BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In The Matter of the Application of Duke Energy Ohio, Inc., for Approval to Modify Rider FBS, Rider EFBS, and Rider FRAS	))))	Case No. 15-0050-GA-RDR

DIRECT TESTIMONY OF THOMAS SCARPITTI ON BEHALF OF THE RETAIL ENERGY SUPPLY ASSOCIATION

July 21, 2015

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I. INTRODUCTION

Q1. Please state your full name, title and business address.

A1. My name is Thomas Scarpitti. I am employed by Interstate Gas Supply, Inc. ("IGS") as Gas Supply Director. My business address is 6100 Emerald Parkway, Dublin, Ohio 43016.

Q2. Please provide your background and qualifications.

A2. I received a bachelor's degree in business administration with a specialization in logistics from The Ohio State University in 1996. Immediately upon graduating, I began my career in the energy field at Enron Energy Services and I have worked in retail energy for 19 years in various roles, including scheduling, trading, and leadership. I joined IGS in 2001 as Gas Supply manager and attained the title of Gas Supply Director in 2012, a title I hold today. I am responsible for managing the local production, scheduling, and trading groups consisting of seven employees for the eastern part of IGS' service territory. This region is composed of Ohio and all areas east, including the Duke Energy Ohio, Inc. ("Duke") service territory.

Q3. On whose behalf are you testifying today?

A3. I am testifying on behalf of the Retail Energy Supply Association ("RESA"). RESA is a national trade association of competitive retail natural gas and electric power suppliers. IGS is a member of RESA. The other members of RESA are listed on RESA's website.

23 **II. PURPOSE OF YOUR TESTIMONY**

24 **Q4. What is the purpose of your testimony?**

25 A4. On behalf of RESA, I am responding to the proposal contained in Duke's
26 Application as supplemented by the testimony submitted by Duke witness Jeff
27 Kern. Specifically, I question the need for: (a) the proposed change; (b) the
28 equity of withdrawing the right to contract for the firm balancing service ("FBS")
29 for just the larger competitive retail natural gas service ("CRNGS") providers; (c)
30 implementing so radical a change in balancing services without giving sufficient
31 notice and a chance for CRNGS providers to adapt; and (d) not implementing a
32 change in balancing services well in advance of the heating season in which the
33 change is to be made. Finally, I propose a contingent plan which could be used
34 if the Enhanced Firm Balancing Service ("EFBS") is found to be undersubscribed.

35 **Q5. Can you summarize your recommendations?**

36 A5. Yes, I first recommend that the Public Utilities Commission of Ohio
37 ("Commission") reject Duke's proposal, as Duke has not shown that the EFBS
38 service is undersubscribed, and if the EFBS is found to be undersubscribed,
39 making EFBS mandatory for large CRNGS providers is an ineffective method of
40 addressing undersubscription. Second, to the extent that the Commission
41 determines that changes to Duke's balancing options are necessary, I
42 recommend that the Commission approve a less restrictive approach through
43 which CRNGS providers assist Duke in balancing its system while allowing
44 suppliers to maintain an option to elect between EFBS and FBS. Third, in the
45 event that the Commission authorizes Duke's proposal to make EFBS

46 mandatory, I recommend that the Commission reject Duke's proposal to
47 discriminate against larger CRNGS providers. Fourth, since the EFBS service
48 depends on an annual storage injection and withdraw program, any major
49 change to the balancing tariffs must be made at least two storage seasons in
50 advance to allow suppliers to adjust their supply programs and retail service
51 agreements.

52 **III. EXPLANATION OF DUKE'S PROPOSAL**

53 **Q6. Can you please explain what Duke is proposing in its Application?**

54 A6. Yes. In its Application, Duke has proposed to eliminate the FBS service option
55 for CRNGS providers that have more than 20,000 dekatherms ("Dth") maximum
56 daily delivery quantity ("MDQ") of demand on the Duke system. Duke proposes
57 that all CRNGS providers below the 20,000 MDQ threshold should be allowed to
58 maintain the option to elect between FBS and EFBS service. Duke claims that
59 this change is needed because *potentially* too few CRNGS providers could elect
60 the EFBS option, which could cause Duke not to be able to cycle through its
61 storage assets.

62 **Q7. Is Dukes proposal reasonable?**

63 A7. No. Duke's proposal is unreasonable for multiple reasons. First, as discussed in
64 the testimony of Witness White, Duke's proposal seeks to unilaterally alter the
65 terms of negotiated settlement agreements establishing terms of the Duke's
66 Choice program. Such modifications should not be made to the Choice program
67 on an island without examining all of the inequities that exist within the Choice

68 program. Second, Duke's proposal would penalize only the largest CRNGS
69 providers, while allowing the smaller CRNGS providers to maintain the option to
70 elect between EFBS and FBS service. There is no justifiable reason to
71 discriminate against one set of CRNGS providers, particularly given there are
72 less restrictive means to alleviate any reliability concerns on Duke's system as I
73 explain further in my testimony.

74 **Q8. Has Duke demonstrated that it cannot balance its system if the status quo**
75 **remains?**

76 A8. No, it is first important to understand the problem that Duke has presented in its
77 Application. Duke claims that ***if*** an insufficient amount of the Duke retail customer
78 load is supplied by CRNGS providers who do not elect EFBS
79 (undersubscription), Duke will not be able to manage its storage assets. Duke
80 has not claimed that it has incurred pipelines penalties based upon historical or
81 existing EFBS elections or that it is certain that during the 2016-2017 or 2017-
82 2018 storage years EFBS will be undersubscribed (Duke already has sufficient
83 subscriptions for 2015-2016). In other words, Duke demands limits on the current
84 tariff right of CRNGS providers to elect either FBS or EFBS based on a
85 hypothetical undersubscription that has not happened in the past and may not
86 occur in the future.

87 **IV. RECOMMENDATIONS**

88 **Q9. Assuming that the Commission agrees that Duke has identified a potential**
89 **problem with its ability to manage its storage assets, do you have an**

90 **alternative, more reasonable recommendation that the Commission could**
91 **adopt?**

92 A9. Yes, Duke's proposal is harmful to the competitive market inasmuch as it would
93 eliminate an existing option to elect between FBS and EFBS. In addition, the
94 proposal would discriminate against larger CRNGS providers and create last
95 minute cost increases to only larger suppliers in the process. I have developed a
96 safety net plan that would allow Duke to balance its system without eliminating
97 the option to elect FBS or EFBS, and without discriminating against any class of
98 CRNGS providers therefore keeping a level competitive landscape. We have not
99 had an undersubscription take place to date, and may not have one in the
100 foreseeable future. Thus, I recommend that instead of withdrawing the right of
101 the largest CRNGS providers or transportation customers to elect FBS now,
102 Duke set up a contingent plan so that if there is an undersubscription of EFBS
103 service the contingency plan goes into effect at that time. Further, I recommend
104 that the mandatory use of an EFBS-type service be limited to just the amount
105 needed to address the short fall. This would ensure all suppliers regardless of
106 size are treated fairly, are all required to participate in system reliability and that
107 any cost increases are known far enough in advance to ensure suppliers are not
108 hit with last minute unknown charges.

109 **Q10. Can you summarize your alternative proposal?**

110 A10. Yes. From a high level, I propose that, to the extent that there are insufficient
111 EFBS elections to allow Duke to cycle through its storage assets, CRNGS

112 providers on FBS take a pro rata allocation of the storage. That way, CRNGS
113 providers can deliver gas in and out of storage pursuant to a preset schedule that
114 will allow Duke to cycle through its storage assets.

115 **Q11. Can you describe your proposal further?**

116 A11. Yes, I recommend that the Commission set a baseline amount of storage that will
117 be assigned to CRNGS providers. If the amount is not met through EFBS
118 elections, Duke would allocate the shortfall to CRNGS providers electing FBS on
119 a pro rata basis.

120 **Q12. What is an acceptable baseline to trigger the operation of your proposal?**

121 A12. In its Application, Duke provided historical data with respect to CRNGS provider
122 elections between EFBS and FBS. For the winters of 2013/2014 and 2014/2015,
123 CRNGS providers electing EFBS reflected 41,400 Dth and 32,400 Dth
124 respectively. During that time, Duke experienced the coldest winters since the
125 inception of the Choice program. At these levels, Duke was able to manage its
126 storage assets without incurring penalties. While RESA does not concede that
127 Duke could not manage its storage assets if less storage were assigned to
128 CRNGS providers, RESA posits that the Commission should select a level
129 equivalent to the 2013/2014 level of 41,400 Dth as an acceptable amount of
130 storage allocated to CRNGS providers. Using Duke's data for the 2013/2014
131 winter period, the total capacity required by FT/RFT shippers to meet a peak day
132 was 464,337 Dth. Duke Application at Attachment 5. Dividing the EFBS level of
133 41,400 that was elected for the same winter yields an EFBS level of

134 approximately 9% of the capacity requirement. Given that the winter of
135 2013/2014 was one of the coldest on record and Duke was able to manage its
136 storage adequately, that level of 9% is sufficient as a threshold going forward.

137 **Q13. Can you please give a hypothetical example of how the allocation process**
138 **would function if CRNGS providers' EFBS elections dropped below 9% of**
139 **the FT/RFT capacity requirement?**

140 A13. It's a relatively straightforward process. Assume there are 6 CRNGS providers on
141 Duke's system. Also assume for illustration purposes 9% is equal to 41,400
142 MDQ and that 2 CRNGS providers electing EFBS were allocated 20,000 MDQ of
143 storage. The remaining 21,400 MDQ would then need to be assigned to the 4
144 CRNGS providers that elected FBS on a pro rata basis based upon their market
145 share. The CRNGS providers that received a pro rata allocation would then
146 deliver gas to Duke pursuant to a set delivery schedule. It is this delivery
147 schedule that is crucial to allowing Duke to cycle through its storage assets.
148 Below is a simplified chart illustrating my example:

EFBS Threshold	41,400		
	Supplier Peak Day	EFBS MDQ Elected	Storage MDQ Assigned
Supplier 1	50,000	15,000	0
Supplier 2	16,667	5,000	0
Supplier 3	177,670	0	9,561
Supplier 4	80,000	0	4,305
Supplier 5	75,000	0	4,036
Supplier 6	65,000	0	3,498
Total	464,337	20,000	21,400

149

150 Also attached to my testimony as Ex. TS1 is a more detailed spreadsheet of how
151 my proposal would work using actual anonymous supplier data at various levels

152 of EFBS elections. (The CRNGS providers' MDQs relied on in Ex. TS1 are
153 based on information received in discovery from Duke, as shown in Ex. TS3.)

154 **Q14. Would your proposal apply to all CRNGS providers that elect FBS?**

155 A14. My proposal would apply to all CRNGS providers with an MDQ over 1,000 Dth.
156 This would spread the responsibility of assisting Duke to manage its storage
157 assets over nearly all suppliers and avoid the discrimination inherent in Duke's
158 proposal. By spreading the responsibility over CRNGS providers at this level, the
159 burden on each supplier will also be reduced. I have attached a spreadsheet
160 that demonstrates how my proposal would work using anonymous CRNGS
161 provider data. While Duke suggests that allocating EFBS to CRNGS providers
162 with a threshold MDQ of 20,000 Dth or more makes very little difference on the
163 capacity portfolio when compared to a lower MDQ threshold, it neglects the fact
164 that the higher threshold does affect individual suppliers significantly and
165 discriminates against the largest suppliers on the system to the detriment of the
166 competitive market.

167 **Q15. Would your proposal work if the Commission required Duke to only**
168 **allocate storage to CRNGS providers with an MDQ higher than 3,000 Dth?**

169 A15. Yes, it could but it would not be ideal. For example, allocating storage on a pro
170 rata basis to CRNGS providers with an MDQ above 3,000 Dth would still be
171 much more favorable than Duke's proposal, but RESA believes that 1,000 Dth
172 would provide a more even playing field. The current Duke FRAS tariff has a
173 1,000 Dth/day level as the threshold a supplier must hit to have the option to

174 elect EFBS. CRNGS providers under the 1,000 Dth/day MDQ threshold must
175 receive balancing under rider FBS. The purpose of such a threshold is to avoid
176 de minimis allocations of capacity and storage while taking into account the need
177 to ensure a level playing field for all suppliers. In addition, RESA would want to
178 avoid applying the process to certain large customers that act as shippers on the
179 system while still maintaining a fair competitive landscape between CRNGS
180 providers. The threshold level of 1,000 Dth achieves this.

181 **Q16. Is your proposal similar to Mr. Kern's proposal to manage its storage by**
182 **modifying the Target Supply Quantity ("TSQ") in the summer and winter?**

183 A16. There are some similarities, but it is not exactly the same. Mr. Kern discusses
184 the possibility of modifying the TSQ for all suppliers. My alternative proposal
185 would operate on a very small scale relative to what Mr. Kern discussed.

186 **Q17. Would suppliers receive the benefit of a summer/winter spread under your**
187 **proposal?**

188 A17. While I recognize that such spreads may exist, it is difficult to determine in
189 advance if there will be a spread between the summer and winter months for a
190 future year, let alone the amount. For example, last winter, we observed falling
191 prices as we entered the winter. Thus, at times there may be negative price
192 spreads between the summer and winter.

193 **Q18. Should CRNGS providers provide compensation to Duke or the retail**
194 **customers for a *potential* seasonal spread?**

195 A18. Since the Application is effectively a request for relief from its Tariff, neither
196 Duke directly or indirectly through its asset manager should receive
197 compensation. As for the customers, RESA would not object crediting back a
198 summer/winter differential. However, since the summer\winter differential would
199 be paid by CRNGS providers, and shopping customers may have their cost of
200 natural gas commodity service increased, the credit should go back to all
201 customers not just standard service customers.

202 **Q19. Assuming that the Commission was to calculate a fee that CRNGS**
203 **providers paid Duke to compensate for limited use of storage, how would**
204 **you structure it?**

205 A19. If the Commission were to decide that certain CRNGS providers using FBS
206 should pay a fee for the potential summer\winter differential of storage gas, it is
207 important that the amount be known in advance so that it can be incorporated
208 into fixed priced contracts. With that in mind I would suggest structuring a
209 potential summer\winter spread based upon historical seasonal NYMEX price
210 differentials between summer and winter. Looking at the last 18 years, the
211 differential, or spread, between the summer and winter NYMEX settle prices is
212 $0.21 (as shown in Ex. TS2). This could be charged to CRNGS providers based
213 on throughput into storage. It would not be appropriate for CRNGS providers to
214 pay a demand charge because my proposal provides CRNGS providers much
215 more limited storage rights than would otherwise exist under rate EFBS. For
216 example, under my proposal, CRNGS providers would be required to meet

217 deliveries in accordance with a predetermined schedule, without the flexibility to
218 inject or withdraw varying quantities of gas to meet fluctuations in demand.

219 **Q20. What timing considerations should the Commission consider when**
220 **implementing either Duke's application or your contingency plan?**

221 A20. One of our largest concerns in this proceeding is that Duke is proposing to
222 modify terms applicable to CRNGS providers without a holistic view of the
223 operation of its system. To make matters worse, it proposes to implement those
224 changes on an expedited basis. A more holistic and thorough view of Duke's
225 asset mix and balancing tariffs is likely to take place in Duke's upcoming Gas
226 Cost Recovery ("GCR") proceeding (Case No. 15-218-GA-GCR); however, it is
227 unlikely to be resolved by the January 15th balancing service election under the
228 tariff. Thus, to allow a more thorough review of this issue in the GCR
229 proceeding, I recommend that the Commission approve my proposal through the
230 2017-2018 gas year. Providing this certainty is critical to ensure that the
231 competitive market functions as it should and to allow CRNGS providers a
232 sufficient timeline for implementing any changes that may potentially be adopted.

233 **Q21. How does the timing of changes to the balancing service affect retail**
234 **customers?**

235 A21. Retail customers, often request long-term service contracts from CRNG CRNGS
236 providers at fixed prices. These contracts may not permit adjustment for the
237 change in the balancing fees.

238 **Q22. Why is the 2017-2018 timeframe important?**

239 A22. The Commission must consider the fact that the EFBS is in-part a storage
240 service. The interstate pipelines on which Duke holds storage rights have rules
241 on the minimum and maximum amount of gas that can be injected into storage or
242 withdrawn. The injection and withdraw schedules employ an annual design in
243 which the storage is more or less full at the start of the heating season and more
244 or less withdrawn (save for limited carryover options) at the end of the heating
245 season. For the storage season 2015-2016, the storage rights have been
246 allocated and CRNGS providers have contracted to bring supplies in. Further,
247 the cost of the service utilized in designing the current retail contracts are based
248 on the current tariff and supply arrangements. For the storage season 2016-
249 2017 arrangements and planning are under way now, and there are numerous
250 contracts which are based on the current tariff. Thus, a major change in the
251 balancing service should not commence until after 2017-2018 to allow for both a
252 careful examination of the options and so that CRNGS providers can rationally
253 plan for the change. In other words, the proposed increased cost was not
254 factored into current contracts and CRNGS providers may not have mechanisms
255 in those contracts to recover that cost.

256 **Q23. How would your proposal address the concern of Duke that the Company**
257 **has no way to manage storage balances without buying or selling gas on**
258 **the spot market?**

259 A23. My understanding of the problem articulated by Duke is that it may not have
260 enough GCR load to cycle through storage seasonally due to the amount of
261 customer migration to the Choice program and the lower levels of EFBS

262 elections by CRNGS providers. My proposal would give Duke increased
263 certainty as to the amount of load that would be available to cycle through
264 storage by guaranteeing that 9% of the total Firm Transportation and Residential
265 Firm Transportation ("FT/RFT") capacity requirement will be met with storage.
266 Should CRNGS providers elect EFBS in an amount less than the 9% threshold,
267 Duke would assign on a pro-rata basis a volume of storage that each CRNGS
268 provider with an MDQ over 1,000 must cycle through in the upcoming April
269 through March period. Duke would require CRNGS providers to deliver less than
270 the TSQ in the winter and more than the TSQ in the summer, causing storage
271 withdraws and injections to occur in the respective seasons.

272 **Q24. Will this proposal keep Duke from buying and selling gas in the spot**
273 **market?**

274 A24. This proposal will minimize the risk that Duke will have to sell supply in the spot
275 market due to not getting storage to the levels required by the storage providers
276 at the end of the season. This proposal is not designed to completely prevent
277 Duke from buying or selling gas in the spot market. As Mr. Kern has testified,
278 Duke holds an amount of storage that is adequate for balancing the system.
279 RESA is not taking a position in this case that Duke reduce the amount of
280 storage it holds. Duke should, therefore, have an adequate amount of storage to
281 balance the system, and with my proposal also have enough load to cycle
282 through the storage. Additionally, buying and selling in the spot market is not by
283 definition a bad thing. To avoid such purchases and sales would require
284 additional assets that would have to be paid for through the GCR. Duke has de-

285 contracted its FT capacity significantly over the last several years, presumably to
286 avoid overly burdening the GCR with demand charges.

287 **Q25. Do CRNGS providers have to buy gas in the spot market?**

288 A25. Yes, it is often necessary for CRNGS providers to purchase and sell gas on the
289 spot market to account for changes in customer demand. This is true for
290 CRNGS providers on the Duke system that have elected FBS and also for
291 CRNGS providers that have elected EFBS. Although rider EFBS allows CRNGS
292 providers to over- or under-deliver from the TSQ provided by Duke, there is not
293 an unlimited amount that the CRNGS providers can vary from the TSQ. The
294 EFBS program is designed to give over- and under-delivery rights that match
295 exactly the rights of the underlying interstate pipeline storage tariffs. These tariffs
296 limit the amount that may be injected or withdrawn on any given day. On many
297 days, these limits do not provide enough flexibility to keep CRNGS providers
298 from making spot purchases or sales. More extreme weather requires more spot
299 purchases and sales in order for CRNGS providers to stay within these limits to
300 avoid penalties.

301 **Q26. If the Commission does not adopt your proposal to allocate storage on a**
302 **pro rata basis, do you believe that that Commission should approve Duke's**
303 **proposal to require large CRNGS providers to take EFBS?**

304 A26. No, for several reasons, the Commission should reject Duke's proposal. First, it
305 would discriminate against large CRNGS providers and harm the competitive
306 market. Singling out larger suppliers and limiting their balancing options places

307 them at a competitive disadvantage and increases their operational burden
308 relative to other CRNGS providers. Indeed, Duke recognized at an earlier stage
309 of this case that its proposal is burdensome on CRNGS providers, stating "the
310 Company is requesting that the tariff be changed so that the largest suppliers
311 must be served under EFBS while maintaining a choice for mid-range suppliers
312 so as not to create any barriers to entry into the Choice program." Duke
313 Memorandum Contra at 4 (Feb. 9, 2015). Second, Duke has failed to identify why
314 it could not make EFBS mandatory for all suppliers with an MQD above 1,000
315 Dth. While RESA does not favor Duke's proposal to make EFBS mandatory, if
316 the Commission indulges Duke's request, it should at least do so in a manner
317 that does not discriminate against one class of CRNG providers to the detriment
318 of the competitive market.

319 **Q27. Are there any other changes the Commission should adopt if it accepts**
320 **Duke's proposal?**

321 A27. To the extent that the Commission modifies Duke's balancing tariffs, it must take
322 further action to mitigate the competitive disadvantage such an order would
323 cause to suppliers. As Mr. White testifies, the Commission can mitigate that
324 harm to some extent by unbundling and removing the existing subsidies to the
325 GCR that are embedded in distribution rates.

326 **VI. CONCLUSION**

327 **Q28 Does this complete your testimony?**

328 A28. Yes, although I reserve the right to supplement my testimony.

CERTIFICATE OF SERVICE

The Public Utilities Commission of Ohio's e-filing system will electronically serve notice of the filing of this document on the parties referenced on the service list of the docket card who have electronically subscribed to the case. In addition, the undersigned hereby certifies that a copy of the foregoing document is also being served (via electronic mail) on the 21st day of July 2015 upon the persons listed below.

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Min Election Threshold →			41,400						
Min. EFBS Election Threshold (MDDQ):			41,400	41,400	41,400	41,400	41,400	41,400	
Total Supplier EFBS Election (MDDQ):			0	20,000	30,000	0	20,000	30,000	
Remaining EFBS Allocation to FBS Supplier (MDDQ):			41,400	21,400	11,400	41,400	21,400	11,400	
Minimum MDQ for Supplier Allocation:			3,000	3,000	3,000	1,000	1,000	1,000	100% EFBS
Current FBS Supplier (ranked largest to smallest by MDQ)	Supplier MDQ								
A	132051	28.99%	12,871	6,653	3,544	12,464	6,442	3,432	40,500
B	89740	19.70%	8,747	4,522	2,409	8,470	4,378	2,332	27,000
C	48546	10.66%	4,732	2,446	1,303	4,582	2,368	1,262	15,300
D	32101	7.05%	3,129	1,617	862	3,030	1,566	834	9,900
E	22928	5.03%	2,235	1,155	615	2,164	1,119	596	7,200
F	21242	4.66%	2,071	1,070	570	2,005	1,036	552	7,200
G	20396	4.48%	1,988	1,028	547	1,925	995	530	6,300
H	19416	4.26%	1,893	978	521	1,833	947	505	6,300
I	9677	2.12%	943	488	260	913	472	252	3,600
J	7939	1.74%	774	400	213	749	387	206	2,700
K	7367	1.62%	718	371	198	695	359	191	2,700
L	6943	1.52%	677	350	186	655	339	180	2,700
M	6387	1.40%	623	322	171	603	312	166	2,700
N	5337	1.17%	520	269	143	504	260	139	1,800
O	4745	1.04%	463	239	127	448	231	123	1,800
P	3818	0.84%	372	192	102	360	186	99	1,800
Q	2479	0.54%	-	-	-	234	121	64	900
R	1974	0.43%	-	-	-	186	96	51	900
S	1933	0.42%	-	-	-	182	94	50	900
T	1825	0.40%	-	-	-	172	89	47	900
U	1749	0.38%	-	-	-	165	85	45	900
V	1641	0.36%	-	-	-	155	80	43	900
W	1280	0.28%	-	-	-	121	62	33	900
X	812	0.18%	-	-	-	-	-	-	-
Y	687	0.15%	-	-	-	-	-	-	-
Z	576	0.13%	-	-	-	-	-	-	-
AA	469	0.10%	-	-	-	-	-	-	-
BB	417	0.09%	-	-	-	-	-	-	-
CC	364	0.08%	-	-	-	-	-	-	-
DD	136	0.03%	-	-	-	-	-	-	-
EE	117	0.03%	-	-	-	-	-	-	-
FF	115	0.03%	-	-	-	-	-	-	-
GG	114	0.03%	-	-	-	-	-	-	-
HH	108	0.02%	-	-	-	-	-	-	-
II	1	0.00%	-	-	-	-	-	-	-
	455,430	100.00%							

Notes

MDDQ- EFBS Maximum Daily Delivery Quantity

MDQ- FRAS pool Maximum Daily Quantiy

Ex. TS2

	Monthly Settles	Averages		Spread
Apr-97	2.69			
May-97	2.05			
Jun-97	1.87			
Jul-97	2.14			
Aug-97	2.80			
Sep-97	3.49			
Oct-97	2.98	Summer	2.573	
Nov-97	2.44	Winter	2.096	-0.476
Dec-97	1.87			
Jan-98	1.88			
Feb-98	2.00			
Mar-98	2.29			
Apr-98	2.30			
May-98	2.26			
Jun-98	2.02			
Jul-98	2.36			
Aug-98	1.94			
Sep-98	1.67			
Oct-98	2.03	Summer	2.083	
Nov-98	1.97	Winter	1.872	-0.211
Dec-98	2.15			
Jan-99	1.77			
Feb-99	1.81			
Mar-99	1.67			
Apr-99	1.85			
May-99	2.35			
Jun-99	2.23			
Jul-99	2.26			
Aug-99	2.60			
Sep-99	2.91			
Oct-99	2.56	Summer	2.394	
Nov-99	3.09	Winter	2.552	0.159
Dec-99	2.12			
Jan-00	2.34			
Feb-00	2.61			
Mar-00	2.60			
Apr-00	2.90			
May-00	3.09			
Jun-00	4.41			
Jul-00	4.37			
Aug-00	3.82			
Sep-00	4.62			
Oct-00	5.31	Summer	4.074	
Nov-00	4.54	Winter	6.366	2.292
Dec-00	6.02			
Jan-01	9.98			

Feb-01	6.29			
Mar-01	5.00			
Apr-01	5.62			
May-01	4.89			
Jun-01	3.74			
Jul-01	3.18			
Aug-01	3.17			
Sep-01	2.41			
Oct-01	1.83	Summer	3.549	
Nov-01	3.20	Winter	2.493	-1.056
Dec-01	2.32			
Jan-02	2.56			
Feb-02	2.01			
Mar-02	2.39			
Apr-02	3.47			
May-02	3.32			
Jun-02	3.42			
Jul-02	3.81			
Aug-02	2.98			
Sep-02	3.29			
Oct-02	3.69	Summer	3.424	
Nov-02	4.13	Winter	5.609	2.185
Dec-02	4.14			
Jan-03	4.99			
Feb-03	5.66			
Mar-03	9.13			
Apr-03	5.15			
May-03	5.12			
Jun-03	5.95			
Jul-03	5.29			
Aug-03	4.69			
Sep-03	4.93			
Oct-03	4.43	Summer	5.079	
Nov-03	4.43	Winter	5.273	0.194
Dec-03	4.86			
Jan-04	6.15			
Feb-04	5.78			
Mar-04	5.15			
Apr-04	5.36			
May-04	5.94			
Jun-04	6.68			
Jul-04	6.14			
Aug-04	6.05			
Sep-04	5.08			
Oct-04	5.72	Summer	5.853	
Nov-04	7.63	Winter	6.881	1.028
Dec-04	7.98			

Jan-05	6.21			
Feb-05	6.29			
Mar-05	6.30			
Apr-05	7.32			
May-05	6.75			
Jun-05	6.12			
Jul-05	6.98			
Aug-05	7.65			
Sep-05	10.85			
Oct-05	13.91	Summer	8.510	
Nov-05	13.83	Winter	10.391	1.881
Dec-05	11.18			
Jan-06	11.43			
Feb-06	8.40			
Mar-06	7.11			
Apr-06	7.23			
May-06	7.20			
Jun-06	5.93			
Jul-06	5.89			
Aug-06	7.04			
Sep-06	6.82			
Oct-06	4.20	Summer	6.329	
Nov-06	7.15	Winter	7.155	0.826
Dec-06	8.32			
Jan-07	5.84			
Feb-07	6.92			
Mar-07	7.55			
Apr-07	7.56			
May-07	7.51			
Jun-07	7.59			
Jul-07	6.93			
Aug-07	6.11			
Sep-07	5.43			
Oct-07	6.42	Summer	6.793	
Nov-07	7.27	Winter	7.714	0.921
Dec-07	7.20			
Jan-08	7.17			
Feb-08	8.00			
Mar-08	8.93			
Apr-08	9.58			
May-08	11.28			
Jun-08	11.92			
Jul-08	13.11			
Aug-08	9.22			
Sep-08	8.39			
Oct-08	7.47	Summer	10.137	
Nov-08	6.47	Winter	5.605	-4.532

Dec-08	6.89			
Jan-09	6.14			
Feb-09	4.48			
Mar-09	4.06			
Apr-09	3.63			
May-09	3.32			
Jun-09	3.54			
Jul-09	3.95			
Aug-09	3.38			
Sep-09	2.84			
Oct-09	3.73	Summer	3.484	
Nov-09	4.29	Winter	4.936	1.451
Dec-09	4.49			
Jan-10	5.81			
Feb-10	5.27			
Mar-10	4.82			
Apr-10	3.84			
May-10	4.27			
Jun-10	4.16			
Jul-10	4.72			
Aug-10	4.77			
Sep-10	3.65			
Oct-10	3.84	Summer	4.178	
Nov-10	3.29	Winter	3.977	-0.201
Dec-10	4.27			
Jan-11	4.22			
Feb-11	4.32			
Mar-11	3.79			
Apr-11	4.24			
May-11	4.38			
Jun-11	4.33			
Jul-11	4.36			
Aug-11	4.37			
Sep-11	3.86			
Oct-11	3.76	Summer	4.184	
Nov-11	3.52	Winter	3.019	-1.165
Dec-11	3.36			
Jan-12	3.08			
Feb-12	2.68			
Mar-12	2.45			
Apr-12	2.19			
May-12	2.04			
Jun-12	2.43			
Jul-12	2.77			
Aug-12	3.01			
Sep-12	2.63			
Oct-12	3.02	Summer	2.585	

Nov-12	3.47	Winter	3.435	0.850	
Dec-12	3.70				
Jan-13	3.35				
Feb-13	3.23				
Mar-13	3.43				
Apr-13	3.98				
May-13	4.15				
Jun-13	4.15				
Jul-13	3.71				
Aug-13	3.46				
Sep-13	3.57				
Oct-13	3.50	Summer	3.787		
Nov-13	3.50	Winter	4.427	0.640	
Dec-13	3.82				
Jan-14	4.41				
Feb-14	5.56				
Mar-14	4.86				
Apr-14	4.58				
May-14	4.80				
Jun-14	4.62				
Jul-14	4.40				
Aug-14	3.81				
Sep-14	3.96				
Oct-14	3.98	Summer	4.307		
Nov-14	3.73	Winter	3.392	-0.915	
Dec-14	4.28				
Jan-15	3.19				
Feb-15	2.87				
Mar-15	2.89				
Apr-15	2.59				
May-15	2.52				
Jun-15	2.82				
Jul-15	2.77				
				0.215	18 Years

Ex. TS3

Duke Energy Ohio
Case No. 15-50-GA-RDR
IGS First Set of Interrogatories
Date Received: June 26, 2015

IGS-INT-01-012

REQUEST:

Provide a list of supplier MDQs for the system. The data should be anonymous and not reveal the identity of any specific supplier.

RESPONSE:

See table below for Maximum Daily Quantities (MDQ) as of June 17, 2015.

Supplier	MDQ
A	132,051
B	89,740
C	48,546
D	32,101
E	22,928
F	21,242
G	20,396
H	19,416
I	9,677
J	7,939
K	7,367
L	6,943
M	6,387
N	5,337
O	4,745
P	3,818
Q	2,479
R	1,974
S	1,933
T	1,825
U	1,749

V	1,641
W	1,280
X	812
Y	687
Z	576
AA	469
BB	417
CC	364
DD	136
EE	117
FF	115
GG	114
HH	108
II	1

PERSON RESPONSIBLE: Jeff L. Kern