x	x	x
Insulation and Air Sealing	Envelope	x		x
Behavioral	Whole Home	x		
Energy Efficient New Home - Single Family	Whole Home			x
Energy Efficient New Home - Multi Family	Whole Home			x
ENERGY STAR Manufactured Home	Whole Home			x
Net Zero Energy Home	Whole Home			x
Window attachments	Envelope	x		x
Sump pumps	Misc/Plug Load	x	x	

## Commercial Efficiency Measures

Measure Name	End Use	Retrofit	ROB	NC
LED Screw-in General Service Lighting	Indoor Lighting	x	x	
LED Screw-in Decorative and Directional Lighting	Indoor Lighting	x	x	
LED Linear Lighting	Indoor Lighting	x	x	
LED High/Low Bay	Indoor Lighting	x	x	
LED Downlighting	Indoor Lighting	x	x	
LED Recessed Fixture	Indoor Lighting	x	x	
LED Track Lighting	Indoor Lighting	x	x	
LED Task Lighting	Indoor Lighting	x	x	
LED Refrigeration Case Lighting	Indoor Lighting	x		x
LED Exit Sign	Indoor Lighting	x		
Advanced Lighting Design	Indoor Lighting			x
Occupancy Sensors	Indoor Lighting	x		x
Daylight Harvesting	Indoor Lighting	x		x
Advanced daylighting controls	Indoor Lighting	x	x	x
Bi-Level Lighting	Indoor Lighting	x	x	x
Networked/Connected LEDs	Indoor Lighting	x		x
LED Signage Lighting	Outdoor Lighting	x	x	x
LED Exterior Lighting - Roadways/Parking Lots	Outdoor Lighting	x	x	x
LED Exterior Lighting - Other	Outdoor Lighting	x	x	x
Outdoor Lighting Controls	Outdoor Lighting	x		x
Improved Exterior Lighting Design	Outdoor Lighting			x
Daylight Dimming Control	Outdoor Lighting	x		x
High Efficiency AC	HVAC	x	x	x
High Efficiency HP	HVAC	x	x	x
Ground Source Heat Pumps	HVAC	x	x	x
ENERGY STAR Room AC	HVAC	x	x	x
Ductless Mini and VRF Heat Pumps	HVAC	x	x	x
High Efficiency Chillers	HVAC	x	x	x
High Efficiency Chillers vs. DX systems	HVAC	x		x
Optimized Unitary AC Distribution/Control System	HVAC	x		x
Optimized Chiller Distribution/Control System	HVAC	x		x
Dual Enthalpy Economizer Control (DEEC)	HVAC	x	x	x
Demand Controlled Ventilation	HVAC	x		x
AC Tune-Up	HVAC	x		
HP Tune-Up	HVAC	x		
Chiller Tune-Up	HVAC	x		

Measure Name	End Use	Retrofit	ROB	NC
Duct Sealing/Insulation	HVAC	x		x
VFDs for HVAC System	HVAC	x		x
ECM Blower Motors	HVAC	x		
ECM Circulators	HVAC	x		
High Volume Low Speed Fans	HVAC	x	x	x
Smart Thermostats	HVAC	x		x
Economizer for Unitary Equipment	HVAC	x		x
Parking Garage Exhaust Fan CO Control and Heating	HVAC	x		x
VAV Distribution System from CV	HVAC	x		
Faucet Aerator (1.5 gpm) with Electric Water Heater	DHW	x	x	x
Heat Pump Water Heater	DHW	x	x	x
Pre-Rinse Sprayers (1.6 gpm) with Electric Water Heater	DHW	x	x	x
Tankless Water Heater	DHW	x	x	x
Beverage Machine and Controls	Plug Load/Misc	x	x	x
Vending Machine and Controls	Plug Load/Misc	x	x	x
ENERGY STAR Refrigerator/Freezer (Residential Size)	Plug Load/Misc	x	x	x
Commercial Clothes Washer	Plug Load/Misc	x	x	x
Commercial Clothes Dryer	Plug Load/Misc	x	x	x
Ozone Laundry System	Plug Load/Misc	x		x
HE Plug Loads - Office	Plug Load/Misc		x	x
Office Equipment Control	Plug Load/Misc	x		x
HE Plug Loads - Hotel	Plug Load/Misc		x	x
HE Refrigeration - Reach-in	Refrigeration		x	x
HE Refrigeration - Walk-in	Refrigeration		x	x
Refrigeration System Tune-up	Refrigeration	x		
HE Refrigeration Retrofit	Refrigeration	x		
Strip Curtains	Refrigeration	x		x
Cooler Night Cover	Refrigeration	x		x
Freezer and Cooler Door Gasket	Refrigeration	x		
Commercial Kitchen HE Retrofit	Commercial Kitchen	x		
Commercial Kitchen HE New Construction	Commercial Kitchen			x
Window Film	Envelope	x		x
Windows	Envelope	x	x	x
Insulation and Air Sealing	Envelope	x		
Cool Roof	Envelope	x		x
Compressed Air Receiver	Compressed Air		x	x
Compressed Air Leak Detection	Compressed Air	x		
Cycling Air Dryers	Compressed Air	x	x	x

Measure Name	End Use	Retrofit	ROB	NC
Engineered Nozzles	Compressed Air	x	x	
Low Pressure Drop Filters	Compressed Air		x	x
No Loss Drains	Compressed Air	x		
Variable Speed Drive Air Compressor	Compressed Air	x	x	x
Data Center Cooling Design	Data Center	x	x	x
Data Center IT Equipment	Data Center	x		
Data Center UPS/Power Delivery Improvement	Data Center	x	x	x
Industrial Process Improvements	Industrial	x	x	x
Integrated Design for New Construction	Whole Building			x
Retrocommissioning/Calibrate Sensors	Whole Building	x		
BEMS System (incl. setback, optimal start, eliminate simultaneous heating/cooling)	Whole Building	x		x
Control System for Hospitality	Whole Building	x		x
Conservation Voltage Reduction (CVR)	Whole Building	x		
Elevator motor retrofit	Misc	x	x	
Strategic energy management	Whole Building	x		x
Clean Heat Exchanger (i.e., Coil) Surfaces	HVAC	x		
Advanced Rooftop Unit Controls	HVAC	x	x	x
Operate Cooling Tower Fans in Parallel (Not Series)	HVAC	x		x
Replace Pneumatic Controls with DDC	HVAC	x	x	x
High Performance Fume Exhaust Hoods	HVAC	x	x	x
Balance Chilled Water/Air Distribution Systems	HVAC	x		x
Air Seal Penthouse Mechanical/Elevator Rooms (Reduce Stack Effect)	Envelope	x		x
Window Attachments	Envelope	x		x

## Demand Response Measures

Measure Name	Sector
Bring your own thermostat program	Res
Rate strategies	Both
Networked Learning thermostats for SME	C&I
Grid Responsive Commercial BEMS	C&I
AMI enabled HVAC & water heater control	Both
Direct HVAC & water heater control	Residential
Thermal storage for C&I	C&I
Conservation Voltage Reduction (CVR)	Both
Standard offer load management- commercial and governmental	C&I
Standard offer load management- residential	Res
Home energy displays	Res
Business DR: motors, pumps, compressors, lighting	C&I
Grid connected BEMS	C&I

## Rate Structures

Measure Name
Time of use rate
Real time pricing
Critical peak pricing
Peak rebate program