



**ELECTRICITIES
ANNUAL CONFERENCE**

Aug. 12-14 | Williamsburg, Va.

Planning for and Implementing Time-of-Use Rates

Presented by:

Mark Brown & Carolyn Justice-Hinson

Fayetteville Public Works Commission

About Fayetteville PWC

- Fayetteville Population: 207,300, 6th largest in NC; 4th most diverse community in U.S.
- Services: Electric, Water, Wastewater
- Electric Customers: 80,000 (total 113,000 customers)
- Home of Ft. Bragg – very transient community
- PWC customer base turns over 20% each year
- 40% Rental Properties
- 1 of 4 electric utilities in Cumberland County: Duke, 2 EMCs



The Road to TOU Rates

- Strategic Plan (2009)
- Oracle Upgrade (2010-2014)
- AMI Planning/Installation (2012-2017)
 - AMI vendor-Sensus
 - Installation of towers, fiber, communications (2014)
 - 20 AMI Base Stations
 - Installation of 183,445 AMI meters (2014-2017)
 - 83,943 Electric
 - 99,502 Water



Why TOU Rates?

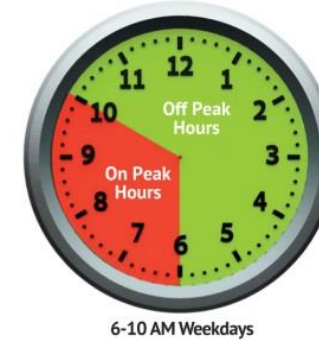
- **Align Retail Rates with Wholesale Power Costs**
 - Lower rate during hours when Wholesale Power Costs are lower
 - Large customers (Greater than 1,000 kW) CP rates
- **Give Customers a Choice**
 - Choose blend of comfort and savings
 - Choose current behavior vs. savings
 - Create opportunity for lower bills
- **Lower Customer Bills**
- **Educate Customers**
 - Impact of weather on their bills



About PWC TOU Rates

- TOU billing began May 1, 2019 (June Bills)
- Mandatory for Residential, Small Power
- On-Peak- 4 hrs Weekdays (\$.13 kwh)
- Off-Peak- 20 hrs Weekdays (\$.091 kwh)
- Weekends, PWC Holidays Off-Peak
- Small Commercial Less Than 35 kW
(On-Peak (\$.135 kwh) Off-Peak (\$.096)

Winter Peak Hours (November - March)



Summer Peak Hours (April - October)



Winter Peak:
November-March 6-10 am

Summer Peak:
April-October 3-7 pm



TOU Rate Structures

- **Mandatory Formula Based Coincident Peak (CP) Rates**
 - All customers greater than 1,000 kW
 - CP capacity charge passed directly to the customer
 - CP capacity charge changes automatically when DEP bill determinants change
 - CP capacity charges subject to annual cost true-up
 - Energy costs set by commission action



Customer Opportunities

- 20 Hours Each Weekday and All Weekends
 - TOU Price 10% Less than previous rate
 - TOU Price 32.5% Lower than On-Peak rate
- Move Discretionary Consumption to Off-Peak hours
 - Dishwasher
 - Clothes Washer
 - Clothes Dryer
- Use or install Programmable Thermostats and/or Water Heater Timers to reduce consumption during On-Peak Hours



Communicating TOU Rates

- TOU Rates adopted March 2018
- Customer communications began with rate adoption
- Early education to correspond with future summer peak hours
- Traditional-newsletter, website, social media, events, TV show, Radio, advertising, speakers bureau, events



TOU Educational Material

Save BIG "Off-Peak" with Time-of-Use Rates

The time has come! This month, PWC is introducing Time-of-Use Rates for its electric customers. Power will now be billed at higher rates during these Peak Hours which vary seasonally.

April - October
Weekdays from 3:00 p.m. to 7:00 p.m.
November - March
Weekdays from 6:00 a.m. to 10:00 a.m.

Learn how you can save!

- All the power you use during Off-Peak Hours is billed at noticeably lower rates.
- You can save big by adjusting your routines to use more power during Off-Peak Hours and conserving as much as you can during Peak times.
- You have at least 20 Off-Peak Hours every day (all day on weekends and holidays) to save.

✓ This month through October, remember to do things like laundry, running your dishwasher, etc. before 3:00 p.m. or after 7:00 p.m. on weekdays.

Learn more about conservation at faypwc.com

SAVE WITH SMART TIMING!

"Smart Appliances" can be connected to your smartphone, tablet or computer to give you more control than ever over your power usage. They can make a huge difference in helping you save money, especially when you want to take advantage of off-peak hours!

Summer Peak Hours Start - October

Time-of-Use Rates begin this month. MAY 2019

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

May is Electrical Safety Month
For valuable tips to keep you and your family safe around electricity, visit faypwc.com/safety.

May 3 - 11 is National Drinking Water Week
Did you know PWC was first in the state to earn the EPA "Director's Award" for exceeding federal drinking water standards, and we've maintained these Highest Partnership for Safe Drinking Water standards since 2000. PWC's annual Water Quality Report is released this month - check it out at faypwc.com.

Big Partnership for Safe Water

Deliverables are subject to change without notice.

Time it Right & Save. Beat the Peak!

Coming May 2019, save when you shift energy use to off peak hours when rates are the lowest! Off Peak hours occur 20 hours a day on weekdays and all day on weekends & holidays.

Winter Peak Hours (November - March) **Summer Peak Hours (April - October)**

6-10 AM Weekdays **3-7 PM Weekdays**

Visit Your Account Manager at www.faypwc.com to view your energy use and learn how to save with Off Peak rates.

MAKE TIME-OF-USE RATES WORK

Tips for Managing On-Peak/Off-Peak Energy Use in the Workplace

YEAR-ROUND:

- Install smart or programmable thermostats; avoid allowing employees access to adjust temperatures and/or educate them on what happens when they do.
- Install motion sensors on outside lights or in rooms that are not frequently used; educate staff about leaving the lights on in unoccupied rooms.
- Stage non-essential equipment to run during off-peak times.
- Strategically schedule required equipment to run sequentially, not concurrently, during On-Peak hours if possible.

WINTER:

- Pre-heat buildings prior to the On-Peak Hours window by setting a schedule with smart/programmable thermostat.
- Evaluate how your heat pump operates to stage on auxiliary electric heat; it can be changed to respond to outside temperature, not temperature increase at the thermostat.
- Eliminate all space heaters.

SUMMER:


- Allow the use of small personal fans or overhead fans in the summer to increase personal comfort while keeping the temperature at the recommended setting.
- Close blinds at the end of day.

For more tips on managing energy use in the workplace, visit: www.energystar.gov/buildings/service-providers

- Created educational material, magnets, videos, wall calendar
- Message: What was coming, how they could benefit, start changing habits now



TOU Educational Material- Online Resources



HOME | REPORT EMERGENCY | STORM CENTRAL | ESPANOL | LOGIN

CUSTOMER SERVICE (910) 483-1382

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SEARCH... GO

TIME-OF-USE RATES

Time-of-Use Rates – Time It Right and Save

Beginning in May 2019, PWC will implement Time-of-Use Rates for residential and small commercial electric customers. These rates will be more in line with how we have to purchase power from Duke Energy - at higher rates during peak hours, when consumers typically use more power.

Right now, you can start to plan and get in practice (TOU tips), so you can take advantage of Time-of-Use Rates to lower your electric bills by conserving and shifting consumption from peak to off-peak hours. Rates for electricity used during off-peak hours will be 30% lower than during peak times.

Summer Peak Hours

April - October from 3:00 PM - 7:00 PM (Mon. - Fri.)

Winter Peak Hours

November - March from 6:00 AM - 10:00 AM (Mon. - Fri.)

****Note that only four hours of the day are considered peak times: 20 hours each day - and all day on weekends and holidays - are off peak.**

Time-of-Use Rates Overview

Time-of-Use Rates (March 2019)

TIME OF USE RATES

- ON Peak Hours Are Only 4 Hrs of the Day
- OFF Peak Hours Are 20 Hrs of the Day (Plus Weekends & Holidays)

PWC 101 w/ David Trego (PWC General Manager)

PWC 101: Time-of-Use Rates

Learn about Time of Use!

OFF-PEAK

PEAK

POWER TOOLS

Home Efficiency Audit Program (HEAP)

Incentive Programs

Online Energy Use Calculator

Time-of-Use

FAYPWC YouTube

CONSERVATION TIPS

Energy Conservation Tips


Temp Tracker 365

Energy Forecast

Watering Schedule

Water Wise Demo Garden

Water Conservation Tips



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SEARCH... GO

ONLINE USAGE CALCULATOR – CLOTHES DRYER

Calculate the ENERGY cost of your Clothes Dryer

A typical load of laundry takes about 45 minutes to dry. An ENERGY STAR® clothes dryer uses about 20% less energy than a standard dryer.

Select the type of dryer you own, and enter the number of loads you dry per week. Categorize the loads by on-peak and off-peak hours.

Cleaning your lint trap after each use and periodically cleaning your dryer vent, can save you additional utility dollars!

Select Your Type of Clothes Dryer

Standard

Check out your savings per year by choosing an ENERGY STAR® Clothes Dryer

Adjust slides

Total loads per week		10
Loads per week		
Monday - Friday 6 am - 10 am		4
Loads per week		
Monday - Friday 3 pm - 7 pm		4
Loads during off-peak seasonal hours		2

Usage (kWh) per year 1,422

Cost per year \$151.60

By using your clothes dryer during off-peak seasonal hours only, you can save: \$22.19 per year

By purchasing an ENERGY STAR® clothes dryer, you can save: 296 kWh per year \$31.58 per year

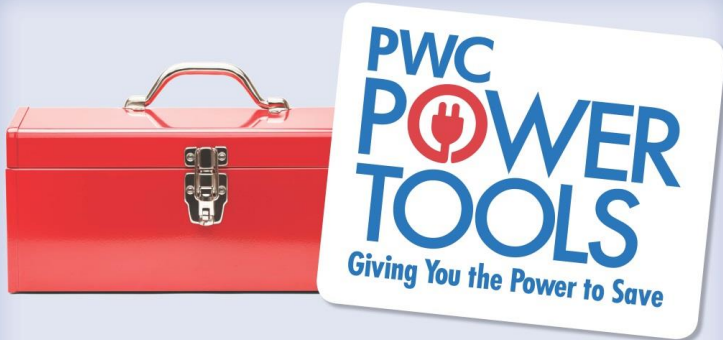
The calculated cost estimates are based solely on energy usage (kWh) and do not include other billable charges

Powered by NEXUS




Time-of-Use Tool Kit

Incentive Programs, On-Line Resources




Handy Tools for Lowering Your Bills

- Smart Thermostat Incentive Program
- HVAC Incentive Program
- Insulation Replacement Incentive Program
- Ductwork Replacement Incentive Program
- ENERGY STAR® Appliance Incentive Program
- Rain Sensor Incentive Program
- LED Holiday Lighting Incentive Program
- LED Lighting Incentive Program
- Home Efficiency Audit Program (HEAP)
- On-Line Energy Use Calculators
- My.faypwc.com Customer Web Portal



PWC
Fayetteville's
HOME TOWN UTILITY
www.faypwc.com

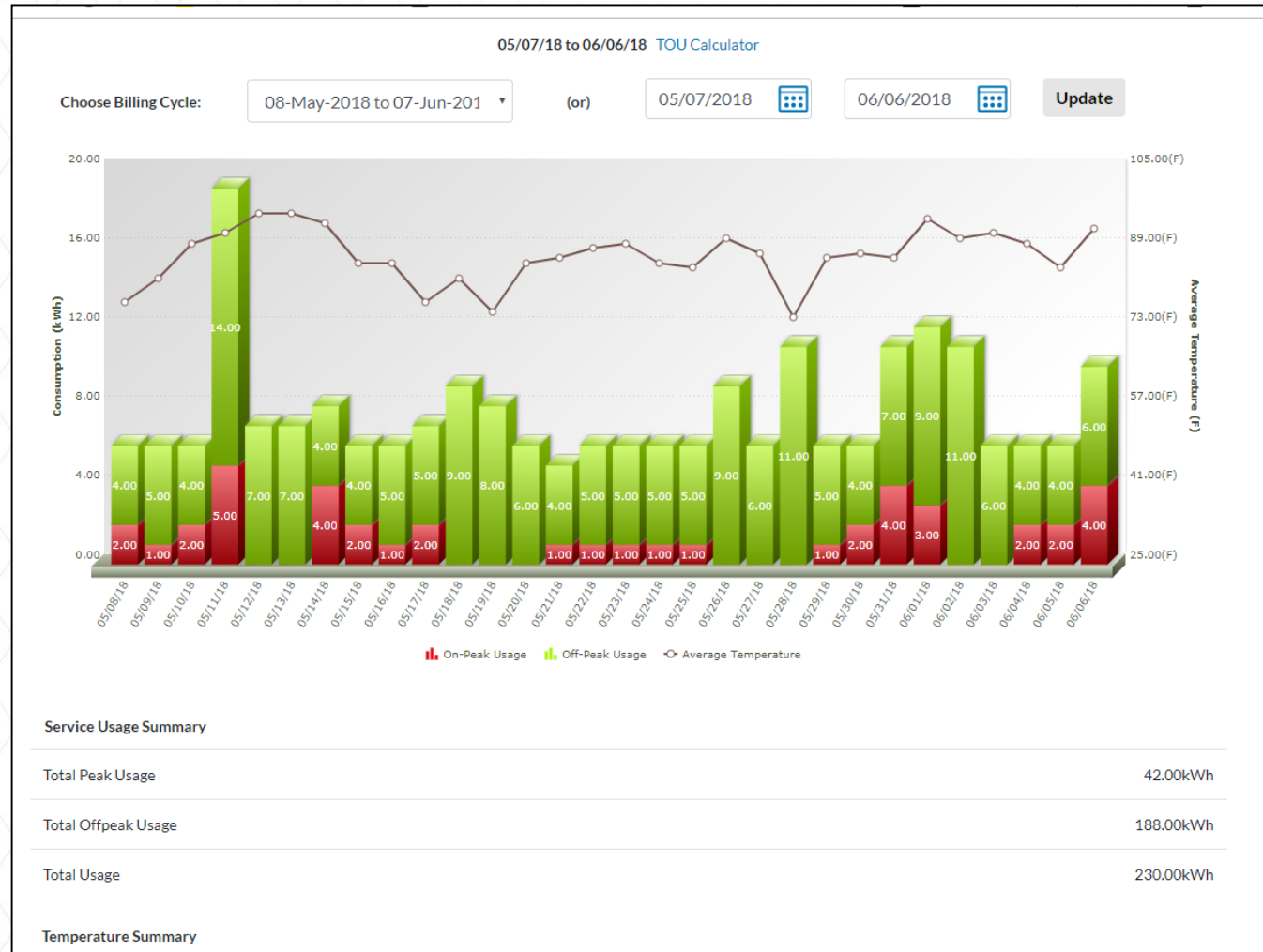
For more information on incentives check out our website.



1000 4 1000



Time-of-Use Tools- On-line Account Manager




- Introduced in Fall 2018
- Spring 2019: Peak usage historical data
- View Daily Use (billed)
- Vendor: Milestone



Time-of-Use Tools- New Bill Design

- May, 2019-1 month prior to first bill with TOU usage
- Vendor: Utilitec



Fayetteville Public Works Commission
Call Center: 910-453-1382
(Mon-Fri 8AM-6PM)
customer.service@faypwc.com

Account Information

Account Number: 1589320000
Account Name: Margaret Tingie White
Service Address: 102 Stokes Ct

My Current Charge Breakdown


For an explanation of your bill charges visit faypwc.com/about-your-bill/

Electric Charges

Water Charges

Irrigation Included

Sewer Charges



\$198.28

My Usage Snapshot

Service	This Month	Last Month	Last Year
Electric	920 kWh	1240 kWh	840 kWh
Water	1480 GAL	1540 GAL	1030 GAL


Message Center

Account messaging is driven by the customer's specific data, and can range from a past due message to a status update on their meter reading situation that month.

Utilitec will provide a library of examples of account specific messaging to see what PWC would like to implement. This will be the section that will display behavioral messaging.

Please bring entire statement when paying in person OR send the bottom portion of your statement if paying by mail.

Bill Date: 11/14/18



FAYETTEVILLE PUBLIC WORKS COMMISSION
PO BOX 1029
Fayetteville NC 28302-1029

Account Number: 1589320000
Current Charges due 12/10/18: \$198.28

Total Amount Due \$198.28

AMOUNT ENCLOSED

☐ Contribution to Project People Who Care - \$

SEND REMITTANCE TO:

PUBLIC WORKS COMMISSION
PO BOX 7000
FAYETTEVILLE NC 28302-7000

62461 AV0381 00070-UTC1616-ST.16RP2
MARGARET TINGIE WHITE
C/O RALPH WHITE
PO BOX 53067
FAYETTEVILLE NC 28305-3067

00000

MockUp #1B

000019626 3549320000 000019626 3549320000 6

My Electric Bill Details

Electric Residential Charges
10/16/18 - 11/14/18 (29 Days)

Basic Facility Charges	\$21.50
On Peak Energy Charge - 400 kWh	\$92.92
Off Peak Energy Charge - 520 kWh	\$10.00
NC Renewable Energy Rider	\$1.00
Coal Ash Rider	\$2.00
NC Sales Tax	\$8.22

Area Lighting Charges
10/16/18 - 11/14/18 (29 Days)

1100 WATT SODIUM VAPOR HPS at \$12	\$12.00
NC Sales Tax	\$0.84

Total Electric Charges \$136.48

My Water Bill Details

Water Residential Charges
10/15/18 - 11/14/18 (30 Days)

Basic Facility charge - Inside	\$13.00
Water Charge - 1480 GAL	\$3.63

Water Residential Irrigation Charges
10/15/18 - 11/14/18 (30 Days)

Basic facility charge - Inside	\$20.80
Backflow Inspection Charge - Inside	\$1.60

Total Water Charges \$39.03

My Sewer Bill Details

Sewer Residential Charges
10/15/18 - 11/14/18 (30 Days)

Basic facility charge - Inside	\$13.00
Water Charge - 1480 GAL	\$7.77

Total Sewer Charges \$20.77

My Usage History

Electric Meter: 239349
Reading Period: 10/16/18 - 11/14/18

Current Read	Previous Read	Multiplier	Usage
1120	1097	40	920 kWh

Water Meter: 79072478
Reading Period: 10/15/18 - 11/14/18

Current Read	Previous Read	Usage
41380	39900	1480 GAL

Irrigation Meter: 78070702
Reading Period: 10/15/18 - 11/14/18

Current Read	Previous Read	Usage
20	20	0 GAL

Ways to Pay For more information including fees and methods accepted visit faypwc.com/payoptions/

Mail

PWC
PO BOX 7000
Fayetteville, NC
28302-7000
Return with bill
payment payable to PWC

AutoPay

Set it and forget it!
Your bill is automatically
drafted from your bank
account each month on
due date.
To enroll, call 910-223-4134.

Phone

Call 1-833-4FAYPWC
24/7 (1-833-422-9192)
Pay by check (no fee)
or credit/debit card
(fee applies).
All major cards accepted

Online or eBill

Online Account Manager
Pay electronically via a
secure link in the email or
through the Online portal.
Repay by check (no fee) or
credit/debit card (fee applies).
Visit faypwc.com to enroll!

Western Union

WU Payment Centers
including Food Lion stores
Cash only, must have
PWC account number
May not post immediately.
Small fee applied by WU.

In Person

Customer Service
8:30am-5:30pm
Cash, check, & money
order accepted ONLY.
Night depository for
payment dropoff.

Bill is due and payable now: In accordance with PWC service and rate regulations, if payment is not received by due date, a late fee will be charged, service is subject to disconnection and a deposit may be required/increased. A 4% late fee will apply on unpaid current charges and 1% late fee will apply on unpaid previous charges.

Payment Extensions: Granted on a case-by-case basis depending on need and/or credit history. Request an extension through the Online Account Manager or by calling 910-453-1382 prior to your due date.



Time-of-Use Tools- Going Forward

PWC POWER TOOLS
Giving You the Power to Save

Tips to Save with Time-of-Use Rates

- Do laundry, run your dishwasher, use other appliances during Off-Peak hours.
- Limit hot water use during Peak hours. Or, turn your water heater off during Peak times; use a timer to do it automatically.
- Unplug unused devices to conserve energy. (cell chargers, laptops, game systems, etc.)
- During summer Peak hours, turn your A/C up (78° recommended); turn heat down (68° is great) during winter Peak times. Add a Smart Thermostat for automatic, reliable control of your temperature settings.

Visit www.faypwc.com for comprehensive tips to conserve and incentive tools to help you save.


PWC
Fayetteville
Horry County Utility
faypwc.com

5650 67H 6/19

Handy Tool for Managing Time-of-Use Rates

Use this magnet to remind you when you can save.

Shift Energy Usage to "Off-Peak" and Save Big!
Adjust routines to use more power during Off-Peak Hours.
Conserve all you can during Peak Hours.



Winter Peak Hours (November - March)
6-10 AM Weekdays

Summer Peak Hours (April - October)
3-7 PM Weekdays

Weekends and PWC observed holidays are all Off-Peak.
Visit Your Account Manager at www.faypwc.com to view your energy use and learn how to save with Off-Peak rates.

- Direct Mail-Magnet
- Additional On-line Data (hourly), current (to be billed)
- Mobile App (Pay, View Data & Acct info)
- Targeted communications (off-peak weekends)
- More Incentive Programs
 - Expand Peak Savings Pilot Program
- Change of Peaks (November & April)
 - Digital Bill Boards



Summer Peak Hours
(April - October)
3-7 PM Weekdays

Summer Peak



Winter Peak Hours
(November - March)
6-10 AM Weekdays

Winter Peak



TOU Rates- Early Results

- Over the first two months of Time-of-Use rates, saw positive shift of usage from on-peak to off-peak period.
- 5% shift of electric usage to the less expensive off-peak period

May & June 2019: 15.6%

May & June 2017, 2018: 16.4%



TOU Rates- Early Results

- Average residential electric bill in May & June was 2% lower (\$2.57)
2018-\$115.21
2019-\$112.64
- Average residential cost per kwh in May & June was .01 lower
2018: 0.1010
2019: 0.0990

PWC electric bills decrease on average

But not everyone saw a lower bill in May and June

By John Henderson
Staff writer

Fayetteville residents on average paid lower monthly electric bills in May and June compared with the same

electricity is higher, and a lower rate during times when demand for electricity is lower.

Before the program kicked off, PWC officials pointed out that customers who didn't make any changes in how they use electricity while using the same amount of power each month...

"I don't do laundry. I don't run any unnecessary appliances between 3 (p.m.) to 7 (p.m.)," he said. "I like it just because of the fact that I have the power to use less energy during that time, and I know my bill will be less."

... have been taking steps to use less power during the on-peak hours, such as not turning on the pool pump during those hours and shutting down the air for a couple of hours. "It is a matter of a lifestyle change," he said. "If you modify your lifestyle, those (electric bills) could go down."





Thank You

**Participate in conference discussions on Twitter:
#ECAC2019**



@ncpublicpower



facebook.com/Electricities



@ElectriCitiesNC

