

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Orlando Utilities
Commission for Approval of 2020
Demand-Side Management Plan

DOCKET NO. 20200058-EG

FILED: April 13, 2020

**ORLANDO UTILITIES COMMISSION'S RESPONSES TO STAFF'S FIRST
DATA REQUEST RE: OUC'S 2020 DEMAND-SIDE MANAGEMENT PLAN**

The Orlando Utilities Commission ("OUC"), pursuant to the request made by letter from Mr. Donald Phillips dated March 31, 2020, hereby provides its responses to the Commission Staff's First Data Request regarding OUC's 2020 Demand-Side Management Plan.

Respectfully submitted this 13th day of April, 2020.

/s/ Robert Scheffel Wright

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The Orlando Utilities Commission ("OUC") hereby provides the following responses to Staff's First Data Request regarding OUC's 2020 Demand-Side Management Plan filed in this docket on February 24, 2020.

1. Have any modifications been made to the residential home energy survey program since the Commission's approval of the program in 2015? If so, please explain what the modifications are.

OUC Response:

Before 2012, OUC used paper energy audit forms. From 2012 to 2014, OUC utilized an electronic audit form product developed by TotalMobile. Beginning in 2015, OUC has used Nexant's iEnergy Onsite tool to create electric and water audit reports for customers. These reports include savings estimates and simple savings payback calculations for a variety of measures including items that OUC offers a rebate in order to help customers prioritize certain improvements. Attachment A to OUC's Responses is an example of the report that OUC provides to its customers.

2. Please provide the historic and projected portion of a monthly residential customer bill (for 1200/kWh-month usage) associated with the DSM Plan, in nominal dollars. Please provide an electronic version of the table below in Excel format with your response.

OUC Response:

DSM Plan Cost Portion of Monthly Residential Customer Bill, 2015-2024
Residential Customer, 1,200 kWh/month
Monthly Bill Impact (Nominal \$)

2015	\$	0.78
2016	\$	0.73
2017	\$	0.37
2018	\$	0.35
2019	\$	0.42
2020	\$	0.43
2021	\$	0.44
2022	\$	0.44
2023	\$	0.44
2024	\$	0.44

An Excel spreadsheet showing the calculations of the Residential bill impacts is being provided simultaneously with OUC's Responses to the Staff's Data Requests.

CERTIFICATE OF SERVICE

I **HEREBY CERTIFY** that a true and correct copy of the foregoing has been furnished by electronic mail this 13th day of April 2020, to the following parties.

Charles Murphy Gabriella Passidomo Office of the General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 cmurphy@psc.state.fl.us gpassido@psc.state.fl.us	J.R. Kelly Patricia Christensen Thomas A. David A. Mireille Fall-Fry Office of Public Counsel c/o The Florida Legislature 111 West Madison Street, Room 812 Tallahassee, Florida 32399 kelly.jr@leg.state.fl.us christensen.patty@leg.state.fl.us david.tad@leg.state.fl.us fall-fry.mireille@leg.state.fl.us

Robert Scheffel Wright
Attorney

FPSC DOCKET NO. 20200058-EG,
OUC'S 2020 DSM PLAN

OUC'S RESPONSES TO STAFF'S FIRST DATA REQUEST NO. 1

ATTACHMENT A

Example of OUC Residential Energy Audit Report

RESIDENTIAL *energy* AUDIT



CONTACT INFORMATION

Customer



Conservation Department

David Mayer

407-434-2256

conservationsupport@ouc.com



Congratulations in taking your first step toward energy efficiency by participating in OUC's Residential Energy Audit program. Our Conservation Specialist has completed an energy evaluation at your home. OUC is making a series of recommendations listed below based on the survey questions answered. The list includes the following:

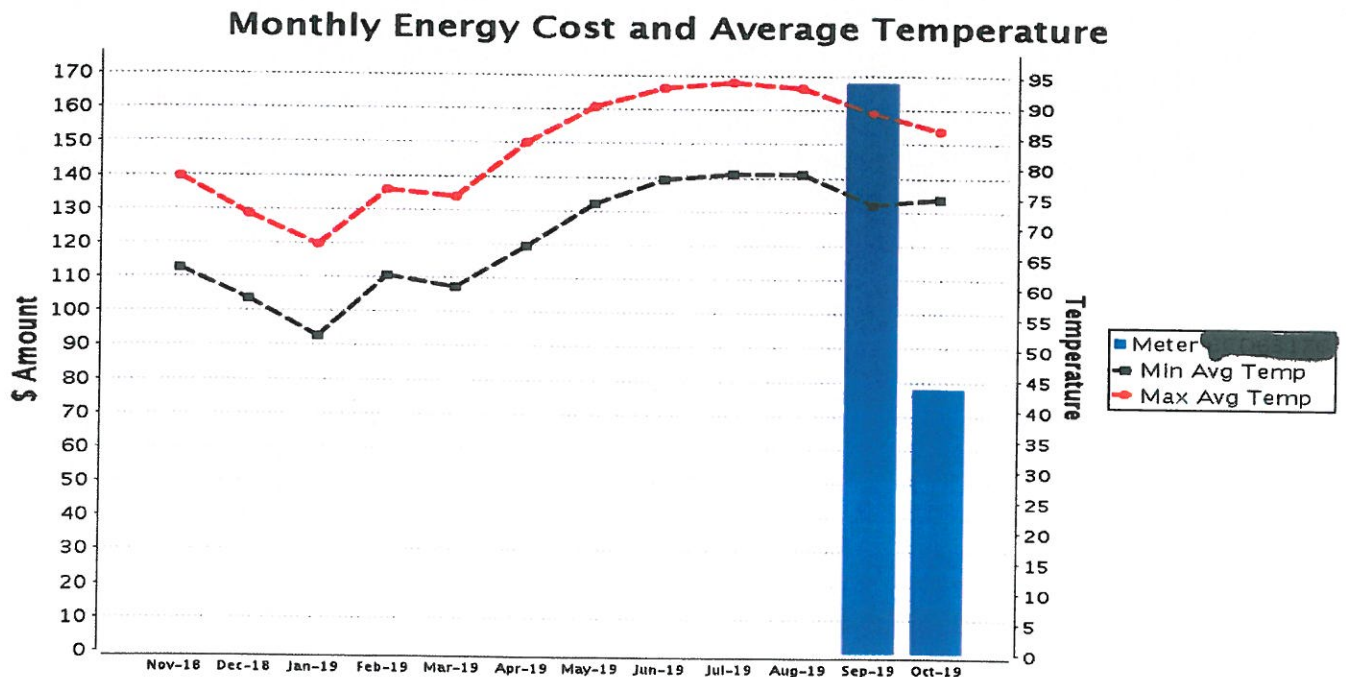
- Recommended cost and saving opportunities.
- Recommendations prioritized by ease of implementation.
- Rebate and incentives that may be applicable.

To learn more ways to save energy, water and money visit www.ouc.com

ENERGY ASSESSMENT SUMMARY

OVERVIEW

Based on the energy assessment completed on November 04, 2019, we recommend that you implement the cost-effective, energy-saving improvements found in this report to maximize savings. A summary of the recommended improvements can be found starting on Page 3.



RECOMMENDATIONS



WATER HEATING

Consider upgrading to Energy Star Heat Pump Water Heater

Utilizing super-efficient technology, an Energy Star Heat Pump Water Heater (HPWH) can cut water heating costs by more than half. HPWHs use electricity to move heat from one place to another instead of generating heat directly. A HPWH takes the heat from surrounding air and transfers it to water in an enclosed tank. OUC Rebate Available: 100% of cost, up to \$500.

Consider insulating exposed hot water line

Insulating your hot water pipes reduces heat loss and can raise water temperature 2°F - 4°F hotter than uninsulated pipes can deliver, allowing for a lower water temperature setting. You also won't have to wait as long for hot water when you turn on a faucet or showerhead, which helps conserve water.

Consider using the Heat Pump or Hybrid setting

Heat Pump is the most efficient mode providing you with the greatest amount of savings. In this mode, the water heater only operates the heat pump to heat the water. The heat pump technology absorbs the heat in ambient air and transfers it into water. In the "Hybrid" setting your unit will use less energy, while still providing you with a fast recovery time. If needed, the standard electric elements may activate for a faster water temperature recovery time. Once the system determines that demand has been met, it will automatically revert back to using the heat pump only.

Consider using professional plumbing service for leaks, heating issues, etc.

In many cases, a qualified, professional plumber can address your issue and prevent you from consuming excessive amounts of water and possibly electricity. For more information visit the "Additional Resources" section on the last page of this report.

Consider reducing shower run time

Showering is one of the leading ways we consume water. A typical showerhead uses 2.5 gallons per minute and the recommended shower time is five minutes or less. Each minute that you reduce shower run time will save water and reduce demands on your water heater, which saves energy.

Consider turning off the water heater when away

If you're away for two or more days turning off the water heater at the breaker can save energy. If applicable, use your water heater's "Vacation" setting which is found on newer heat pump/hybrid models.

Consider reducing recirculation pump runtime

Running the hot water recirculation pump 24/7 is unnecessary and can waste significant amounts of energy due to heat loss. Consider setting the pump to run only during hours when you commonly use hot water.

Consider adding a timer to your recirculation pump

Running the hot water recirculation pump 24/7 is unnecessary and can waste significant amounts of energy due to heat loss. Consider setting the pump to run only during hours when you commonly use hot water.

Consider reducing water heater temperature settings

Although some manufacturers set water heater thermostats at 140F, the recommended setting is 120F. Savings resulting from turning down your water heater temperature are based on two components: reduced standby losses (heat lost from water heater into surrounding area); and consumption (from water demand or use).



TOILET

Consider installing low flow toilet(s)

Toilets can typically account for the largest portion of your monthly water consumption. Older, inefficient toilets also happen to be a major source of wasted water. OUC Rebate Available: \$50 per toilet installed.

Consider reducing the level of water in the toilet tank

Consider reducing the level of water in your toilet tank 1" below the top of the overflow tube.

Consider replacing the toilet flapper valve

An old toilet flapper can be the cause for a running toilet. Since this part is made of rubber it can get hard and break down over time. Once the plastic is worn out it will not form a tight enough seal to stop the flow of water as it should. Luckily the flapper is an inexpensive part that can be easily replaced.



POOL, SPA AND HOT TUB

Consider reducing your pool heater temperature settings

Pool water temperatures typically range from 78°F to 82°F. The American Red Cross recommends a temperature of 78°F for competitive swimming. This coincides with good fuel savings. However, this may be too cool for young children and the elderly, who may require a temperature of 80°F or higher. The energy consumption for each degree rise in temperature will cost 10% - 30% more in energy costs, depending on your location. In warmer climates, this percentage is higher because of the relatively low cost of heating a pool at 78°F.

Consider reducing your hot tub temperature settings

Modern hot tubs come from the factory with a high temperature limit set at 104° F. By setting your temperature at 102°F (or even a bit lower) you can reduce overall energy consumption. If your hot tub is equipped with an "energy saver" setting use it, and make sure that your hot tub is covered. Also, turn down the thermostat when you are not using the hot tub for extended periods of time.



AIR CONDITIONING

Consider upgrading to a high efficiency heat pump system

Older central air conditioner units can be very costly to operate and maintain. New units are more efficient and use less energy while lowering your electric bill. Annual cooling/heating energy savings for a 15 SEER or greater unit could be up to 33% or more when compared to a 10 SEER unit. OUC rebate available: up to \$1,630 per heat pump system.

Also, if your air conditioner is the wrong size, then it is wasting energy and costing you money each month. Oversized air conditioners use unnecessary energy, and systems that are too small must work overtime to keep your home comfortable. Ask a licensed contractor to perform a Manual J calculation to determine what is optimal for your home. OUC rebate available: \$90 when processed with a qualifying rebate.

Keep the outdoor condensing unit clear of obstructions

Make sure no obstructions restrict airflow to the outdoor unit. Grass clippings, leaves, or shrubs crowding the unit can cause the unit to work harder and use more energy.

Insulate the large refrigerant line adjacent to the outdoor condensing unit

Insulating this line will help to improve system efficiency and can lead to a reduction in cooling costs.

Consider having professional HVAC service performed

Proper maintenance by a qualified technician is one of the most important steps you can take to prevent future HVAC issues. Just as a tune-up for your car can improve your gas mileage, a yearly tune-up of your heating and cooling system can improve efficiency and comfort. For more information visit the "Additional Resources" section on the last page of this report.

Consider using portable electric heaters

Small space heaters can be less expensive to use if you only want to heat one room or supplement inadequate heating in one room. They can also boost the temperature of rooms used by individuals who are sensitive to cold without overheating the entire structure. You should carefully follow all the manufacturer's installation and operation instructions.

Consider removing additional filters

The ideal location for the air filter is at the air handler or main return vent. More than one filter can reduce air flow, which causes strain on your HVAC system and can cause your operating costs to rise.

Use correct size air filters to protect evaporator

Be sure to purchase the right size filter to match your air handler. Consult the owner's manual for manufacturer-recommended specifications. Filters can be sized in two ways: nominal and actual. Nominal sizing is the approximate size of the filter, rounded up to the nearest whole inch. This makes filter sizes easier to identify when shopping, which is why you'll find that nominal sizing is most prominent on product packaging. The actual size is the exact size of the filter. Air filters can also vary by thickness. They can be less than 1" thick, or more than 4" thick. The filter should fit snugly in the chamber; loose filters may let air pass around the filter instead of through it.

Consider checking your filter every month

Check your filter every month, especially during heavy use months (winter and summer). If the filter looks dirty after a month, change it. At a minimum, change the filter every 3 months. A dirty filter will slow down air flow and make the system work harder to keep you warm or cool, wasting energy. A clean filter will also prevent dust and dirt from building up in the system, leading to expensive maintenance and/or early system failure.



WINDOW

Consider applying window film or solar screens to any east/west/south facing windows

Installing solar window film can help reflect the heat during hot summer days. Your cooling unit will become more efficient. OUC Rebate Available: \$0.55 per sq. ft. installed.

Consider upgrading to Energy Star windows

Energy-efficient windows can help minimize your heating, cooling, and lighting costs. They provide comfort and they also protect your valuables from harmful sun rays. OUC Rebate Available: \$1.50 per sq. ft. installed.



INSULATION

Consider upgrading your attic insulation

The attic is the easiest place to add insulation; it can help lower your energy costs and keep you comfortable through the seasons. To qualify for a rebate (\$0.10/sqft), the final insulation level must be R-30 or higher.

Consider insulating the attic access

The attic access, such as an attic hatch, pull-down stairs, or knee-wall door, often goes uninsulated, representing one of the biggest deficiencies in the thermal barrier between the attic and conditioned space. This gap in the attic insulation increases heat loss in winter and heat gain in summer, and makes indoor living areas uncomfortable.

Consider insulating converted garage spaces

Now that your garage is a conditioned space it needs to be insulated just like the rest of your structure. Insulation acts as a barrier to heat loss and heat gain, keeping your converted garage area cooler in summer and warmer in winter. This can lead to increased comfort levels and decreased cooling and heating costs.



DRYERS

Consider upgrading to an energy efficient dryer

Electric clothes dryers that meet the ENERGY STAR Emerging Technology Award criteria run at least 30% more efficiently than standard dryers.

Consider checking and cleaning your dryer vent

Be sure to remove the lint from your dryer vent on a regular basis. Doing this will improve air circulation and increase the efficiency of the dryer. It's also an important safety measure.

Consider drying loads consecutively

Take advantage of a warm dryer to reduce the run time of the dryer and to save energy.

Consider removing lint from your dryer vent on a regular basis

Cleaning the filter after every load will improve air circulation and increase the efficiency of the dryer. It's also an important safety measure.

Consider hang drying your clothes

Weather permitting, hang your clothes outside to dry.



ROOFING

Consider applying/installing Energy Star cool/reflective roof products

A cool/reflective roof reflects the sun's rays to help lower roof surface temperature and increase roof life. It helps lower your energy bill during the summer by preventing heat absorption. If you're considering upgrading your roof or applying a cool/reflective product, visit the Oak Ridge National Laboratory and Lawrence Berkeley National Laboratory's Roof Savings Calculator. For more information visit the "Additional Resources" section on the last page of this report.

Consider installing a continuous ridge vent

Ridge vents, in conjunction with soffit vents, provide sufficient natural attic ventilation which can lower your cooling costs. Ridge vents allow outside air to flow naturally upward and out of attic which can promote a cooler, drier attic. This helps to provide year-round performance for consistent ventilation without energy consumption.

CLOTHES WASHERS



Consider upgrading to Energy Star Clothes Washing Machine

ENERGY STAR certified clothes washers use about 20% less energy and 35% less water than regular washers.

Consider using only cold water to wash clothes

Water heating consumes about 90% of the energy it takes to operate a clothes washer. Unless you're dealing with oily stains, washing in cold water will generally do a good job of cleaning. Switching your temperature setting from hot to warm can cut energy use in half. Using the cold cycle reduces energy use even more.

Consider only washing full loads

Clothes washers use about the same amount of energy regardless of the size of the load, so run full loads whenever possible.

Consider using the Energy Saver mode on your clothes washer and dryer

Many new clothes washer have an "auto-fill" setting that senses the amount of clothes placed in the unit and adds the appropriate amount of water. Many new clothes dryers come designed with a moisture sensor, which automatically shuts off the machine when clothes are dry. Not only will this save energy, but it will also save wear and tear on your clothes caused by over-drying.



THERMOSTAT

Consider upgrading your thermostat

You can save money on your heating and cooling bills by simply adjusting the temperature setting on your thermostat when you are away. You can do this automatically without sacrificing comfort by installing a programmable thermostat. Using a programmable thermostat, you can adjust the times you turn on the heating or air-conditioning according to a pre-set schedule.

An option that is gaining in popularity is the installation of a smart thermostat. A smart thermostat is a Wi-Fi enabled device that automatically adjusts heating and cooling temperature settings in your home for optimal performance.

Consider keeping the blower fan in the Auto setting

Most thermostats have a fan setting of On or Auto. If left in the On position the blower fan will operate 24/7 which increases your energy usage and can also cause decreased comfort levels. Be sure to keep the fan in the "Auto" setting to lower your operating costs and raise your level of comfort.

Avoid using the Emergency Heat setting when possible

Consider never placing a heat pump in the "emergency heat" setting on the thermostat. This switch will discontinue the use of your energy efficient heat pump system and solely rely on backup electric heating elements. This can potentially double or even triple your heating costs.

Install lock box on thermostat

A lock box can help to prevent unauthorized changes to your thermostat's temperature settings and, in many applications, keep your cooling and heating costs under control.

Relocate the thermostat from cold drafts and direct heat sources

The thermostat controls the length of time that your cooling and heating system operates by sensing the temperature in your conditioned space. Sources of cold drafts and direct heat can trick the thermostat into operating longer than necessary, which can elevate your cooling and heating costs.

Consider adjusting your cooling temperature settings

For each degree that you raise your thermostat setting when cooling your home, you will save 6%-8% off your cooling costs. We recommend setting your thermostat at 78 degrees when cooling your conditioned space, and consider raising the temperature 2-4 degrees whenever you're away for more than four hours.

Consider adjusting your heating temperature settings

For each degree that you lower your thermostat setting when heating your structure, you will save 6%-8% off your heating costs. We recommend setting your thermostat at 68 degrees when heating your conditioned space, and consider lowering the temperature 2-4 degrees whenever you are away for more than four hours.



WEATHERIZATION

Consider weatherizing your structure

Air leaks are a large source of energy loss. Hot or cold air escaping from inside your conditioned space wastes money. Air sealing is a process that addresses air leakage. It involves using caulking, foam or weather stripping to reduce the amount of air movement from inside the structure to outside the structure.

Consider sealing penetrations in air handler closet

Reducing the amount of air that leaks in and out of your conditioned space is a cost-effective way to cut heating and cooling costs, improve durability, increase comfort, and create a healthier indoor environment. Many penetrations in the air handler closet lead directly to the attic. It is important to seal these penetrations to avoid pulling unwanted attic air into your living space when cooling or heating your structure.

Consider sealing baseboards, switch plates, etc.

Reducing the amount of air that leaks in and out of your conditioned space is a cost-effective way to cut heating and cooling costs, improve durability, increase comfort, and create a healthier indoor environment.

Consider having a blower door test performed

A blower door is a powerful fan that mounts into the frame of an exterior door. The fan pulls air out of the structure, lowering the air pressure inside. The higher outside air pressure then flows in through all unsealed cracks and openings. The professional performing the test may use a smoke pencil or other device to detect air leaks. The main benefits of having a blower door test performed include reducing energy consumption due to air leakage and avoiding uncomfortable drafts caused by cold air leaking in from the outdoors.

Consider closing your chimney damper when not in use

Keep the chimney damper closed unless you have a fire burning. With the damper closed you can reduce air leakage/infiltration and increase comfort.

Consider sealing your pet doors

Reducing the amount of air that leaks in and out of your conditioned space is a cost-effective way to cut heating and cooling costs, improve durability, increase comfort, and create a healthier indoor environment.

Consider insulating and sealing the whole-house ventilation fan opening

The whole-house ventilation fan opening often goes uninsulated and represents one of the biggest deficiencies in the thermal barrier between the attic and conditioned space. By insulating and sealing this opening you'll reduce your heat loss in winter and heat gain in summer, and which will help to make your indoor living areas more comfortable.



PLUMBING

Consider installing water saving faucet aerator

Low-flow aerators that use a maximum of 0.5 gallons per minute can reduce a sink's water flow by 75% or more from the standard flow of 2.2 gallons per minute without sacrificing performance. Since these water savings will reduce demands on water heaters, they will also save energy.



POOL PUMPS

Consider upgrading to a variable speed pool pump

Conventional pool pumps, with only one speed, are set to run at the higher speeds required of the pool cleaner and waste energy during filtration operation by running faster than necessary. An ENERGY STAR certified pool pump can run at different speeds and be programmed to match the pool operation with its appropriate pool pump speed. The energy saved is considerable.

Consider reducing your pool pump runtime

Each hour that you reduce your pump's runtime can add up to savings. The recommended run time during the summer is 6-8 hours per day, and 4-6 hours/day during the winter. Ideally, the amount of water in your pool should be turned over or circulated once per day. Assuming you know the number of gallons of water in your pool and the gallons per minute that your pool pump circulates you can calculate the length of time it takes to fully circulate the water.

Consider installing a pool or hot tub cover

During the summer, a pool cover can reduce evaporation, and during the winter can help reduce heat loss.



FREEZERS

Consider upgrading to an Energy Star freezer

Consider replacing your old freezer with a new Energy Star qualified model.

Keep your freezer as full as possible

Keep your freezer as full as possible to help retain the desired temperature.

Consider unplugging or consolidating your additional freezer(s)

Consider consolidating your items and recycling your additional freezer to reduce energy consumption.



DUCTWORK

Consider repairing/replacing your ductwork

Consider having an OUC preferred duct repair contractor inspect and test your ductwork. Duct leaks make heating and cooling systems work longer and harder to maintain comfort. Properly sealed ducts will lower your energy bill and improve the efficiency and performance of your central heating and cooling systems. OUC Rebate Available: 100% of cost, up to \$100 for duct repair/replacement.



REFRIGERATORS

Consider upgrading to an Energy Star refrigerator

Thanks to recent improvements in insulation and compressors, today's refrigerators use much less energy than older models. With an ENERGY STAR certified refrigerator, you can maximize your energy and dollar savings without sacrificing the features you want. ENERGY STAR certified refrigerators are about 9-10% more energy efficient than models that meet the federal minimum energy efficiency standard.

Consider replacing refrigeration gasket

Make sure your refrigerator door seals are airtight. Test them by closing the door over a piece of paper or a dollar bill so it is half in and half out of the refrigerator. If you can pull the paper or bill out easily, the latch may need adjustment, the seal may need replacing, or you may consider buying a new unit.

Consider keeping your refrigerator full

Refrigerators and freezers are more efficient when full. Make sure that you don't overfill and leave room for cool air to circulate.

Consider cleaning your refrigerator coils

Your refrigerator coils should be cleaned regularly to ensure optimal efficiency of your refrigerator. A refrigerator coil brush can be purchased at most hardware stores.

Consider adjusting your refrigerator thermostat settings

Set your refrigerator thermostat between 38°F - 42°F and set your freezer between 0°F - 10°F for the most energy efficient performance.



SHOWER

Consider installing a water saving showerhead

Showering is one of the leading ways we consume water. WaterSense labeled showerheads allow you to save water which will reduce demands on water heaters and also save energy.



DISHWASHERS

Consider upgrading to an Energy Star dishwasher

ENERGY STAR certified dishwashers use advanced technology to get your dishes clean while using less water and energy. ENERGY STAR qualified dishwashers are, on average, 5% more energy efficient and 15% more water efficient than standard models.

Consider setting your dishwasher to economy mode

This setting generally reduces energy and water consumption.

For maximum efficiency, make sure to wash only full loads

Dishwashers use about the same amount of energy regardless of the size of the load, so run full loads whenever possible.

STANDBY POWER OR VAMPIRE LOADS



Consider unplugging your appliances or electronics

Many TVs, DVD players, cell phone chargers, power adapters, computers and other electronics use vampire power, or standby power, even when they're turned off. Although individually these devices typically draw only a very small amount of power, together it adds up, especially when left plugged in 24 hours a day, seven days a week. To combat these energy vampires and reduce your consumption, unplug the appliances when not in use. Using a surge protector with multiple sockets will allow you to turn off multiple devices with one switch. A timer can automate turning on and off those electronics that are used on a regular schedule. Replacing battery powered devices, such as cordless phones or rechargeable razors, with corded alternatives also cuts down on the standby power required to charge the battery and reduces energy lost in battery charging.



LIGHTING

Consider upgrading your lighting

Consider replacing your incandescent and halogen lighting with LED light bulbs. LED light bulbs last longer, consume less electricity, and produce less wasted heat than incandescent and halogen bulbs. Lights that are on for at least two hours per day are the best place to start replacing, especially exterior lighting that remains on overnight.

Consider turning off lights in unoccupied areas

Incandescent lights should be turned off whenever they are not needed, because they are the least efficient type of lighting. 90% of the energy they use is given off as heat, and only about 10% results in light. Turning lights off will also keep a room cooler, an extra benefit in the summer. While halogens are more efficient than traditional incandescent bulbs, they use the same technology and are far less efficient than CFLs and LEDs. Therefore, it is best to turn these lights off whenever they are not needed. Since they are already very efficient, the cost effectiveness of turning CFLs off to conserve energy is a bit more complicated. A general rule-of-thumb is this: - If you will be out of a room for 15 minutes or less, leave it on. - If you will be out of a room for more than 15 minutes, turn it off. The operating life of a light emitting diode (LED) is unaffected by turning it on and off. While lifetime is reduced for fluorescent lamps the more often they are switched on and off, there is no negative effect on LED lifetime. Therefore, turn off LED lights whenever you leave the room.

Consider installing motion sensors for outdoor security lighting



ELECTRIC AND WATER METERS

Consider recording daily and weekly domestic water meter readings

By learning to read your OUC water meter, you can take control of how much water you use each month. Simply by taking periodic readings, you can see when your personal "peak" usage may be and what appliances or applications may use more water than you think. Read your meter at the same time each day, preferably once a week. Keep track of the gallons used and compare it your previous readings to determine how it fluctuates depending on how you use water.

Consider recording daily and weekly electric meter readings

By learning to read your OUC electric meter, you can take control of how much energy you use each month. Simply by taking periodic readings, you can see when your personal "peak" usage may be and what appliances or applications may use more electricity than you think. Read your meter at the same time each day, preferably once a week. Keep track of the kWh used and compare it your previous readings to determine how it fluctuates depending on how your household uses appliances.

Consider recording daily and weekly irrigation meter readings

By learning to read your OUC special irrigation or reclaimed water meter, you can take control of how much irrigation water you use each month. Simply by taking periodic readings, you can see when your personal "peak" usage may be and allow you to make adjustments to your irrigation control timer. Read your meter at the same time each day, preferably once a week. Keep track of the gallons used and compare it your previous readings to determine how it fluctuates depending on your irrigation timer's settings and schedule.



EXTERIOR WALLS

Consider insulating your exterior block walls

Air leakage and improperly installed insulation can waste 20 percent or more of the energy you pay to heat and cool your structure.



FANS

Consider installing ceiling fans

Installing ceiling fans will improve comfort levels year-round. In fact, you could raise your cooling thermostat setting several degrees and remain comfortable while reducing your cooling costs. You can also utilize ceiling fans during the winter to help circulate warm air that collects near the ceiling. Just remember, you want downward air movement in the summer and upward air movement in the winter.

Consider turning off fans in unoccupied areas

Ceiling fans cool people, not rooms. If the room is unoccupied, turn off the ceiling fan to save energy. One ceiling fan left running 24/7 will consume approximately \$5 - \$8 per month which can impact your electric usage, especially if there are multiple fans operating.

Consider utilizing your ceiling fans

Utilizing a ceiling fan is an efficient way to stay comfortable during the hot summer months. Just remember, you want downward air movement in the summer and upward air movement in the winter.

IDENTIFIED IMPROVEMENTS

Name	Annual Energy Savings (kWh)	Annual Water Savings (Gallons)	Annual Cost Savings	Professional Installation Cost	Payback Time - Professional Installation (Years)	Self Installation Cost	Payback Time - Self Installation (Years)	OUC Rebate
Consider upgrading to Energy Star Heat Pump Water Heater - Home	2,722		\$318	\$2,000	4.7	\$1,500	2.8	\$500
Consider installing low flow toilet(s) - Home		13,870	\$71	\$345	3.8	\$155	1.1	\$75

IDENTIFIED IMPROVEMENTS

Name	Annual Energy Savings (kWh)	Annual Water Savings (Gallons)	Annual Cost Savings	Professional Installation Cost	Payback Time - Professional Installation (Years)	Self Installation Cost	Payback Time - Self Installation (Years)	OUC Rebate
Consider upgrading to a high efficiency heat pump system - Home	3,249		\$380	\$5,332	13.8			\$90
Consider applying window film or solar screens to any east/west/south facing windows - Home	581		\$68	\$1,412	18.3	\$289	1.8	\$93
Consider upgrading your attic insulation - Home	1,184		\$139	\$1,185	7.5	\$450	2.2	\$150
Consider upgrading to Energy Star windows - Home	2,388		\$265	\$12,560	34.0			\$338

IDENTIFIED IMPROVEMENTS

Name	Annual Energy Savings (kWh)	Annual Water Savings (Gallons)	Annual Cost Savings	Professional Installation Cost	Payback Time - Professional Installation (Years)	Self Installation Cost	Payback Time - Self Installation (Years)
Consider upgrading to Energy Star Clothes Washing Machine - Home	299		\$33	\$740		\$740	20.8
Consider insulating your exterior block walls - Home	385		\$43	\$1,108	25.7		

ADDITIONAL RESOURCES

Orlando Utilities Commission Website

- www.ouc.com

Energy Efficiency and Rebate Information

- Orlando Utilities Commission Rebate Information - www.ouc.com/rebates
- Energy Star website - www.energystar.gov
- Department of Energy Website - www.energy.gov
- Oak Ridge National Laboratory and Lawrence Berkeley National Laboratory's Roof Savings Calculator - <http://rsc.ornl.gov/>
- Oak Ridge National Laboratory's Attic Access Insulating & Sealing Guide - http://web.ornl.gov/sci/roofs+walls/insulation/fact_sheets/attic_access.pdf

Weatherization Information

- Department of Energy Weatherization Webpage - <http://energy.gov/public-services/homes/home-weatherization>

Orlando Utilities Commission Preferred Contractor Network

- www.ouc.com/pcn

Disclaimers

- The procedures used to make these installation cost and savings estimates are consistent with Commission rules and good engineering practices. However, the actual installation costs you incur and savings you realize from installing these measures may be different from the estimates contained in this audit report. Although the estimates are based on measurements of your house, they are also based on assumptions which may not be entirely correct for your household due to differing usage patterns.
- OUC does not warrant or guarantee the audit findings or recommendations, nor is the utility liable as a result of the audits for the acts or omissions of any person who implements or attempts to implement those conservation measures recommended by the auditor.

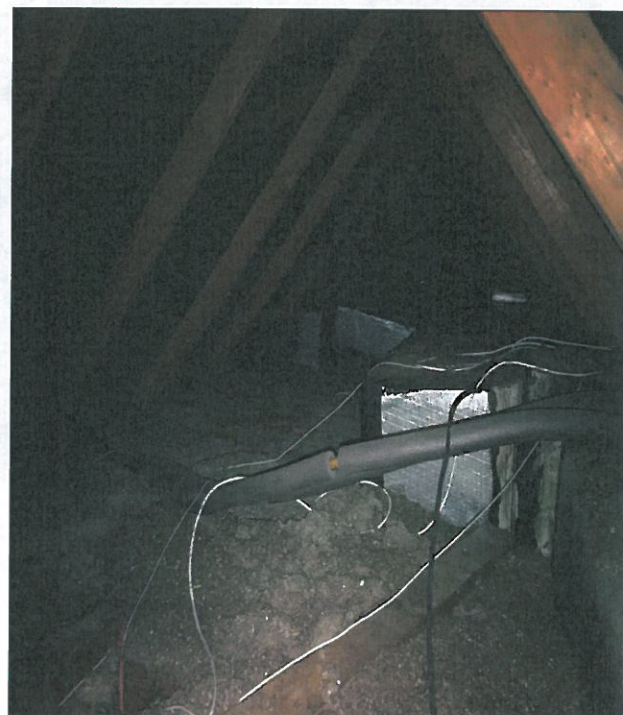
Audit Photos



Approximately 4"-5" blown insulation (R-10).



Consider having all accessible ductwork sealed and additional insulation (Final R-value R-30+).





Consider having the return plenum sealed.



Consider having window film applied to the west-facing windows.



Possibly the original air handler (1973).



The condenser was manufactured in 1989.

