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May 3, 2019

Via Electronic Filing Clerk
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

RE: FPL 2019 Load Research Sampling Plan Filing

Dear Mr. Teitzman:

Enclosed is FPL's 2019 Load Research Sampling Plan for informational purposes of the sample deployments for the year 2019.

If you have any questions or require additional information about this filing, please call Tara Bachkosky at (561) 691-2391 or me at (561) 694-4184.

Sincerely,

/s/ Tiffany Cohen
Tiffany Cohen
Director, Rates and Tariffs

CC: Elisabeth Draper, Chief, Division of Economics (via electronic mail)

TABLE 1

PROPOSED GSD(T) SAMPLE DESIGN

Rate Classes : GSD-1, GSDT-1, HLFT-1 & SDTR-1 (Rate Codes 70, 72, 170, 270 & 370)
Installation Year : 2019
Sample Design : One Dimensional Stratified Random Sample - Combined Ratio Estimation, Dalenius-Hodges Procedure, Neyman Allocation, With Finite Population Correction
Design Precision(P) : 10%
Design Confidence : 90% (1.645)
Stratification Variable : Annual Monthly Mean Energy (kWh)

[1]	[2]	[3]	[4]	[4]x[5]	[3]x[4]	[4]x([3]^2)	[6]	[7]
Strata	Sample Size	SDRh	Wh	Nh	Wh(SDRh)	Wh(SDRh)^2	Neyman Alloc. of n with losses (nh)	Proposed Sample
1	239	8.818	0.68778	72,899	6.065	53.479	124.238	125
2	228	26.418	0.24436	25,901	6.456	170.545	132.244	133
3	80	44.195	0.06786	7,193	2.999	132.542	61.435	62
Sum(Σ)	547		1.00000	105,992	15.519	356.566	317.918	320
Combined		24.630		[5]				

CALCULATIONS	
YBAR =	26.1237
$n = (\sum Wh * SDRh)^2 / ((P * YBAR / Z)^2 + (\sum Wh (SDRh)^2 / \sum Nh))$	
=	95.375
$n(\text{with losses}) = n / 0.3 =$	317.918

NOTES:

A) The most current load research data available was obtained from LodeStar (FPL's Load Research System) for the period January 2016 through December 2018.

B) The above calculations were performed for every month of 2016, 2017 and 2018. January 2018 load research data produced the largest sample size requirement and was therefore selected.

C) The strata break points and weights were defined on the basis of average monthly energy consumption (kWh) for 2018.

DEFINITIONS:

[1] Strata Break Points (kWh)
 Strata 1 = 0 - 16,640
 Strata 2 = 16,641 - 66,560
 Strata 3 = 66,561 & Above

[2] Number of valid sample points in LodeStar for the month of January 2018 (Refer to Note B)

[3] Standard deviation for the month of January 2018 coincident peak, per LodeStar (Refer to Note B)

[4] Percent of customers per strata for the summer and winter peak months from FPL's Customer Information System (Refer to Note C)

[5] Total number of customers for the month of January 2018 from FPL's Customer Information System (Refer to Note B)

[6] $nh = Wh(SDRh) / \sum Wh(SDRh)$

[7] Based on Neyman Allocation of n with losses. Minimum strata size = 30, via central limit theorem.

TABLE 2

PROPOSED GSLD(T)-1 SAMPLE DESIGN

Rate Classes : GSLD-1, GSLDT-1, CS-1, CST-1, HLFT-2 & SDTR-2 (Rate Codes 62, 64, 73, 74, 164, 264 & 364)
Deployment Year : 2019
Sample Design : One Dimensional Stratified Random Sample - Combined Ratio Estimation, Dalenius-Hodges Procedure, Neyman Allocation, With Finite Population Correction
Design Precision(P) : 10%
Design Confidence : 90% (1.645)
Stratification Variable : Annual Monthly Mean Energy (kWh)

[1]	[2]	[3]	[4]	[4]x[5]	[3]x[4]	[4]x([3]^2)	[6]	[7]
Strata	Sample Size	SDRh	Wh	Nh	Wh(SDRh)	Wh(SDRh)^2	Neyman Alloc. of n with losses (nh)	Proposed Sample
1	71	126.487	0.60165	1,720	76.101	9625.764	59.406	60
2	50	155.975	0.39835	1,138	62.133	9691.155	48.502	49
Sum(Σ)	121		1.00000	2,858	138.234	19316.919	107.907	109
Combined		138.805		[5]				

CALCULATIONS	
YBAR =	397.3674
$n = (\sum Wh * SDRh)^2 / ((P * YBAR / Z)^2 + (\sum Wh (SDRh)^2 / \sum Nh))$	
=	32.372
$n(\text{with losses}) = n / 0.3 =$	107.907

DEFINITIONS:

[1] Strata Break Points (kWh)
Strata 1 = 0 - 296,400
Strata 2 = 296,401 & Above

[2] Number of valid sample points in LodeStar for the month of January 2018 (Refer to Note B)

[3] Standard deviation for the month of January 2018 coincident peak, per LodeStar (Refer to Note B)

[4] Percent of customers per strata for the summer and winter peak months from FPL's Customer Information System (Refer to Note C)

[5] Total number of customers for the month of January 2018 from FPL's Customer Information System (Refer to Note B)

[6] $nh = Wh(SDRh) / \sum Wh(SDRh)$

[7] Based on Neyman Allocation of n with losses. Minimum strata size = 30, via central limit theorem

NOTES:

A) The most current load research data available was obtained from LodeStar (FPL's Load Research System) for the period January 2016 to December 2018.

B) The above calculations were performed for every month of 2016, 2017 and 2018. January 2018 load research data produced the largest sample size requirement and was therefore selected.

C) The strata break points and weights were defined on the basis of average monthly energy consumption (kWh) for 2018.