

State of Florida



Public Service Commission

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RECEIVED - FPSC
12 SEP 28 AM 11:42
COMMISSION
CLERK

DATE: September 28, 2012
TO: Ann Cole, Commission Clerk, Office of Commission Clerk
FROM: Lawrence D. Harris Jr., Senior Attorney, Office of the General Counsel
RE: Documents to File in Docket No. 120172-TP
Country Club Utilities SARC

Attached please find printed copies of email correspondence and attached documents I received from Mr. Christopher Pettit, with the South West Florida Water Management District, relating to Country Club Utilities, Inc., which is currently involved in a Staff Assisted Rate Case proceeding, Docket No. 120172-TP. Please file the attached documents in the docket file. Thank you for your assistance in this matter.

CC: Mr. Greg Harris
Avy Smith
Stan Rieger

DOCUMENT NUMBER-DATE

06512 SEP 28 2012

FPSC-COMMISSION CLERK

Larry Harris

From: Christopher Pettit [Christopher.Pettit@swfwmd.state.fl.us]
Sent: Friday, September 28, 2012 9:25 AM
To: Stan Rieger; Larry Harris
Subject: FW: County Club Utilities conservation measures
Attachments: Country Club Utilities 150- 2009 per capita.xlsx; Country Club Utilities Model Input 8-2011.docx; Country Club Utilities 150- 5yr capita avg #2.xlsx
 Good morning...

As previously discussed, attached are costs and impact numbers for a variety of water conservation measures that the District has recommended for Country Club Utilities, Inc. As noted in Nick Makris' email, we will be getting you something more comprehensive early next week. However, I wanted to give you something to get you started. I think that the most interesting documents will be the first excel spreadsheet and the MS Word document detailing the model input. If you need to follow up, please don't hesitate to contact me with any questions and I will be happy to set up a call.

Thanks

Christopher Pettit
 Staff Attorney
 Southwest Florida Water Management District
 christopher.pettit@swfwmd.state.fl.us
 (813) 985-7481 ext. 4652

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From: Nick M. Makris
Sent: Thursday, September 27, 2012 4:55 PM
To: Christopher Pettit
Cc: Jay Yingling; Jay Hoecker
Subject: County Club Utilities conservation measures

Chris,
 I just realized that I have training all day tomorrow so wanted to at least get something to you before next week.

So.. as to the District's acceptable/estimated savings expected per conservation measure, I think we should use our FY2014 CFI guidelines data (link below).
http://www.swfwmd.state.fl.us/download/view/site_file_sets/58/2013FinalWaterConservation.pdf

Table 1. Acceptable Data for Estimating Conservation Savings.

Targeted Water Use	Years Manufactured ¹	Application ²	Use/ Unit ³	Avg. Use/ Unit	Frequency of use	Service or Device	Use/ Unit ⁴	Est. Savings GPD ⁵	
Toilet	1980-94	Residential	GPF	3.5	5.1	Flushes per person per day	ULFT	1.6	9.7 ⁶
			GPF	3.5	5.1		HET ⁷	1.28	11 ⁶
		Commercial	NA	NA	NA		ULFT	1.6	16 - 57 ⁶
Urinal	1980-94	Commercial	GPF	3.0	2.0	Flushes per person per day	ULFU	1.0	4.0 ⁷
			GPF	3.0	2.0		HEU ⁸	0.5	5.0 ⁷
			GPF	3.0	2.0		Waterless	0.0	6.0 ⁷
Showerhead	1980-94	Residential	GPM	4.0	5.3	Min./person per day	Low-flow Showerhead	2.5	8.0 ⁸
		Residential	GPM	4.0	5.3		Low-flow Showerhead *	2.0	10.6 ⁸
Faucet / Aerators	1980-94	Residential - Kitchen	GPM	3.0	8.1	Min./person per day	Low-flow Faucet	2.5	2.7 ⁸
		Residential - Bathrooms	GPM	3.0	8.1		Low-flow Faucet *	1.5	12.2 ⁸
Clothes Washer	1990-98	Residential	GPL	43.0	0.4	Loads/day per person	Efficient Machines	27.0	6.4 ⁸
Dishwasher	1990-95	Residential	GPL	12.0	0.1	Loads/day per person	Efficient Machines	7.0	0.5 ⁸
Pre-Rinse Spray Valve	1980-2000	Commercial	GPM	3.0	NA	Gallons/min/Day	Low-flow spray Valve	1.6	100-300 ⁹
Rain Sensor Device*	NA	Residential	GPD	300	1	Irrigation Cycles/Day	Automatic Shut-off Device	200	100 ¹¹
Soil Moisture Devices	NA	Residential	GPD	300	1	Irrigation Cycles/Day	Automatic Shut-off Device	100	200 ¹¹

¹Original WaterSense Specification

The one measure that you do not see on this list is the one that should be top on the list for County Club Utilities to consider. Although **Outdoor Irrigation Audits/Evaluations** is variable when it comes to typical savings usually seen (due to site/soil conditions, nature of community, affluence of customers, irrigation water supply, etc.), we have seen average values of 150-200 gpd savings per eval. If you think the PSC will need an official document from the District, the two Jays and I will get together and get you something a little more definitive and concrete with references to actual studies.

I am also attaching the results of the District's current Conservation Model that has already been presented to Mr. Harris several times. Please keep in mind that based on the direction of FDEP, the WMDs will most likely be utilizing the Conserve Florida EZ Guide model in the near future in an effort for eliminating each District having their own model and achieving State-wide consistency. Our model assumes a 23% participation rate (based on historic project participation the District has seen). That said, I think we are all in agreement, when it probably would be best if they target the highest 20% of

DOCUMENT NUMBER-DATE

06512 SEP 28 02

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9/28/2012

the users in the service area and will see some major results.

More pertinent data--

(Approximations)

900 people

400 accounts

200,000 gallons per day outdoor use (81% of total)

45,000 gpd indoor use (18% of total) (Equates to about 50 gpd; District average is around 65-70 gpd so they are actually lower than average)

Hope this helps you out.. We will work on something more in depth for you and the PCS next week. Thanks,

Nick Makris

Staff Water Conservation Analyst

Southwest Florida Water Management District

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District Water Conservation Model

Utility Name:	Country Club Utilities
Permit Number:	7704
2009 Compliance Per Capita:	245
GPCD Required by 2014	210
2015 population:	1046
Savings per person based on model savings:	26
Per capita reached by 2014 w/ model savings:	219

Table 1. Based on 23% participation.

Conservation Measure	Sector	Targeted Number Fixtures	Total Water Savings (gpd)
Clothes Washer Rebate	SF	90	1,467
Clothes Washer Rebate (MF Common Area)	MF	0	0
Clothes Washer Rebate (MF in-unit)	MF	6	65
Plumbing Retrofit Kit	SF	30	360
Plumbing Retrofit Kit	MF	6	72
ULV Toilet Rebate	SF	75	1,995
ULV Toilet Rebate	MF	10	203
Dual-flush Toilet Rebate	SF	0	0
Water Efficient Landscape and Irrigation Evaluation & Rebate	SF	72	10,080
Water Efficient Landscape and Irrigation Evaluation & Rebate	MF	16	2,288
Soil Moisture Shut-off Device	SF	36	7,200
Soil Moisture Shut-off Device	MF	8	1,600
Rain Sensor Shut-off Device	SF	36	1,800
Rain Sensor Shut-off Device	MF	8	400
ULV Toilet Rebate	IC	0	0
Totals			27,530

2009 Compliance Per Capita:	245
GPCD Required by 2019	150
2020 population:	1089

Savings per person based on model savings:	29
Per capita reached by 2019 w/ model savings:	216

Table 2. Based on 23% participation.

Conservation Measure	Sector	Targeted Number Fixtures	Total Water Savings (gpd)
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Clothes Washer Rebate	SF	184	2,999
Clothes Washer Rebate (MF Common Area)	MF	0	0
Clothes Washer Rebate (MF in-unit)	MF	12	130
Plumbing Retrofit Kit	SF	60	720
Plumbing Retrofit Kit	MF	12	144
ULV Toilet Rebate	SF	117	3,112
ULV Toilet Rebate	MF	20	406
Dual-flush Toilet Rebate	SF	0	0
Water Efficient Landscape and Irrigation Evaluation & Rebate	SF	75	10,500
Water Efficient Landscape and Irrigation Evaluation & Rebate	MF	16	2,288
Soil Moisture Shut-off Device	SF	38	7,600
Soil Moisture Shut-off Device	MF	8	1,600
Rain Sensor Shut-off Device	SF	38	1,900
Rain Sensor Shut-off Device	MF	8	400
ULV Toilet Rebate	IC	0	0
Totals			31,799

Note: Table 2 includes the savings and costs through 2019, including results from Table 1.

Total Cost	Cost Benefit k/gal	Est. Per capita savings per measure
\$31,900	\$5.12	6.0
\$0	\$0.00	0.0
\$18,460	\$67.10	0.1
\$5,360	\$3.51	0.3
\$5,072	\$16.59	0.1
\$30,125	\$3.56	1.9
\$21,350	\$24.77	0.2
\$0	\$0.00	0.0
\$53,120	\$3.35	9.6
\$27,360	\$7.60	2.2
\$25,800	\$2.28	6.9
\$17,400	\$6.91	1.5
\$17,880	\$6.31	1.7
\$15,640	\$24.85	0.4
\$0	\$0.00	0.0
\$269,467		

Total Cost	Cost Benefit k/gal	Est. Per capita savings per measure
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\$64,440	\$5.00	2.8
\$0	\$0.00	0.0
\$36,920	\$67.10	0.1
\$10,720	\$3.51	0.7
\$10,144	\$16.59	0.1
\$55,795	\$5.41	2.9
\$42,700	\$24.77	0.4
\$0	\$0.00	0.0
\$107,620	\$3.30	9.6
\$54,720	\$7.60	2.1
\$52,200	\$2.21	7.0
\$34,800	\$6.91	1.5
\$35,920	\$6.03	1.7
\$31,280	\$24.85	0.4
\$0	\$0.00	0.0
\$537,259		

District Water Conservation Model

Utility Name: Country Club Utilities
 Permit Number: 7704
 2009 Compliance Per Capita: 245
 GPCD Required by 2014 224
 2015 population: 1046

Savings per person based on model savings: 58
 Per capita reached by 2014 w/ model savings: 187

Based on 50% participation.

Conservation Measure	Sector	Targeted Number Fixtures	Total Water Savings (gpd)
Clothes Washer Rebate	SF	196	3,195
Clothes Washer Rebate (MF Common Area)	MF	11	297
Clothes Washer Rebate (MF in-unit)	MF	12	130
Plumbing Retrofit Kit	SF	65	780
Plumbing Retrofit Kit	MF	14	168
ULV Toilet Rebate	SF	162	4,309
ULV Toilet Rebate	MF	22	447
Dual-flush Toilet Rebate	SF	9	338
Water Efficient Landscape and Irrigation Evaluation & Rebate	SF	157	21,980
Water Efficient Landscape and Irrigation Evaluation & Rebate	MF	34	4,862
Soil Moisture Shut-off Device	SF	79	15,800
Soil Moisture Shut-off Device	MF	17	3,400
Rain Sensor Shut-off Device	SF	79	3,950
Rain Sensor Shut-off Device	MF	17	850
ULV Toilet Rebate	IC	10	260
Totals			60,765

2009 Compliance Per Capita: 245
 GPCD Required by 2019 150
 2020 population: 1089

Savings per person based on model savings: 62
 Per capita reached w/ model savings: 183

Based on 50% participation.

Conservation Measure	Sector	Targeted Number Fixtures	Total Water Savings (gpd)
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Clothes Washer Rebate	SF	368	5,995
Clothes Washer Rebate (MF Common Area)	MF	23	621
Clothes Washer Rebate (MF in-unit)	MF	25	270
Plumbing Retrofit Kit	SF	117	1,404
Plumbing Retrofit Kit	MF	24	292
ULV Toilet Rebate	SF	162	4,309
ULV Toilet Rebate	MF	22	447
Dual-flush Toilet Rebate	SF	18	675
Water Efficient Landscape and Irrigation Evaluation & Rebate	SF	163	22,820
Water Efficient Landscape and Irrigation Evaluation & Rebate	MF	36	5,148
Soil Moisture Shut-off Device	SF	82	16,400
Soil Moisture Shut-off Device	MF	18	3,600
Rain Sensor Shut-off Device	SF	82	4,100
Rain Sensor Shut-off Device	MF	18	900
ULV Toilet Rebate	IC	10	260
Totals			67,241

Note 1: blue shaded cells indicate conservation measures reached the total potential by 2014, using this participation rate.

Note 2: Table 2 includes the savings and costs through 2020, including results from Table 1.

Total Cost	Cost Benefit k/gal	Est. Per capita savings per measure
\$48,860	\$3.60	3.1
\$19,260	\$3.05	0.3
\$19,420	\$35.29	0.1
\$5,780	\$1.75	0.7
\$5,168	\$7.25	0.2
\$41,870	\$2.29	4.1
\$22,970	\$12.11	0.4
\$21,890	\$15.28	0.3
\$92,220	\$2.67	21.0
\$35,640	\$4.66	4.6
\$38,700	\$1.56	15.1
\$20,100	\$3.76	3.3
\$21,320	\$3.43	3.8
\$16,360	\$12.23	0.8
\$21,350	\$19.34	0.0
\$430,908		57.8

Total Cost	Cost Benefit k/gal	Est. Per capita savings per measure
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\$93,850	\$3.78	5.5
\$38,680	\$2.82	0.6
\$39,000	\$32.85	0.2
\$11,404	\$2.12	1.3
\$10,292	\$9.76	0.3
\$41,870	\$0.00	4.0
\$22,970	\$0.00	0.4
\$43,780	\$15.28	0.6
\$187,200	\$2.65	21.0
\$72,200	\$4.51	4.7
\$78,300	\$1.53	15.1
\$40,500	\$3.60	3.3
\$42,880	\$3.34	3.8
\$32,800	\$11.61	0.8
\$21,350	\$0.00	0.0
\$777,076		61.5

Country Club Utilities

Please verify the following numbers and percentages and adjust them as you see fit. This information will be entered into the Water Conservation Model to develop a customized list of conservation measures.

- 1) Number of toilets per SF residence? 2.63 toilets
- 2) Number of toilets per MF residence? 1.73 toilets
- 3) Number of toilets per Industrial Commercial Institutional account? 5 toilets
- 4) Estimated percentage of homes/businesses built prior to 1995? 39%
- 5) Estimated percentage of SF homes with in-ground irrigation systems? 61%
- 6) Estimated percentage of MF homes with in-ground irrigation systems? 57%