



Dianne M. Triplett
DEPUTY GENERAL COUNSEL
Duke Energy Florida, LLC

May 3, 2018

VIA ELECTRONIC DELIVERY

Ms. Carlotta Stauffer, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: *Petition for limited proceeding for approval of a smart meter opt-out tariff by Duke Energy Florida, LLC; Docket 20180088-EI*

Dear Ms. Stauffer:

Please find enclosed for electronic filing, Duke Energy Florida, LLC's Response to Staff's First Data Request (Nos. 1-16).

Thank you for your assistance in this matter. If you have any questions concerning this filing, please feel free to contact me at (727) 820-4692.

Sincerely,

/s/ Dianne M. Triplett

Dianne M. Triplett

DMT/cmck
Enclosure

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 3rd day of May, 2018.

/s/ Dianne M. Triplett

Attorney

<p>Kyesha Mapp Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 kmapp@psc.state.fl.us</p>	<p>Elisabeth Draper Henry Merryday Division of Economics Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 edraper@psc.psc.state.fl.us hmerryda@psc.state.fl.us</p>
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**DUKE ENERGY FLORIDA, LLC'S (DEF), RESPONSE TO
STAFF'S FIRST DATA REQUEST (NOS. 1-16) REGARDING
DEF'S PETITION FOR LIMITED PROCEEDING FOR
APPROVAL OF A SMART METER OPT-OUT TARIFF
DOCKET NO. 20180088-EI**

1. Please refer to paragraph 13 of the petition.
 - a. Will all non-communicating meters be the standard AMI meter with the radio communication capability deactivated?
 - b. Will DEF explain to customers requesting service under the opt-out tariff that the meters installed may be modified AMI meters?

RESPONSE:

- a. No, during project deployment, the plan is to use a digital meter purchased without any communication capabilities. However, we reserve the right to use an AMI meter with the radio turned off.
 - b. Yes, if a modified AMI meter is deployed instead of a digital meter without any communication capability.
2. Paragraph 8 states the AMI project will potentially include some non-residential meters not currently equipped with remote telemetry. Please explain which customers may receive these meters and why.

RESPONSE:

The non-residential meters that are not currently read remotely will receive an AMI as part of the AMI program in order to provide additional benefits to customers and business efficiency.

3. Referring to paragraph 9, please provide any and all support for the 0.15 percent estimate of customers that will choose to opt out.

RESPONSE:

Florida Power & Light ("FPL") reported its NSMR tariff enrollment in the Smart Meter Progress Report filed on April 4, 2018. Duke Energy Florida notes that FPL had 5,966 customers enrolled in its own NSMR tariff as of December 31, 2017. That represents a 0.12% participation rate when divided by the 4.9 million customers in its service territory. Duke Energy Florida rounded up to a 0.15% participation rate, with the understanding that FPL originally forecasted a 0.26% participation rate when developing its NSMR costs, as discussed in the Florida Public Service Commission's Final Order issued on January 7, 2015 approving FPL's Non-Standard Meter Rider.

4. Has DEF considered the effects that a much higher or lower participation rate via the NSMR tariff would have? Please explain.

RESPONSE:

Yes. Adjusting the expected participation rate higher spreads the costs of the IT system changes over more customers, and thereby results in a lower monthly cost per customer. Adjusting the expected participation rate lower has the opposite effect. The one-time costs and the meter reading component of the monthly costs are not affected by using a higher or lower participation rate.

5. Referring to paragraph 12, when will DEF communicate to customers the logistics and deployment of the AMI meters and help them understand the benefits of the meter technology? If you have any communication materials currently available, please provide them.

RESPONSE:

DEF plans to communicate with customers during the AMI deployment as depicted in the attached draft outline “DEF AMI –Vendor Collateral Slide Updated_5-01-18_DRAFT.” Two weeks prior to a meter exchange, DEF will mail a postcard to the customer informing them of the meter exchange and benefits of the new meter. A DRAFT version of the post card communication is attached as “DEF AMI postcard-EXAMPLE DRAFT-2018.” After the attempted meter exchange, the Company will attach a door hanger depending on whether the attempt was successful or unsuccessful. DRAFT versions of the door hangers are attached as “DEF Door Hanger Successful DRAFT” and “DEF Door Hanger Unsuccessful DRAFT.” Once the meter is installed and ready for remote billing, DEF will send a certification brochure. The attached documents responsive to this request bear bates numbers 20180088-DEF-STAFF DR1-000001 through 20180088-DEF-STAFF DR1-000007.

6. How will DEF let customers know they can opt-out?

RESPONSE:

As part of the communication discussed in response to Question 5, there will be a toll free number for customers to call with questions regarding meter exchange and to opt-out. There will also be information about the AMI deployment and AMI opt-out located on the DEF website.

7. Paragraph 8 states that the AMI project will begin in November 2018 and paragraph 12 states DEF expects its systems to be ready for enrollment and billing in December 2018. Will there be an overlap where some customers may be given an AMI meter before they have the opportunity to opt-out?

RESPONSE:

No, the Company will not install an AMI meter for any customer who indicates that they are planning to opt out between when the AMI deployment begins in November 2018 and the opt-out program is ready for enrollment and billing in December 2018.

8. Will the NSMR Rider charges apply in addition to the residential RS-1 rates for customers who chose to opt out? If yes, please explain whether DEF's current RS-1 base rates recover any of the incremental costs associated with the NSMR Rider.

RESPONSE:

Yes, the NSMR Rider charges apply in addition to the residential RS-1 rates for customers who chose to opt out. All of the incremental costs associated with the NSMR Rider are associated with incremental work required to serve customers participating in the optional AMI opt-out service provided through the NSMR Rider, and are not recovered through DEF's current RS-1 base rates.

For the following questions, please refer to Exhibit A of the petition.

9. Please provide the Excel spreadsheet shown in Exhibit A with the formulas intact and unlocked.

RESPONSE:

Please see the attached spreadsheet "DEF NSMR Cost Analysis." Portions of the spreadsheet are confidential. A redacted version has been attached hereto and unredacted copies have been filed with the Florida Public Service Commission ("Commission") along with DEF's Notice of Intent to Request Confidential Classification dated May 3, 2018. The attached documents responsive to this request bear bates numbers 20180088-DEF-STAFF DR1-000008 through 20180088-DEF-STAFF DR1-000014.

10. For lines 1-6 for the section titled Expenses (One-Time per Participant), please provide cost support for each amount shown and state whether the Metering Services technician is a new position created in anticipation of this tariff.

RESPONSE:

Please see the attachment provided in response to question 9. Lines 1-6 are calculated by multiplying the time to complete by the total hourly rate of the job performer from the tab titled "CONFIDENTIAL Labor Rates." The "Field Meter Tech" is an existing position in the Metering Services department. A redacted version has been attached hereto and unredacted

copies have been filed with the Florida Public Service Commission (“Commission”) along with DEF’s Notice of Intent to Request Confidential Classification dated May 3, 2018.

11. For the second section titled Development of Monthly Rates, please explain the calculations shown. The annual revenue shown is not exactly the product of the monthly rate * 12 months * number of participants.

RESPONSE:

Please see the attachment provided in response to question 9. The values in Row 1 of the Monthly Rate per meter are rounded to the nearest cent, the values in Row 2 of the “Current Participants” are rounded to the nearest whole number, and the values in Row 3 of the “Annual Revenue” are rounded to the nearest dollar. The calculations shown in the attachment provided in response to question 9 used the actual, non-rounded values in Rows 1 and 2 to arrive at the total annual revenue figures.

12. Please explain why, for 2018, an annual revenue was developed since DEF requested the tariff go into effect in December 2018 (for 1/12th of a year).

RESPONSE:

The Company used 12 months for simplicity and consistency of the calculation for each year. If the calculation for 2018 is revised to only include one month of fees, the \$15.60 monthly fee would not result in a \$0 NPV in Cell E35 of the “5 Year Cash Flow” tab. To reach a \$0 NPV using only one month of revenue in 2018 would require that DEF increase the monthly fee to \$15.64.

13. For the last section titled Expenses Recovered via Monthly Rate, please state and explain the calculation of the monthly meter reading cost.

RESPONSE:

Please see the attachment provided in response to question 9. The calculation of the monthly meter reading cost is shown on the tab titled “Metering Services – Ongoing.”

14. Please provide cost support for the Customer IT System Change (\$374,014).

RESPONSE:

Please see the attached spreadsheet “322265 CSS MDM – Opt Out 2 – Class 4 Estimator 2018-03-15.” The attached documents responsive to this request bear bates numbers 20180088-DEF-STAFF DR1-000015 through 20180088-DEF-STAFF DR1-000018.

15. Please explain why DEF is showing revenues that exceed expenses, resulting in a positive net income as shown in line 4 of the Expenses Recovered via Monthly Rate. If the NSMR tariff is designed to cover incremental cost to accommodate opt-out customers, please explain why revenues and expenses are not set equal.

RESPONSE:

Please see the attachment provided in response to question 9. The revenues and expenses are set equal on an NPV basis as shown in Row 7 of the “Expenses Recovered via Monthly Rate (Initial Development plus On-going)” section of the tab titled “5 Year Cash Flow.” Row 7 factors in the income impact of taxes and the weighted average cost of capital, because the Company will incur the IT system costs before offering the opt-out program.

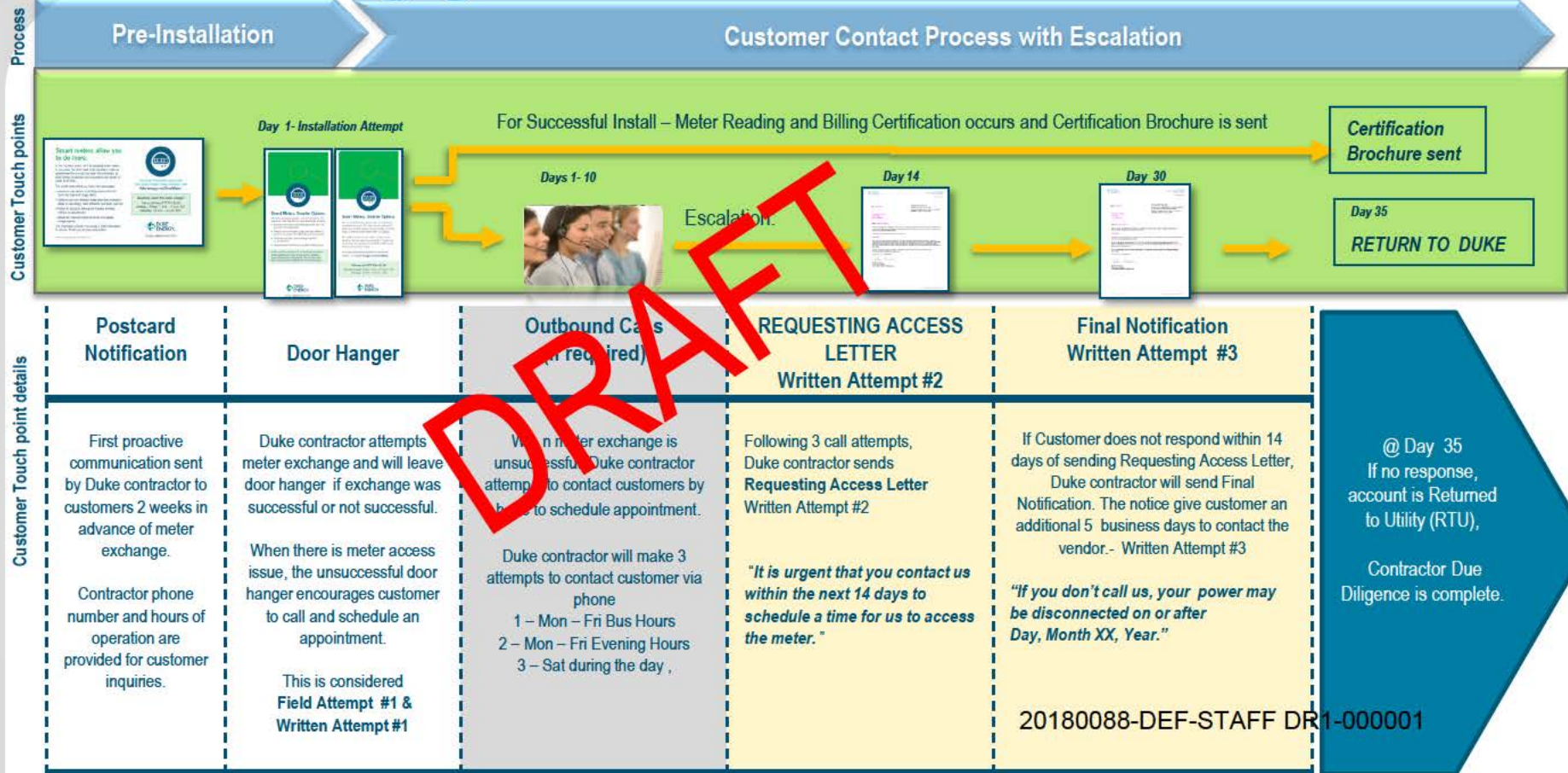
16. Please explain and show the derivation of the 25.345 percent tax rate. Does that take into account the changes under the Tax Cuts and Jobs Act of 2017?

RESPONSE:

Yes, it takes into account the recent tax changes. 21% is the federal tax rate, 5.5% is the state tax rate. To derive the 25.345 rate, the Company used 21% minus (21% times 5.5%) plus 5.5% equals 25.345%. That calculation takes into account the changes under the Tax Cuts and Jobs Act of 2017, as reflected in the 21% federal tax rate.

DEF AMI DEPLOYMENT – Contractor Led Customer Engagement Process

Duke Energy Florida
Docket No. 20180088
DEF's Response to Staff DR1
Q5





Duke Energy Florida
Docket No. 20180088
DEF's Response to Staff DR1
Q5

PRESORT
FIRST-CLASS MAIL
U.S. POSTAGE
PAID
CITY, ST
PERMIT NO. XXX

Duke Energy
299 1st Avenue N
St. Petersburg, FL 33701



Smart Meters. Smarter Options.

We will be upgrading the meter at: <Premise Address>

<Owner1>
<Address1>
<City, State Zip>

duke-energy.com/SmartMeter

20180088-DEF-STAFF DR1-000002

Smart meters allow you to do more.

In the next few weeks, we'll be installing smart meters in your area. You don't need to be present or make an appointment for us to do our work. As a reminder, all Duke Energy employees and contractors carry photo ID cards at all times.

The smart meter offers you many new advantages:

- Access to new service and billing options like Pick Your Due Date and Usage Alerts.
- Ability to see your detailed usage data daily, making it easier to use energy more efficiently and lower your bill.
- Option to stop/start service can happen remotely, without an appointment.
- Allows for improved response times and speeds outage repairs.

The installation process may cause a brief interruption in service. Thank you for your cooperation.

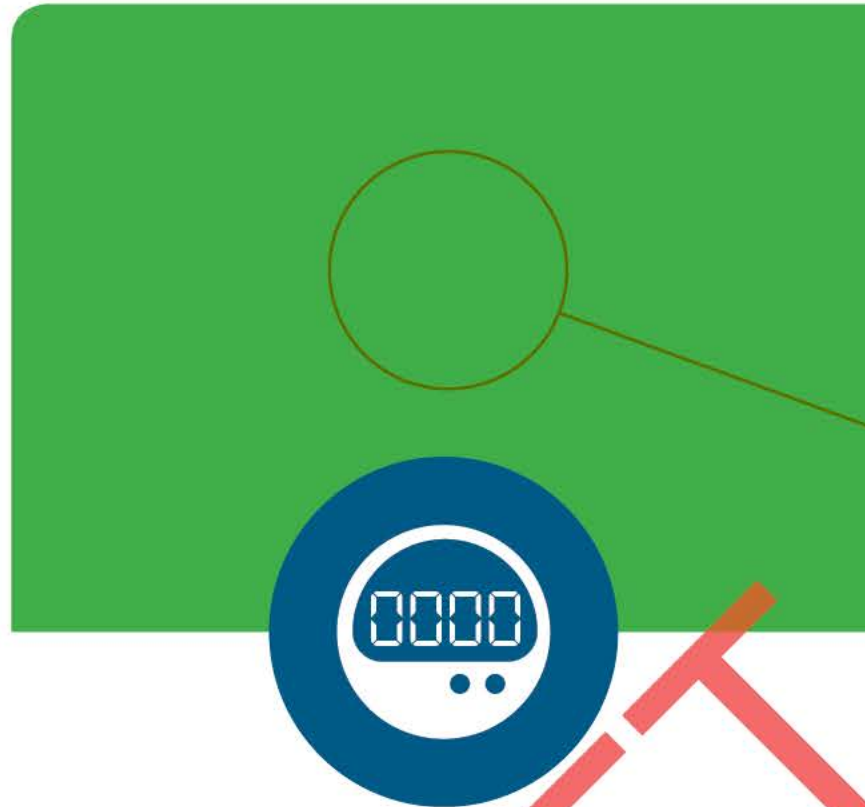


For more information about the new smart meters being installed, visit duke-energy.com/SmartMeter

Questions about this meter change?

Call us toll-free 800.700.8744
Monday – Friday: 7 a.m. – 8 p.m. EST
Saturday: 7 a.m. – 5 p.m. EST





Smart Meters. Smarter Options.

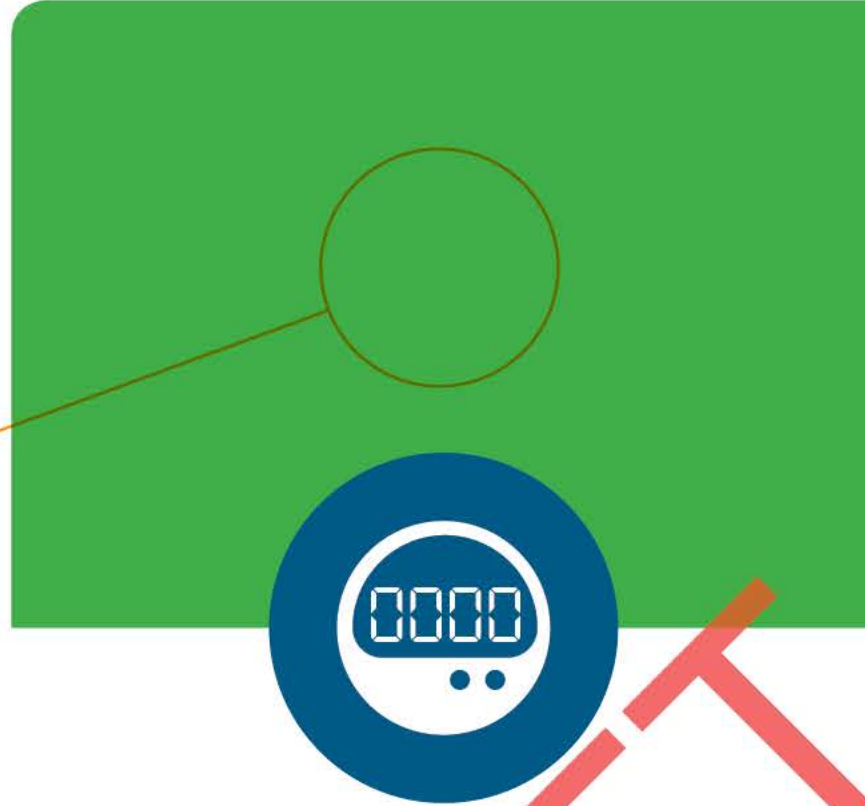
We have successfully installed a new smart meter(s). The new smart meter will offer you many advantages, including:

- Access to new service and billing options like Pick Your Due Date and Usage Alerts
- Ability to see your detailed usage data daily, making it easier to use energy more efficiently and lower your bill
- Option to stop/start service remotely, without an appointment
- Improved response times and speedier outage repairs

In the next few weeks you'll be receiving a brochure about additional benefits and programs available to you through the smart meter. You can also visit duke-energy.com/SmartMeter for more information.



BUILDING A SMARTER ENERGY FUTURE™



Medidores inteligentes. Opciones más inteligentes.

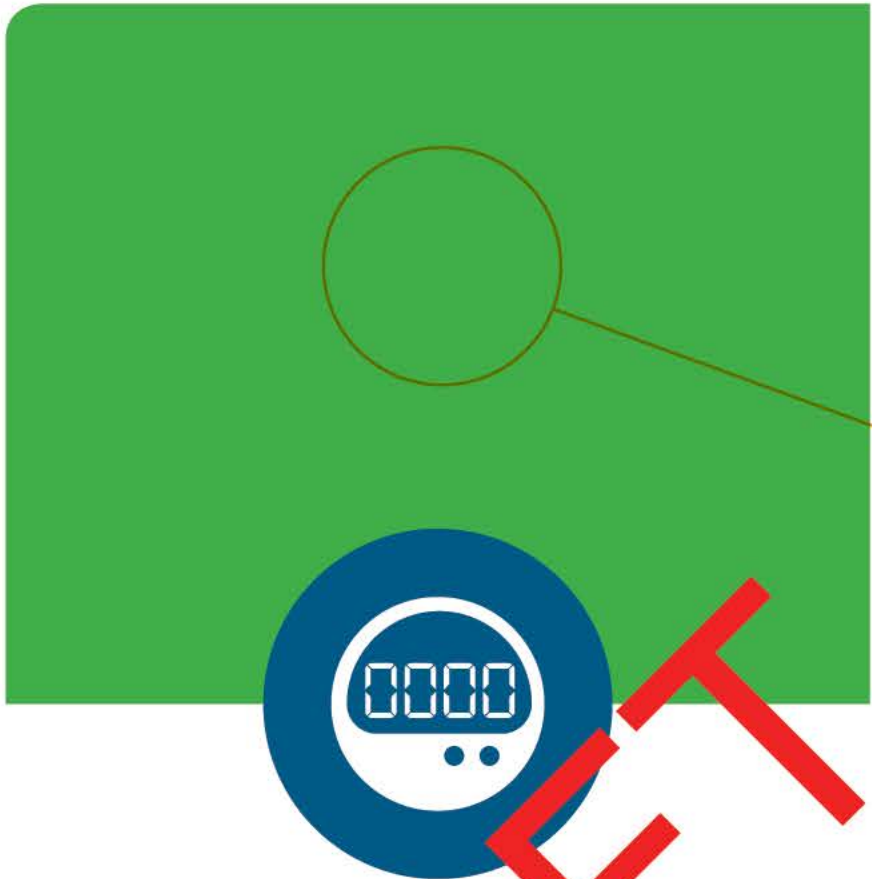
Hemos logrado instalar con éxito un nuevo medidor(es) inteligente. El nuevo medidor inteligente le ofrecerá muchas ventajas, entre ellas:

- Acceso a nuevas opciones de servicio y facturación, como: elegir la fecha de pago de su cuenta y recibir mensajes de alerta sobre el consumo.
- Capacidad de ver su consumo de energía en detalle diariamente, lo que permite usar la energía eficientemente y reducir la cuenta de luz.
- Tener la opción de suspender/iniciar el servicio remotamente, sin hacer una cita.
- Mejoramiento en tiempos de respuesta y reparaciones de servicio más rápidas.

En las próximas semanas recibirá un folleto relacionado con los beneficios adicionales y los programas disponibles a través del medidor inteligente. También puede visitar: duke-energy.com/SmartMeter para obtener mayor información.



BUILDING A SMARTER ENERGY FUTURE™



Smart Meters Smarter Options.

We are upgrading the power grid and systems to better serve you. Our new smart meters will allow you to take control of your energy use and help us restore power faster after an outage.

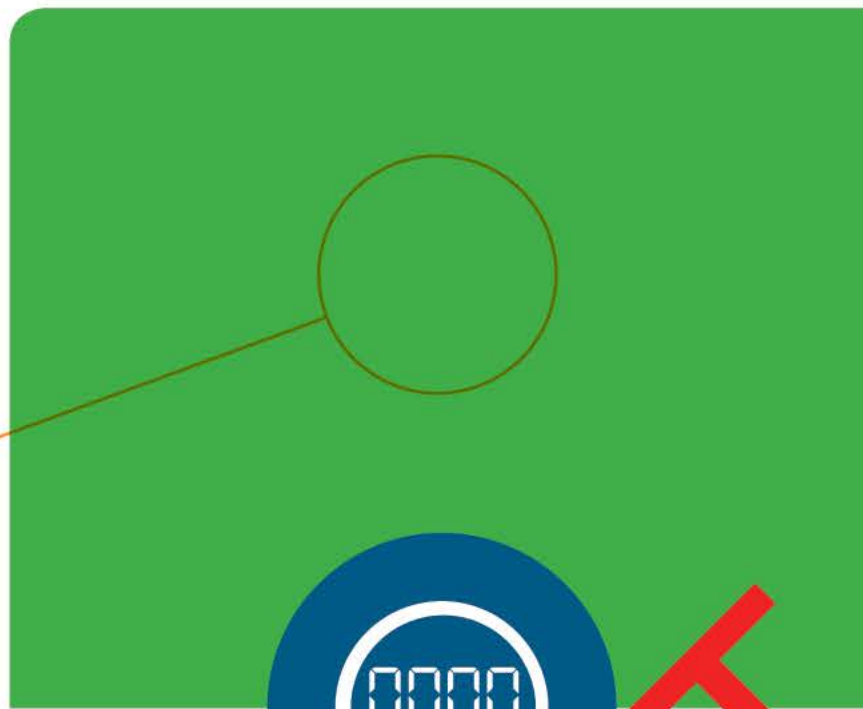
We tried to install a new smart meter at your location, but we were unsuccessful. Please call us as soon as possible to schedule a time when we can access your meter.

For more information about the new smart meters, visit duke-energy.com/SmartMeter

Please call ###.###.####
Monday through Friday: 7 a.m. to 7 p.m. EST
Saturday: 10 a.m. to 2 p.m. EST



BUILDING A SMARTER ENERGY FUTURE™



Medidores inteligentes. Opciones más inteligentes.

Estamos actualizando la red de energía y los sistemas para brindarle un mejor servicio. Nuestros nuevos medidores inteligentes le permitirán tener control de su consumo en el momento y nos ayudarán a restablecer más rápidamente el servicio después de un corte de luz.

Hemos intentado instalar el nuevo medidor inteligente en su ubicación, pero no lo logramos. Por favor llámenos lo antes posible para programar el día y la hora en que podemos tener acceso a su medidor.

Para obtener más información acerca de los nuevos medidores inteligentes, visite: duke-energy.com/SmartMeter

Por favor llame al ###.###.####

de lunes a viernes de 7 a.m. a 7 p.m., hora del Este.
Sábado: de 10 a.m. a 2 p.m., hora del Este.



BUILDING A SMARTER ENERGY FUTURESM

5 Year Cash Flow

DEF

Duke Energy Florida - Non-Standard Meter Rider (NSMR) Cost Analysis

	2018	2019	2020	2021	2022	
Expenses (One-Time per Participant)						
<u>One-time Costs to Establish NSMR</u>						
1	Customer Service @ 3 mins/customer	\$0.00				Customer Care Specialist will take calls for opt-out participants, explain tariff details, and set up account.
2	Metering Services work order mgmt @ 5 mins/customer	\$0.00				Work Force Mgmt Spec II to create initial work orders for meter programming, meter exchange and manual read routing.
3	Metering Services technician to program and label meter @ 30 mins/customer	\$0.00				Field Meter Tech to program the opt-out meter and apply opt-out label to help ensure an opt-out meter is not replaced with a communicating AMI meter.
4	Metering Services technician to exchange meter @ 45 mins/customer	\$0.00				Field Meter Tech to travel to customer premise, remove existing meter and replace with opt-out meter, close work orders.
5	Vehicle to exchange meter @ 45 mins/customer	\$4.61				Vehicle > 8500 used by "Field Metering" travel for meter exchange.
6	Manual meter reading route analysis @ 20 mins/customer	\$0.00				Meter Route Analyst to determine location of opt-out participant and find existing manual reading route to adjust for efficient meter reading route.
	Total One-Time Charge	\$4.61				Sum of rows (1) through (6)
Development of Monthly Rates						
Current Rates						
1	Monthly Rate per meter	\$15.60	\$15.60	\$15.60	\$15.60	\$15.60 Monthly rate to capture meter reading expenses and 100% of IT System Costs at NPV=0
Current Participants						
2	NSMR	18	1,201	2,461	2,710	2,710 Estimated cumulative number of NSMR Customers
Annual Revenue						
3	NSMR	\$3,300	\$224,886	\$460,796	\$507,416	\$507,416 (12 months) * (# of participants) * (Monthly Rate)
	Total Annual Revenue	\$3,300	\$224,886	\$460,796	\$507,416	\$507,416
Expenses Recovered via Monthly Rate (Initial Development plus On-going)						
<u>On-Going Monthly Cost to Support NSMR</u>						
1	Monthly Meter Readings * 12 * # of NSMR Customers	\$300	\$20,467	\$41,938	\$46,181	\$46,181 Total Monthly meter reading costs * 12 months * # of participants
2	Customer IT System Change to provide NSMR tariff (100%)	\$374,014	\$0	\$0	\$0	\$0 IT Cost for System Implementation (100% of total)
3	Total Expenses (2018-2022, including IT System Change)	\$374,014	\$300	\$20,467	\$41,938	\$46,181
4	Net Income	(\$374,014)	\$3,000	\$204,419	\$418,858	\$461,236 Total Revenue minus Total Expenses
5	Taxes @ 25.345%	(\$94,794)	\$760	\$51,810	\$106,160	\$116,900 Net Income times 25.345%
6	After Tax Income	(\$279,220)	\$2,239	\$152,609	\$312,699	\$344,335 Net Income - Taxes
7	5-Year Net Present Value @ 8.15% WACC		\$540,867.44			
	Target Rate to Achieve \$0 NPV:		\$15.60	Total Monthly Charge per Participant		

DUKE ENERGY FLORIDA
End of Period - Capital Structure
FPSC Adjusted Basis
Dec 2017

	System Per	Retail Per	Pro Rata	Specific	Adjusted	Cap	Low-Point		Mid-Point		High-Point	
	Books	Books	Adjustments	Adjustments	Retail	Ratio	Cost Rate	Weighted Cost	Cost Rate	Weighted Cost	Cost Rate	Weighted Cost
Common Equity	\$5,610,942,847	\$5,012,340,583	(\$646,715,590)	\$656,931,278	\$5,022,556,271	44.29%	9.50%	4.21%	10.50%	4.65%	11.50%	5.09%
Long Term Debt	5,735,269,482	5,123,403,457	(661,045,441)		4,462,358,016	39.35%	4.80%	1.89%	4.80%	1.89%	4.80%	1.89%
Short Term Debt *	(313,046,865)	(279,649,526)	36,081,688	108,874,057	(134,693,781)	(1.19%)	0.58%	(0.01%)	0.58%	(0.01%)	0.58%	(0.01%)
Customer Deposits												
Active	200,073,978	200,073,978	(25,814,479)		174,259,499	1.54%	2.33%	0.04%	2.33%	0.04%	2.33%	0.04%
Inactive	1,871,004	1,871,004	(241,406)		1,629,598	0.01%						
Investment Tax Credits **	9,341,260	8,344,689	(1,076,671)		7,268,018	0.06%	7.82%	0.01%	7.82%	0.01%	7.82%	0.01%
Deferred Income Taxes	2,710,789,538	2,421,589,523	(312,444,789)	(303,605,704)	1,805,539,029	15.92%						
Total	\$13,955,241,244	\$12,487,973,708	(\$1,611,256,688)	\$462,199,631	\$11,338,916,651	100.00%		6.13%		6.57%		7.02%
* Daily Weighted Average ** Cost Rates Calculated Per IRS Ruling												

Metering Services - Ongoing

DEF

2,710 : Estimated # NSMR Customers

Topic Area	Topic Details	Rate	Hours to Complete	Unit Cost	Frequency	# of Events Annually	Annual Cost	Assumptions/Questions
Monthly Meter Reading	Manual meter reads each month includes average travel time between NSMR customers and time to exit vehicle, locate meter, probe meter, and return to vehicle.	\$ -	0.33	\$ -	Monthly per NSMR Customer	32,522	\$ -	Blended hourly rate for work performed by job titles Meter Data Collector (70%) and Meter Reader (30%).
Monthly Meter Reading - Vehicle	Meter Reading employee vehicle costs for duration of monthly meter reading throughout the route, per customer	\$ 4.21	0.33	\$ 1.40	Monthly per NSMR Customer	32,522	\$ 45,639.26	Assumes employee uses Pickup 1/4 Ton 4x2
Off-cycle Meter Reading	Manual off-cycle meter reads. Necessary due to inability to perform Remote Order Fulfillment services for non-standard meters (bill complaints, move in/move out, re-reads)	\$ -	0.75	\$ -	Annually for 5% of NSMR Customers	136	\$ -	Assumes 5% of NSMR customers have off-cycle reads/year.
Off-cycle Meter Reading - Vehicle	Meter Reading employee vehicle costs for duration of off-cycle meter reading	\$ 4.21	0.75	\$ 3.16	Annually for 5% of NSMR Customers	136	\$ 427.87	Assumes employee uses Pickup 1/4 Ton 4x2
							\$ 46,067.13	Annual Total
							\$3,838.93	Total Monthly costs
							\$1.42	Costs per NSMR Customer per Month

IT System Costs

DEF

2,710 : Estimated # NSMR Customers

Topic Area	Topic Details	Total Cost	Assumptions/Questions
IT Resource Costs	IT costs to update Customer System (CSS) with account flags for non-communicating meter, work order tracking, and billing/bill annotation functionalities.	\$ 303,712.50	Based on blended rate of internal/external resources. Includes standard active project contingency for hours to complete.
Business Project Resource Costs	Business project team costs (subject matter experts for billing, accounts receivable, call center, metering services) to change processes to account for non-communicating meters, develop system requirements, test IT system functionality.	\$ 70,301.00	Based on blended rate of internal/external resources. Includes standard active project contingency for hours to complete.
		\$ 374,014.00	Total IT System Costs

Estimated NSMR Participants

DEF

Estimated NSMR	Customer Counts	0.15%
DEF	1,806,750	2,710

	2018	2019	2020	2021	2022
AMI Meters Installed	11,750	789,000	840,000	166,000	-
Cumulative Total AMI	11,750	800,750	1,640,750	1,806,750	1,806,750

Labor Rates

DEF REDACTED

	Customer Care Specialist	Work Force Mgmt Spec II	Field Meter Tech (Union)	Meter Route Analyst	Meter Data Collector (Union)	Meter Reader (Union)
Annual Job Value						
Hours Per Year						
Hourly Rate						
<u>Burdens</u>						
Payroll Tax						
Loader Rate (Pension & Benefits)						
Incentives						
Total Burden Rate						
Total Hourly						

Monthly Average Fleet Charges

DEF

Based on 2017 data

	Average of Ownership \$	Average of Labor \$	Average of Parts \$	Average of Fuel \$	Average of Comm \$	Average of Other	Average of Total Charges	Monthly Avg Hourly Rate
Van > 8500	466.98	155.98	61.54	351.61	28.08	1.24	1,065.43	6.15
Pickup 1/4 Ton 4x2	268.59	143.60	70.66	198.49	48.01	0.39	729.73	4.21

Class 4 Estimate Generator Guide

To Generate a Class 4 Estimate

1. Select Input Tab and Enter required Input
2. Select Estimate Tab and view generated Estimate

Input Tab

Enter generator input in each of the grey fields (see below for description of input)

Development Effort	
Length of Build Stage (in Weeks)	Enter # of weeks the build stage of the project is expected to take to complete
Number of Resources Needed to Complete Build	Enter # of resources needed to complete build stage in estimate weeks (from above)
Below Testing Inputs are used mainly by App Dev projects only	
Is there a standard set of manual regression test scripts, if so what is the quality?	Select "None, Low, Medium or High" - "High" has the greatest amount of test script details
Are there existing automated product test scripts that will be leveraged?	Select "Yes" if automated product test scripts exist
If an automated test script exists, how much of the application does it cover?	Enter the percentage of functionality/test cases that are currently automated
How much of the product testing should be automated with this effort?	Desired percentage of functionality that this project will automate (<i>generally not to exceed 70%</i>)
Project Scope / Complexity	
Project Complexity (See business case for determination)	Project Complexity is a component of the project rank and can be determined via the Initiate Business Case
Change Management/Training	Select "Yes" if Change Management and/or Training will be included in project scope, "No" if not in scope
Resource	
% of Resources that are External?	Enter what percentage of resources will be staffed from non-Duke employees
Number of Project Member Locations	Enter how many locations will project members be located?
Travel - Estimated Number of Trips (Bus & IT)	Enter number of travel tips required for project team members to take (Estimated \$900 per trip)
Business Support Average # FTE (for duration)	Enter average number of business resources (by FTE) needed for the project
Overall Project	
Duration of Project (in Weeks)	Enter total number of weeks in duration the project is expected to take
What Percentage of Project is Capital?	Enter what percentage of the total project will be allocated to capital dollars
Estimate Hardware Costs	Enter the estimated cost of additional hardware to be procured for the project
Estimated Software Licensing Costs	Enter the estimated cost of additional software licenses required for project
Resource Hourly Rate	
Internal IT Rate	Default \$70/hour
External IT Blended Rate	Determine a blended rate for external IT resources - Default \$100/hour if better estimate not known
Business Blended Rate	Determine a blended rate for business resources - Default \$70/hour if better estimate not known
Travel Expenses	
Total Dollars Per Person Per Trip	Enter the total cost of 1 person trip for the project - Default \$900/trip
Technical Environment Complexity	
None	Infrastructure effort, or effort which requires no environments / support
Low	Environments already exist for this effort, low customization/integration, simple deployment
Medium	Some new environments needed, medium customization/integration, limited specialty environments (Conversion, Performance, Mock, etc.)
High	Mostly new environments, high customization/integration, multiple specialty environments (Conversion, Performance, Mock, etc.)

Estimate Tab

Hours for Build

Build Stage hours will be calculated by Number of Weeks * Number of Resources (Development + Business Resources) * 38.5 hours per week

Total Build Stage Hours will be adjusted based on the following factors:

Change Management:

+5% if "Yes"

Complexity:

-5% if Complexity = Low

+0% if Complexity = Moderate

-8% if Complexity = N High

+15% if Complexity = Extreme

Number of Locations:

+5% if Locations > 2

Test (Automated and Product)

Test Stage hours will be calculated by 30% of (Analysis+Design+Build) + Test Automation

Total Hours by Stage

Hours by stage is generated by utilizing standard stage percentage of total project. The percentage by stage can be adjusted if project is expected to have modified stage configuration

Contingency at Initiate

Hours will be added based on a percentage of

Low Complexity - 10% of total project cost

Moderate Complexity - 15% of total project cost

High Complexity - 20% of total project cost

Extreme Complexity - 25% of total project cost

Total IT Estimate

IT Estimate in hours is calculated by adding contingency hours to total hours by stage

Project Cost

IT Effort Estimate is generated by multiplying total hours * internal IT rate/hour for employees & contractor IT rate/hour for external resources

Business Estimate is generated by multiplying business FTEs by number of weeks and 38.5 hours per week and by business blended rate/hour

Project Cost Detail

Total Project Cost is divided among O&M and Capital based on the percentage input

O&M Uptick

Please Note this Estimator does NOT include line items for ongoing O&M uptick due to the delivery of the project. Ongoing O&M uptick still needs to be calculated and added to the appropriate line items in the IT Business Case form.

Class 4 Estimate Input	
Development Effort	
Length of Build Stage (in Weeks)	6
Number of IT FTEs During Build Stage (excluding PM/Env)	3
Is there a standard set of manual regression test scripts, if so what is the quality? *2	None
Are there existing automated product test scripts that will be leveraged? *2	No
If an automated test script exists, how much of the product does it cover? *2	0%
How much of the product testing should be automated with this effort? *2	0%
Project Scope / Complexity	
Project Complexity (See business case for determination)	Low
Change Enablement/Training	Yes
Resource	
% of Resources that are External?	50%
Number of Project Member Locations	1
Travel - Estimated Number of Person Trips (Bus & IT)	0
Business Effort (# of FTE)	2
Overall Project	
Duration of Project (in Weeks)	11
What Percentage of Project is Capital?	0%
Estimate Hardware Costs	\$0.00
Estimated Software Licensing Costs	\$0.00
Technical Environment Complexity *2	Moderate

Estimating Factors - Default Values	
Resource Hourly Rate	
Internal IT Rate	\$75
External IT Blended Rate	\$100
Business Blended Rate	\$83
Travel Expenses	
Total Dollars Per Person Per Trip	\$900
Change Enablement	
Change Enablement Add on Factor	5%
IT Product Testing (calutated)	
Actual Test Automation Percentage	0.0%
Manual Testing Add on Factor	30.0%
Automation Testing Add on Factor	0.0%

****NOTES****

Estimator does NOT include line items for ongoing O&M uptick due to the delivery of the project. Ongoing O&M uptick still needs to be calculated and added to the appropriate line items in the IT Business Case form.

*2 - Inputs typically used for Application Development Projects only (leave values as None or 0% for Infrastructure project efforts)

Generated Class 4 Estimate

******NOTES******

Estimator does NOT include line items for ongoing O&M uptick due to the delivery of the project. Ongoing O&M uptick still needs to be calculated and added to the appropriate line items in the IT Business Case form.

IT Hours by Stage		
Stage	Percent of Project (IT)	IT Hours by Stage
Project Management	N/A	106
Technical Arch & Operations *2	N/A	289
Plan	5.00%	142
Analyze	15.00%	426
Design	20.00%	568
Build	30.00%	693
Test *2 (Automation/Product Test)	N/A	450
Test (Defect Support)	17.00%	483
Deploy (Includes SI)	8.00%	252
Warranty	3.00%	85
Close	2.00%	57
Project Total		3155
Contingency (see Guide for %)		316
Total IT Hours		3471

*2 -Estimates are typically only for Application Development Projects and will typically be 0 hours for infrastructure only efforts

Project Cost	
IT Effort Estimate	\$303,712.50
Business Estimate	\$70,301.00
Travel Estimate	\$0.00
Hardware & Software Costs	\$0.00
Total Project Estimate	\$374,014.00

Project Cost Detail (O&M Uptick not Included)	
IT O&M	\$303,712.50
IT Capital	\$0.00
Business O&M	\$70,301.0
Business Capital	\$0.00

Project Cost Detail (O&M Uptick not Included)	
IT O&M - Internal Labor	\$130,162.50
IT O&M - External Labor	\$173,550.00
IT Capital - Internal Labor	\$0.00
IT Capital - External Labor	\$0.00
Bus O&M - Internal Labor	\$35,150.50
Bus O&M - External Labor	\$35,150.50
Bus Capital - Internal Labor	\$0.00
Bus Capital - External Labor	\$0.00