



Thursday, September 16, 2010

# DPU WORKGROUP ISSUES AND CONCERNS, REPORT CONTENT

# Company sample rotation schedule


	Residential	Schedule 6	Schedule 23	Irrigation
2011				
2012				X
2013	X			
2014			X	
2015		X		
2016				
2017				
2018	X			X
2019			X	
2020		X		

# Division-proposed sample rotation schedule

	Residential	Schedule 6	Schedule 23	Irrigation
2011	X		X	
2012		X		X
2013				
2014				
2015				
2016	X		X	
2017		X		
2018				X
2019				
2020				



# Division proposal for Schedule 1 sample size.

- Recommend to the PSC that the Company increase its 170 sample size over 40 percent to about 250 meters.
  - Recommend to the PSC that this be accelerated and accomplished in 2011.
  - Rotation should increase sample size and be accelerated.
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# Division proposal for Schedules 6 and 23 sample size.

- Recommend to the PSC that the Company increase its Schedule 6 sample size of 107 about 40 percent to 150 meters and its Schedule 23 sample size of 75 about 40 percent to over 100 meters.
- Recommend to the PSC that this be accomplished
  - in 2011 for Schedule 23.
  - in 2012 for Schedule 6.
- Rotations should increase sample size and be accelerated.

# Division recommendation for known weird months

- Good example was October, with a 38 percent deviation and an unusual peak day occurrence.
- Months like October should be subjected to further investigation in order to determine the cause of the variance.
- After investigation, it may be appropriate to exclude a month like October from a determination of the appropriate cost of service or recalibration.
- We don't want to size the overall sample due to a bad October.
- They're not worth discussing or analyzing if the rest of the year results in reliable estimates (e.g. the difference between jurisdictional and class load estimates is under 2 percent).

# Summary of Increasing Difference Between Jurisdictional Totals and Sum of Class Loads

Docket	Test Year Ending	Jurisdictional Total	Sum of Class Loads	Difference	Percent Difference	Percent Difference Negative Months	Largest Percent Difference Month
01-035-01	Sep 2000	30,431	30,628	197	0.6%	5	7%
03-035-02	Mar 2003	34,175	34,462	287	0.8%	4	9%
04-035-42	Mar 2006	38,784	39,141	357	0.9%	6	39%
06-035-21	Sep 2007	39,764	38,766	-998	-2.5%	7	12%
07-035-93	Dec 2008	41,663	39,604	-2,059	-4.9%	10	-16%
08-035-38	Dec 2009	41,919	38,235	-3,684	-8.8%	9	-20%
09-035-23	Jun 2010	40,968	37,378	-3,590	-8.8%	10	-21%

# Division compromise proposal for class loads/jurisdictional recalibration – 2%, 5%, 10%

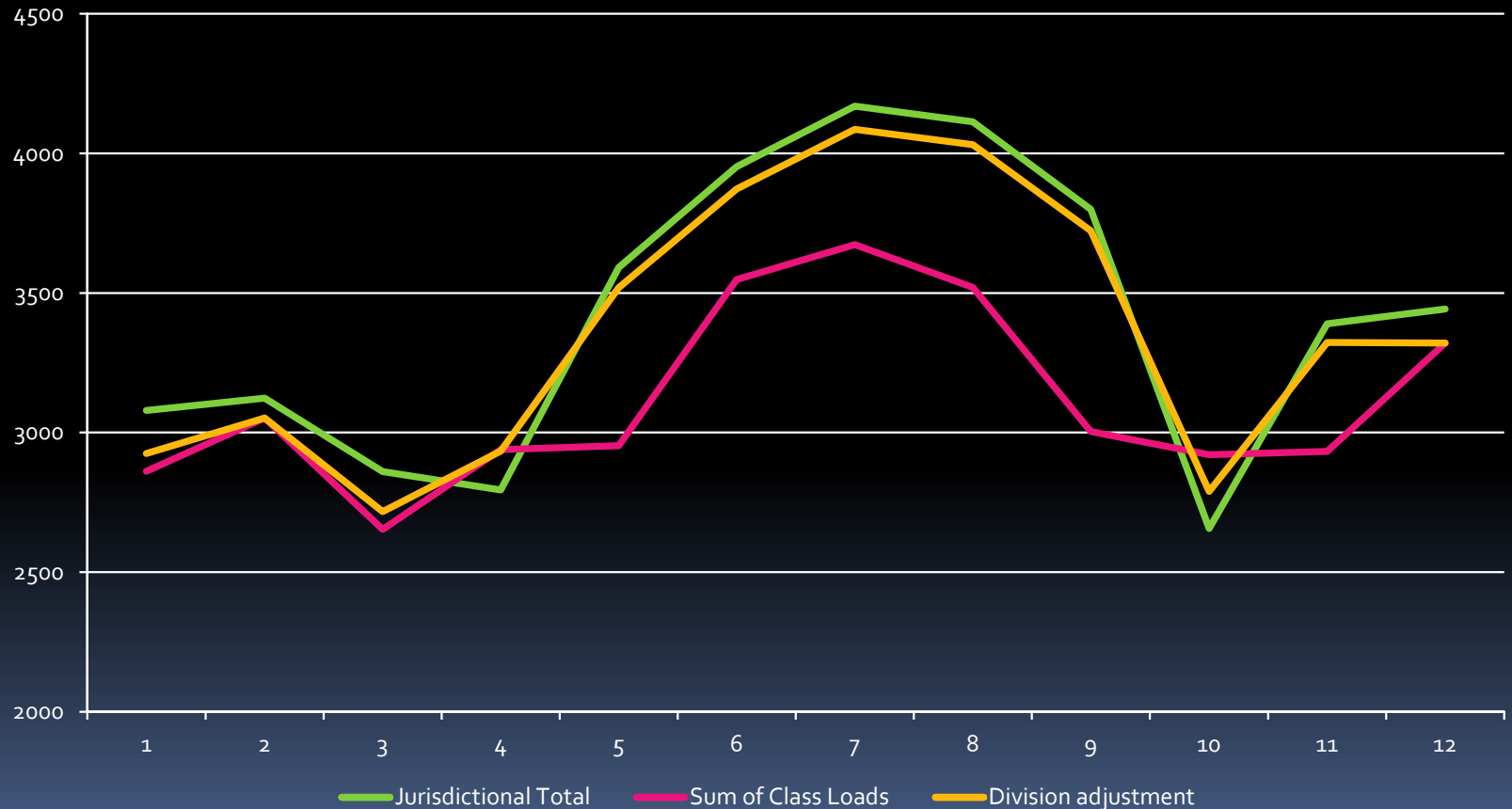
- Recalibration should have a reasonable annual tolerance – 2 percent.
- No months recalibrated if within 5 percent.
- Months over 5 percent but less than 10 percent are automatically recalibrated to 5 percent.
- Months over 10 percent will require further investigation before decision to recalibrate to 2 percent.



# First Recalibration Example with Division Adjustment

	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	annual
Jur	3079	3123	2860	2794	3591	3952	4169	4113	3799	2656	3390	3442	40,968
Class	2861	3052	2653	2939	2953	3548	3673	3520	3004	2921	2932	3321	37,377
Diff	(218)	(71)	(207)	145	(638)	(404)	(496)	(593)	(795)	265	(458)	(121)	(3590)
As %	-7.1%	-2.3%	-7.2%	5.2%	-17.8%	-10.2%	-11.9%	-14.4%	-20.9%	9.9%	-13.5%	-3.5%	-8.8%
Step 1		3052										3321	
Step 2	2925	3052	2717	2934						2789		3321	
Step 3	2925	3052	2717	2934	3519	3873	4086	4031	3723	2789	3322	3321	40,291
Diff	-154	-71	-143	140	-72	-79	-83	-82	-76	133	-68	-121	-677
As %	-5.0%	-2.3%	-5.0%	5.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	5.0%	-2.0%	-3.5%	-1.7%

# First Recalibration Example with Division Adjustment




# Report Content

The Division has identified five broad issues:

- 1) Whether the Company's load research program meets the PURPA standard (DPU);
- 2) The variability in the irrigation class (OCS);
- 3) Whether the load research sample design is out of date (UIEC);
- 4) Weather adjustment of load data (UIEC); and
- 5) Class vs. jurisdictional peaks and calibration issues (UIEC and UAE).



# Issue 1


- Whether the Company's load research programs meets the PURPA standard (DPU).
    - The PURPA standard is open to interpretation.
    - The stratified random sample design is not challenged.
    - Was the sample designed to estimate class monthly loads?
    - An increased sample size should allow the Company to estimate MONTHLY load within plus or minus 10 percent of actual, 90 percent of the time.
  - Recommendation: Division proposes accelerated sample rotations with increased sample sizes.
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# Issue 2

- The variability in the irrigation class (OCS).
  - Irrigation customer sample data were drawn from customers who actively irrigated in the previous 2 years.
  - These estimates are expanded to the entire irrigation class, which is then compared to actual billed energy.
  - Do sample data provide load estimates consistent with actual usage?
  - Could omitting the “inactive” customers from the sample bias the resulting class load estimates?
  - Given the highly variable irrigation loads, is it possible to develop reliable load research data for this class?
- Recommendation: Division proposes ... That the workgroup discuss Issue 2.



# Issue 3

- Whether the load research sample design is out of date (UIEC).
    - The sample designs were in fact out of date.
    - The Company has proposed a sample rotation schedule.
  - Division proposes accelerated sample rotations with increased sample size.
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# Issue 4

- Weather adjustment of load data (UIEC).
  - Is the proper weather adjustment used to reflect peak usage?
  - Should load data be adjusted to reflect typical “peak-making weather”?
  - UIEC Data Request 2.15.
- Recommendation: Division proposes .... That the workgroup discuss Issue 4.

# Issue 5

- Class vs. jurisdictional peaks and calibration issues (UIEC and UAE).
  - The sum of the class loads began to deviate from the jurisdictional totals in the past few years.
  - As Slide 8 showed (from Brubaker October 2009 direct): 1) the percent difference increased; 2) the class loads were lower in more months of each year; and 3) the percent difference for problem months was becoming larger.
  - Overhauling the sample in 2008 partially fixed this problem.
  - Acceptability of the November rebuttal method/COS study going forward.
  - Adjustments to the November rebuttal method that might improve it.
- Recommendation: Division proposes reasonable tolerances of 2 %, 5%, and 10% for recalibration (a solution until the new sample data become available).





# Conclusion and Discussion

- Areas of Consensus
  - Areas of No Consensus
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