

**Municipal Gas Authority of Georgia  
Winter Service Plan  
2017-18**

**Toccoa**

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In advance of the 2017-18 winter season, this plan has been prepared to communicate your design day needs. Please let us know if you have any questions.

### ACTION ITEMS

Feedback Requested:

Please review the Forecast Design Day on page 1 for both firm and interruptible load. Let us know if we have identified the interruptible demand (if applicable) correctly.

### SUMMARY

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### PHOTO CONTEST

This year's cover photo was taken in Ellijay, GA by MGAG's own Chris Strippelhoff of Marietta, GA.

Please be on the lookout for any great winter photo opportunities this season. Submit your photos to [ryoung@gasauthority.com](mailto:ryoung@gasauthority.com) to be entered in the contest for the 2018-19 Winter Service Plan cover photo. Employees of Member cities as well as MGAG staff are encouraged to participate. We look forward to highlighting our member cities in future years!!!

## Design Day Summary for 2017-18 Winter Toccoa

### Actual Peak Days (see page 2 for more details)

	<u>HDD</u>	<u>Date</u>	<u>Dth</u>
Historical 5-Year Peak:	38	02/18/15	10,941
Last Winter Peak Day:	31	03/15/17	9,059

\*Actual Peak Days include firm and interruptible load in dekatherms.

### Customers (see page 3 for more details)

		<u>Customer Count</u>
Active meters as of 12/31/2016	Firm:	6,588
	Interruptible:	8
	Total:	6,596

### Forecasted Design Day (Dekatherms) (see page 5 for more details)

	<u>Design Day Forecast</u>
Firm Forecasted Load at 51 HDD	9,304
Interruptible Demand	1,719
Total Design Day Demand	11,023

### Firm Services (see page 8 for more details)

	<u>2016-17 Capacity</u>	<u>Planned 2017-18</u>
Pipeline Capacity	6,993	6,993
Pine Needle/LGA/GSS Storage	3,913	3,913
AL Baseload Delivered	-	-
Winter Service Pool	-	-
Seasonal Capacity	-	-
Propane Air Plant Capacity	-	-
<b>TOTAL FIRM SERVICES</b>	<b>10,906</b>	<b>10,906</b>
<b>Firm Surplus / (Deficit)</b>		<b>1,602</b>

**Top 20 Peak Days - Last 5 Years**  
Toccoa

**Degree Day**

Heating Degree Days (HDD) are defined as the number of degrees the average temperature for a day is below 65 degrees. If the average temperature is 65 degrees or warmer, there are zero heating degree days and no heating is expected for the typical home or business. As the average temperatures get colder, more and more energy is needed to maintain a comfortable interior temperature. As an example, a high temperature of 46 degrees with a low of 24 degrees will result in an average temperature of 35 degrees and 30 HDD.

**Historic Peak Days - Last 5 Years**

<u>Rank</u>	<u>Date</u>	<u>Day of Week</u>	<u>HDD</u>	<u>Dth</u>
1	02/18/15	Wed	38	10,941
2	01/08/15	Thu	39	10,353
3	01/24/14	Fri	40	10,168
4	01/07/15	Wed	42	10,161
5	02/19/15	Thu	44	10,131
6	01/29/14	Wed	44	9,842
7	02/09/16	Tue	36	9,824
8	02/10/16	Wed	32	9,698
9	01/22/14	Wed	37	9,588
10	01/30/14	Thu	34	9,573
11	01/06/14	Mon	49	9,542
12	01/07/14	Tue	46	9,486
13	01/23/14	Thu	39	9,432
14	01/18/16	Mon	37	9,381
15	01/08/14	Wed	29	9,335
16	03/15/17	Wed	31	9,059
17	02/15/16	Mon	20	9,008
18	01/03/14	Fri	36	8,941
19	11/18/14	Tue	37	8,829
20	02/20/15	Fri	32	8,811

## Interruptible Customer Demand

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### Interruptible Service

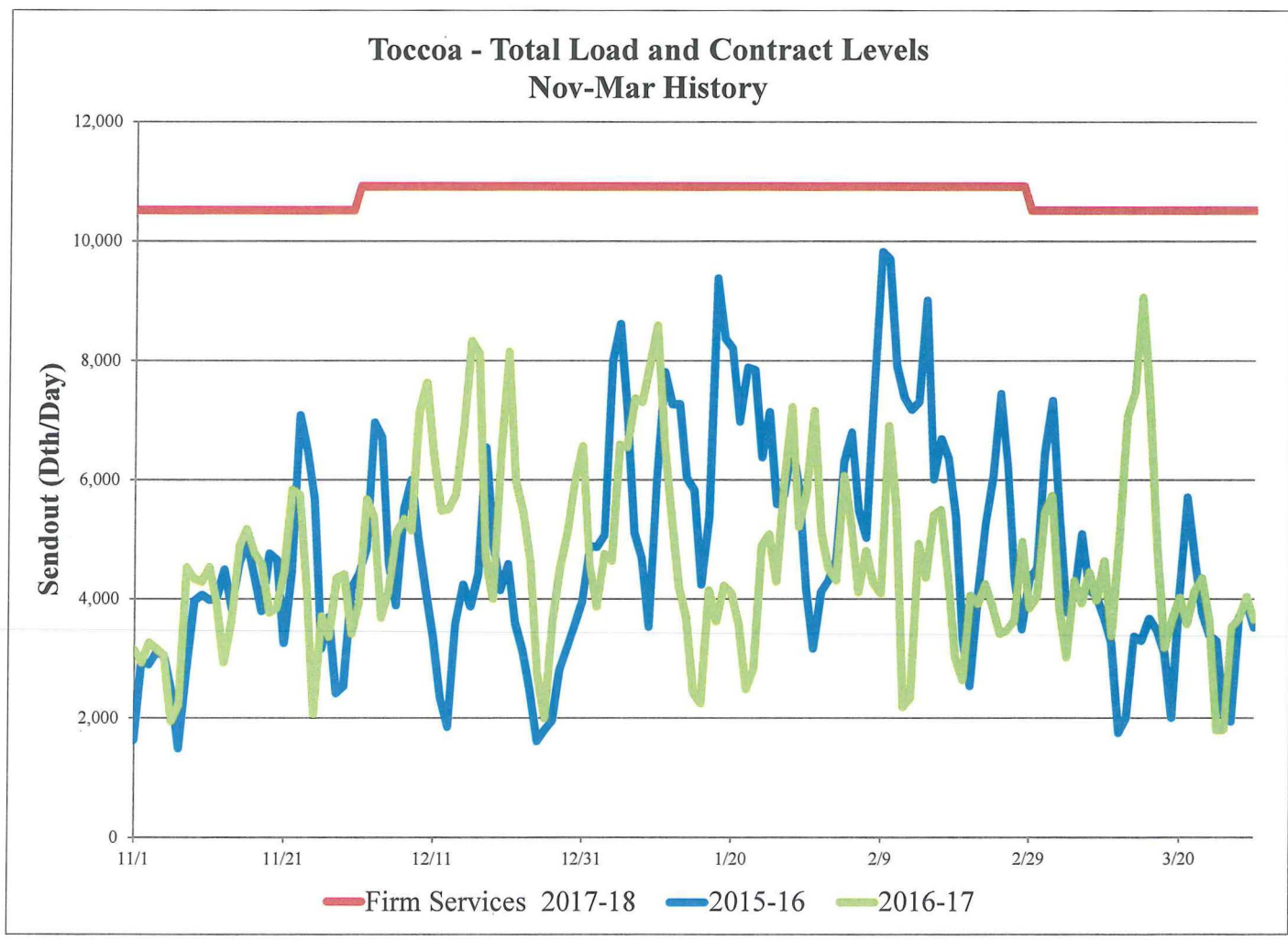
Customers who receive all or a portion of their gas service without a guarantee of constant supply in return for a lower rate are interruptible. An interruptible customer typically has an alternate fuel that can be utilized when natural gas is curtailed. Each Gas Authority member city determines the exact curtailment procedures that apply in their respective service area. If the member city does not curtail the load as a matter of policy, the load is considered firm.

When a customer's load is classified as interruptible and subject to curtailment, that demand is not included in the firm design day requirements and capacity will not be reserved to serve them. Service will be maintained whenever possible utilizing capacity not needed for firm demand which will occur on many days.

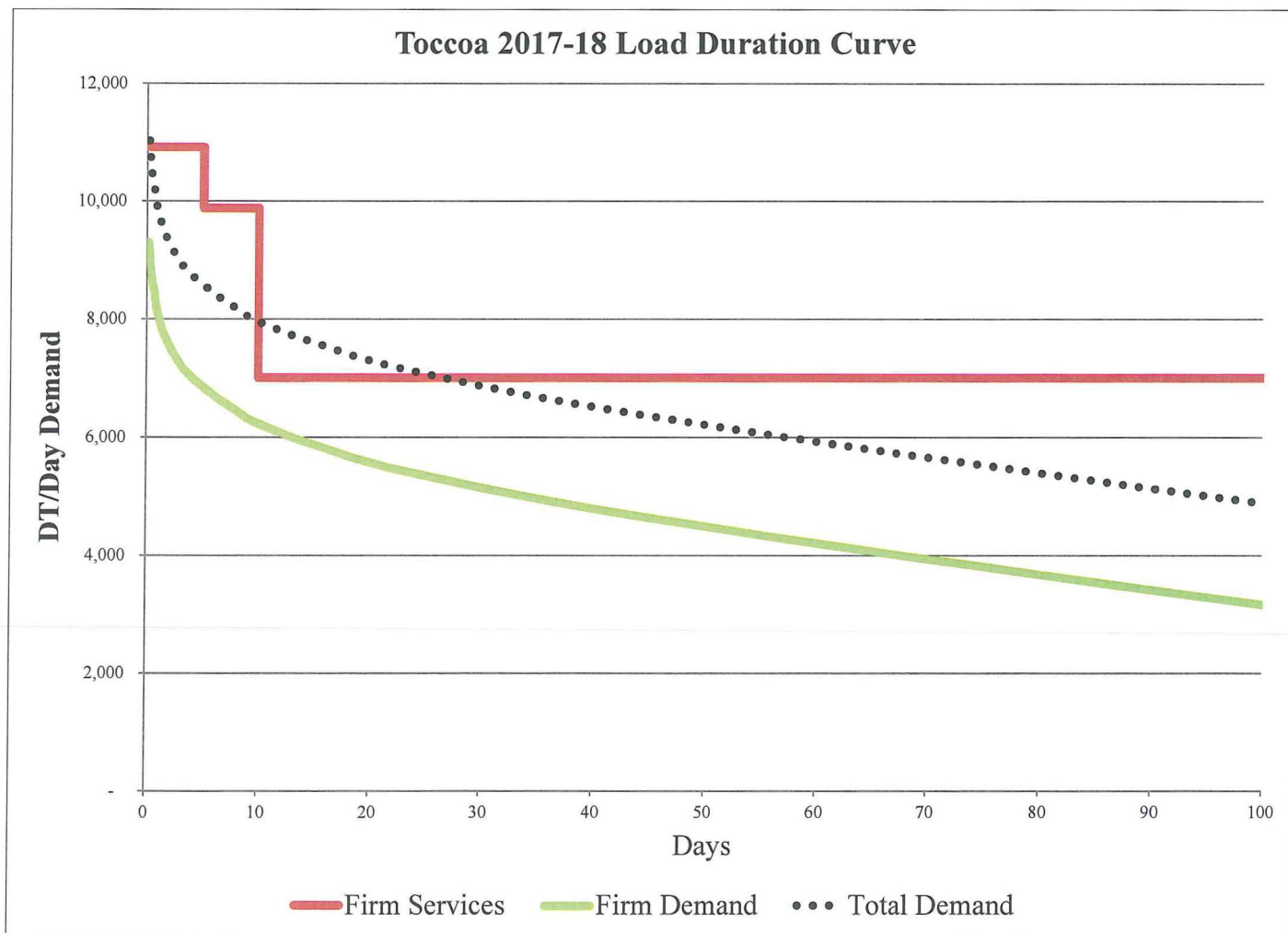
### Interruptible Customers:

(Quantities in Dekatherms)

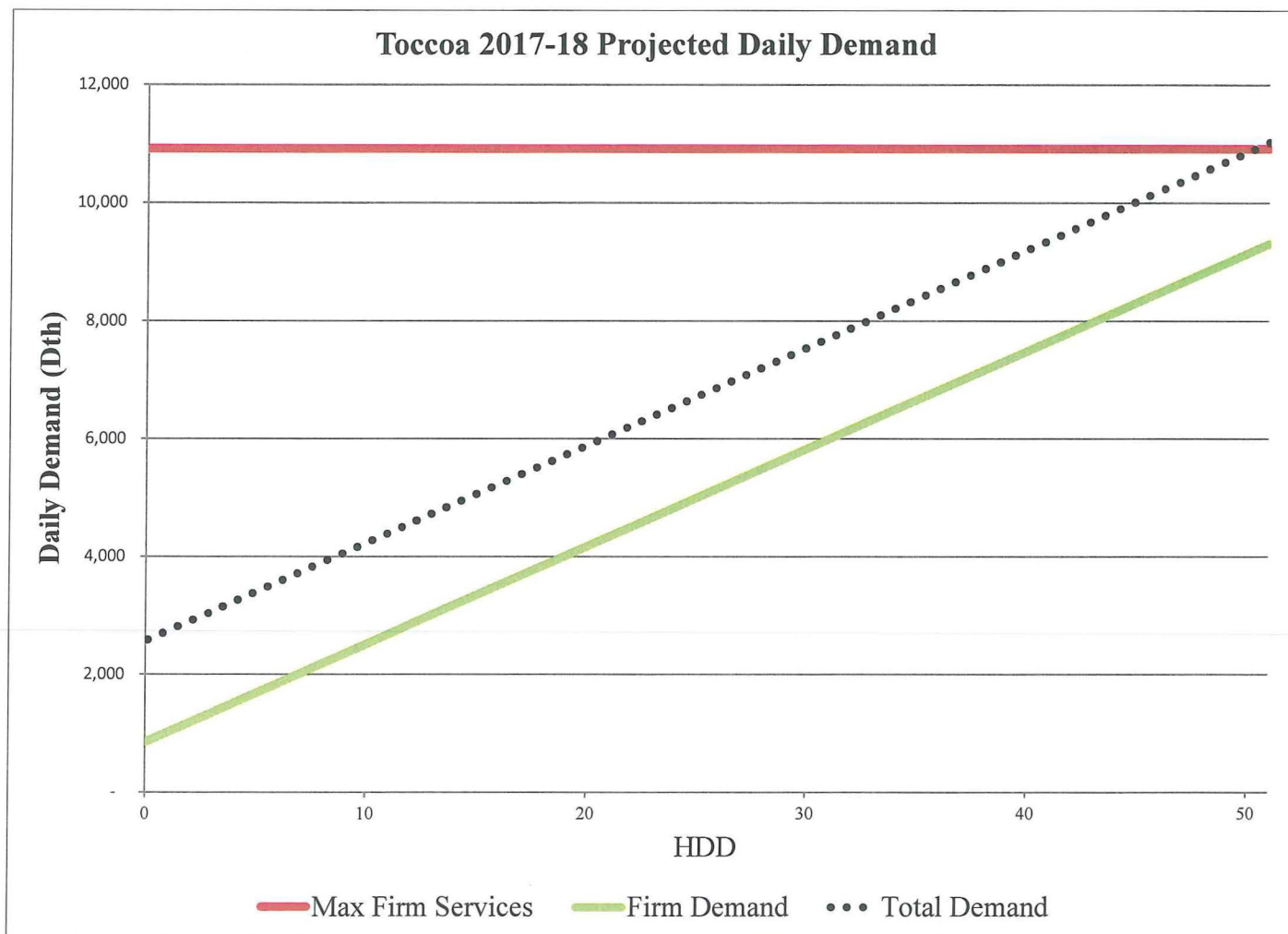
<u>Customer Name</u>	<u>2017-18 Design Day Forecast</u>
Columbia Farms	39
Fieldale Farms	1,046
Stephens Co. Hospital	128
Dewtex, Inc.	170
Catepillar, Inc.	128
Angel Medical	44
Shaw Ind.	126
C.W. Matthews - asphalt plant	38
Total	1,719



2017-18 Load Forecast Chart (Dth)								
Toccoa								
							Dec - Feb Total Firm Services:	10,906
Heating Degree				Heating Degree				
Day	Average Temp.	Firm Load	Total Load	Day	Average Temp.	Firm Load	Total Load	
0	65	848	2,567	26	39	5,159	6,878	
1	64	1,014	2,733	27	38	5,325	7,044	
2	63	1,180	2,899	28	37	5,490	7,209	
3	62	1,345	3,064	29	36	5,656	7,375	
4	61	1,511	3,230	30	35	5,822	7,541	
5	60	1,677	3,396	31	34	5,988	7,707	
6	59	1,843	3,562	32	33	6,154	7,873	
7	58	2,009	3,728	33	32	6,319	8,038	
8	57	2,174	3,893	34	31	6,485	8,204	
9	56	2,340	4,059	35	30	6,651	8,370	
10	55	2,506	4,225	36	29	6,817	8,536	
11	54	2,672	4,391	37	28	6,983	8,702	
12	53	2,838	4,557	38	27	7,148	8,867	
13	52	3,003	4,722	39	26	7,314	9,033	
14	51	3,169	4,888	40	25	7,480	9,199	
15	50	3,335	5,054	41	24	7,646	9,365	
16	49	3,501	5,220	42	23	7,812	9,531	
17	48	3,667	5,386	43	22	7,977	9,696	
18	47	3,832	5,551	44	21	8,143	9,862	
19	46	3,998	5,717	45	20	8,309	10,028	
20	45	4,164	5,883	46	19	8,475	10,194	
21	44	4,330	6,049	47	18	8,641	10,360	
22	43	4,496	6,215	48	17	8,806	10,525	
23	42	4,661	6,380	49	16	8,972	10,691	
24	41	4,827	6,546	50	15	9,138	10,857	
25	40	4,993	6,712	51	14	9,304	11,023	







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11/1/2017

## Transco Monthly Contract Quantities (Dth)

<u>Contract Type</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>
PSFT *	-	-	-	-	-	-	-	-	-	-	-	-
FTG * (One Part FT)	-	-	-	-	-	-	-	-	-	-	-	-
CFT *	1,381	1,898	2,300	2,300	2,300	1,898	1,381	346	346	294	290	346
IFT	-	-	-	-	-	-	-	-	-	-	-	-
SE94	-	-	-	-	-	-	-	-	-	-	-	-
SE95/96	-	-	-	-	-	-	-	-	-	-	-	-
SFT *	-	-	-	-	-	-	-	-	-	-	-	-
Sunbelt	518	518	518	518	518	518	518	518	518	518	518	518
BG&E	-	-	-	-	-	-	-	-	-	-	-	-
Cherokee	2,070	2,070	2,070	2,070	2,070	2,070	2,070	2,070	2,070	2,070	2,070	2,070
SouthCoast	2,105	2,105	2,105	2,105	2,105	2,105	2,105	2,105	2,105	2,105	2,105	2,105
Sundance	-	-	-	-	-	-	-	-	-	-	-	-
Momentum	-	-	-	-	-	-	-	-	-	-	-	-
Temp Release of BG&E	-	-	-	-	-	-	-	-	-	-	-	-
<u>Total FT</u>	<u>6,074</u>	<u>6,591</u>	<u>6,993</u>	<u>6,993</u>	<u>6,993</u>	<u>6,591</u>	<u>6,074</u>	<u>5,039</u>	<u>5,039</u>	<u>4,987</u>	<u>4,983</u>	<u>5,039</u>
GSS - 50d	-	-	-	-	-	-	-	-	-	-	-	-
ALBaseload Delivered	-	-	-	-	-	-	-	-	-	-	-	-
Winter Service Pool	-	-	-	-	-	-	-	-	-	-	-	-
Pine Needle - 10d	-	2,898	2,898	2,898	2,898	2,898	-	-	-	-	-	-
PN - Transco 5-4 Fuel**	-	(20)	(20)	(20)	(20)	(20)	-	-	-	-	-	-
<u>LNG - 5d</u>	<u>-</u>	<u>1,035</u>	<u>1,035</u>	<u>1,035</u>	<u>1,035</u>	<u>1,035</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>Total Storage/Peaking</u>	<u>-</u>	<u>3,913</u>	<u>3,913</u>	<u>3,913</u>	<u>3,913</u>	<u>3,913</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Seasonal Capacity	-	-	-	-	-	-	-	-	-	-	-	-
<u>Total Capacity (Dth/Day)</u>	<u>6,074</u>	<u>10,504</u>	<u>10,906</u>	<u>10,906</u>	<u>10,906</u>	<u>10,504</u>	<u>6,074</u>	<u>5,039</u>	<u>5,039</u>	<u>4,987</u>	<u>4,983</u>	<u>5,039</u>

\* Capacity entitlement varies by month

\*\*Pine Needle reduced for Transco 5-4 fuel of 0.68%

## MGAG 5 Year Demand and Capacity Analysis - Toccoa

	2013-14	2014-15	2015-16	Prev Year 2016-17	Year 1 2017-18	Year 2 2018-19	Year 3 2019-20	Year 4 2020-21	Year 5 2021-22
Customer Count	6,494	6,494	6,536	6,596	6,596	6,629	6,662	6,695	6,728
Growth Rate				0.9%	0.0%	0.5%	0.5%	0.5%	0.5%
Projected Design Day			HDD	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
<b>Firm Design Day Demand</b>			<b>51</b>	<b>9,526</b>	<b>9,299</b>	<b>9,346</b>	<b>9,392</b>	<b>9,439</b>	<b>9,485</b>
NGV Demand				5	5	5	6	6	6
Interruptible Demand				1,689	1,719	1,719	1,719	1,719	1,719
<b>Total Projected Design Day Demand</b>				<b>11,220</b>	<b>11,023</b>	<b>11,070</b>	<b>11,117</b>	<b>11,164</b>	<b>11,210</b>
<b>Firm Services</b>									
FT				6,993	6,993	6,993	6,993	6,993	6,993
GSS				-	-	-	-	-	-
AL Baseload Delivered				-	-	-	-	-	-
Winter Service Pool				-	-	-	-	-	-
Pine Needle				2,878	2,878	2,878	2,878	2,878	2,878
LNG/LGA				1,035	1,035	1,035	1,035	1,035	1,035
Propane Plant				-	-	-	-	-	-
Seasonal Capacity / (Shared with Others)				-	-	-	-	-	-
<b>Total Firm Services</b>				<b>10,906</b>	<b>10,906</b>	<b>10,906</b>	<b>10,906</b>	<b>10,906</b>	<b>10,906</b>
<b>Firm Long/(Short) Dth</b>				<b>1,375</b>	<b>1,602</b>	<b>1,555</b>	<b>1,508</b>	<b>1,461</b>	<b>1,415</b>
				13%	15%	14%	14%	13%	13%

Long - There are firm services sufficient to meet the projected firm requirements on the design day

Short - The projected firm requirements on the design day are greater than the firm services available and more capacity is recommended if available