REFERENCE:

PUB/Centra I-18(d); Exhibit IGU-8 Bowman Evidence p.10; IGU/Centra I-2(b) Attachment p.23; 2019/20 Centra GRA Appendix 9.3; 2012 Transportation and Storage Portfolio Application PUB/Centra 13(a) and Transcript page 151

PREAMBLE TO IR (IF ANY):

In the response to PUB/Centra I-8(d), Centra states: "Winter season demand in excess of summer season demand is a relative comparison of class contribution to the total winter excess demand where winter excess is calculated as the average winter load less the average summer load. For Centra that equates to the average monthly throughput for November through March (winter) minus the average monthly throughput for April through October (summer). Each customer class's winter excess is then compared to the total winter excess to derive the customer class share."

In his evidence at page 10, Mr. Bowman states: "The alternative approach identified by Atrium [winter season demand in excess of summer season demand] appears to therefore be an inferior approach in terms of fairness and tracking cost causation, in that it only appears to track the first of the two factors noted above – that is the method would assign more of annual cost to customer classes whose loads peak in winter, but it would not assign the premium prices associated with serving those loads to the customers who drive the peaks. The alternative approach is also inferior in that it is a measure of average usage over four winter months, as compared to the average usage over the remaining eight months[29]. In order to meet acute system needs on key supply days, which are disproportionately driven by only certain customer classes, added costs must be incurred for pipeline capacity. A measure of average usage over 4 months will fail to capture this more acute cost driver. As such, the alternative is at best a coarse approximation of the costs driven by differentiated seasonal use." [emphasis added]

In the response to IGU/Centra I-2(b) Attachment page 23, Centra shows the proposed Cost of Gas allocators:

Account Description	Account Code	Functional Allocator	Classification Allocator	Demand Allocator	Energy Allocator	Customer Allocator
COST OF SERVICE DETAILS						
I. COST OF GAS						
A. FIXED COSTS						
TCPL FS Demand - Sask Zone		PIPE	-	-	-	-
TCPL STS Demand		PIPE	-	-	-	-
NGTL		PIPE				
[redacted]		PIPE	-	-	-	-
TCPL Firm Service - Emerson to Man Zone		PIPE	-	-	-	-
TCPL FS Demand - Man Zone		PIPE	-	-	-	-
Other Pipeline Fixed Tolls		PIPE	-	-	-	-
ANR Storage Deliverability		STOR	-	-	-	-
ANR Joliet to Storage Winter		STOR	DEMAND	~~PAVG~~ WINTEXC	-	-
ANR Crystal Falls from Storage		STOR	DEMAND	~~PAVG~~ WINTEXC	-	-
GLGT Storage to Deward		STOR	DEMAND	~~PAVG~~ WINTEXC	-	-
Seasonal Storage Capacity		STOR	DEMAND	~~PAVG~~ WINTEXC	-	-
Seasonal Storage Deliverability		STOR	DEMAND	~~PAVG~~ WINTEXC	-	-
Annual Storage Capacity		STOR	DEMAND	~~PAVG~~ WINTEXC	-	-
Annual Storage Deliverability		STOR	DEMAND	~~PAVG~~ WINTEXC	-	-
ANR Joliet to Storage Summer		STOR	DEMAND	~~PAVG~~ WINTEXC	-	-
ANR Crystal Falls to Storage		STOR	DEMAND	~~PAVG~~ WINTEXC	-	-
GLGT Emerson to Crystal Falls		STOR	DEMAND	~~PAVG~~ WINTEXC	-	-
Forecast Capacity Management Revenues		PIPE	-		-	-
Sub-total						
B. VARIABLE TRANSPORTATION						
TCPL FS - Sask Zone		PIPE	-	-	-	-
TCPL FS - Flowing directly to Man Zone		PIPE	-	-	-	-
TCPL FS - SSDA (Welwyn)		PIPE	-	-	-	-
Primary Gas Delivered Service		PIPE	-	-	-	-
GLGT Storage Transportation		STOR	ENERGY	-	COMWINT	-
ANR Storage Transportation		STOR	ENERGY	-	COMWINT	-
ANR Storage Withdrawl Chg.		STOR	ENERGY	-	COMWINT	-
Storage Gas - Transportation & Delivery Cost		STOR	ENERGY	-	COMWINT	-
Compressor Fuel TCPL SSDA		PROD	-	-	-	-
Compressor Fuel ~~P~~ AECO (Empress)		~~PROD~~	-	-	-	-
Compressor Fuel Emerson		STOR	ENERGY	-	COMWINT	-
Compressor Fuel TCPL SSDA (Welwyn) to MDA		PROD	-	-	-	-
Compressor Fuel Oklahoma		STOR	-	-	-	-
Compressor Fuel Storage & Supplemental US Supplies		STOR	ENERGY	-	COMWINT	-
Sub-total						

Appendix 9.3 from the 2019/20 Centra GRA lists the individual contracts of the current Transportation and Storage portfolio which took effect April 1, 2020.

In the response to PUB/Centra 13(a) from the 2012 Transportation and Storage Portfolio Application, Centra stated: "The peak day requirements on Centra's system drive winter deliverability requirements for all pipelines needed to transport storage gas to the Centra service territory."

On page 151 of the June 25, 2012 transcript from the 2012 Transportation and Storage Portfolio Application, Centra's witness states: *"But from an operator's perspective, once we've drawn down storage levels to 20 percent, so there's only 3.1 PJs in our facility again, I'm into ratchets, which means that now I can't pull the same amount of gas out of storage as what I've been relying on from a planning perspective. And that's that daily deliverability number. So once I've drawn down the capacity to 20 percent, then I start to lose deliverability, and that means that then I'm exposed to buying in the day market and moving gas potentially on an interruptible transportation path, which makes me feel pretty uncomfortable in February and*

March. So when we are talking about the notion of storage, you've heard my colleagues suggest that the objective is not to draw down storage to zero, because I will have blown through all of my ratchets, and I'm out scrambling to find gas in the latter part of the winter, which is not the modus operandi that a utility should be in."

QUESTION:

a) File Appendix 9.3 from the 2019/20 GRA.

b) Reconcile the cost of gas elements in IGU/Centra I-2(b) Attachment page 23 with the ANR and GLGT contract elements shown in Appendix 9.3 (as not all of the names or descriptions align). Identify which of the TCPL STS, ANR, and Great Lakes Gas Transmission cost of gas elements listed on page 23 of the Attachment to IGU/Centra I-2(b) are part of the current transportation and storage portfolio (as opposed to the portfolio which expired March 31, 2020) and identify any additional cost of gas elements applicable to the current portfolio that are not listed.

c) Identify which of the TCPL STS, ANR, and Great Lakes Gas Transmission cost of gas elements (i.e. ANR, and GLGT individual contracts) had capacities which were sized or selected based on meeting Centra's peak day requirements (as explained by Centra in the response to PUB/Centra 13(a) from the 2012 Transportation and Storage Portfolio Application proceeding), as opposed to being sized in order to have sufficient capacity for the entire winter withdrawal season.

d) Explain whether Coincident Peak would be a more appropriate allocator than WINTEXC for the costs of each of the TCPL STS, ANR, and GLGT contracts that were sized or selected to meet Centra's peak day requirements.

e) If some elements of the storage and transportation portfolio were sized to meet Centra's peak day requirements which exclude serving the Interruptible class loads, explain whether it is appropriate to allocate these costs to the Interruptible class.

f) Confirm whether the current ANR storage capacity was sized in order to ensure that ratchets (which reduce the amount of gas Centra can pull from storage each day) will not affect Centra's ability to meet its peak day demand. If confirmed, explain whether Coincident Peak would be a more appropriate allocator WINTEXC for ANR storage capacity costs.

g) Provide a table comparing the class allocation percentages for the PAVG, Coincident Peak, and WINTEXC allocators. If the response to (c) is that there is merit in allocating some of the storage costs on the basis of Coincident Peak, then add a line to the table showing the dollar-weighted class allocation percentages for the storage costs (i.e. the Storage function dollar-weighted average of Coincident Peak and WINTEXC).

RESPONSE:

a) Please see Attachment 1 to this response.

b) Please see Attachment 2 to this response.

c) Centra notes that the response to PUB/CENTRA 13 a) from the 2012 Transportation and Storage Portfolio Application proceeding was provided by ICF in relation to which modeling assumptions drove certain ICF model results and do not relate to Centra's current portfolio. For example, ICF stated that "The optimum level of pipeline capacity required to fill ANR storage depends on the level of storage deliverability" – which is a reference to three modeling scenarios (50, 60, and 70-day storage) selected by ICF for modeling purposes. In practice, however, storage *capacity* drives the requirement for summer transportation capacity to storage, not the level of daily deliverability from storage or Centra's peak day.

In turn, storage capacity is driven by seasonal volume requirements (i.e., customer demand over the entirety of winter). Daily storage deliverability and winter transportation play an important role in serving a range of daily customer demand in winter but Centra's maximum daily withdrawal quantity ("MDWQ") from storage [redacted] Accordingly, the ANR/GLGT/STS portfolio contributes to meeting Centra's peak day requirements, [redacted] 1c 1c

[redacted] and the cost of the portfolio is not driven by a limited number of key supply days (as suggested by Mr. Bowman's evidence[1]).

Centra's 2013 and 2020 ANR/GLGT portfolios further demonstrate the relative importance of storage capacity and the MDWQ. The 2013 portfolio included storage capacity of 15.5 million GJ[2] and a MDWQ of 217.8 TJ/day. In Centra's current (2020) portfolio, the storage capacity is 16.5 million GJ while the MDWQ declined to 206.7 TJ/day, despite [redacted] and a lower MDWQ. 1c

Centra therefore concludes:

- All summer transportation contracts related to storage injections are sized based on filling the majority of the total storage capacity, to ensure sufficient volumes are injected to meet winter volume requirements.

- The sizing of the ANR storage contract was [redacted] The storage capacity accommodates seasonal needs. The storage deliverability accommodates a range of daily demand in winter which ultimately accommodates seasonal volume needs. The MDWQ contributes to meeting peak day but was reduced in the 2020 portfolio and is [redacted] 1c

- Winter transportation contracts are used to deliver winter volumes, helping to meet a range of daily winter demand and ultimately seasonal volume needs. Similar to storage deliverability, these contracts also contribute to meeting peak day [redacted] 1c

[1] As noted in the preamble to this series of questions.
[2] The storage capacity was originally contracted for effective April 1, 2013. Centra increased this capacity to 16.5 million GJ in 2016.

Centra considers both its seasonal and peak day requirements when determining its winter transportation capacity and storage deliverability. Summer transportation capacity and storage capacity are driven by seasonal volume needs.

d) As noted in the response to part c), Centra considers both seasonal and peak day requirements when contracting its storage portfolio. As such, Centra does not believe that Coincident Peak would be a more appropriate allocator for any of the specific components. Centra does note that a different allocator for the new ANR and GLGT transportation from storage contracted for April and October was analyzed as a potential refinement, but the results of the analysis, as noted below, determined that a separate allocator would not impact the allocation results. For the purposes of illustrating the potential refinement, Centra looked at both an April & October average in excess of summer average; as well as a March & November average in excess of summer average (please see Attachment 3 to this response). Given Centra's use of a weather normalized load forecast the April / October metric likely understates the excess over average usage that would underlie the use of storage in said months. As a result, a March & November metric was also developed to get a sense of the order of magnitude difference. As demonstrated by comparing the April / Oct, March / November and WINTEXCESS allocators, and given the materiality of the costs, Centra contends that the refinement is not required as the impact will be indiscernible.

e) As discussed in parts c) and d), the storage and transportation portfolio contributes to serving both seasonal and peak day requirements [redacted] and the cost of the portfolio is not driven by a limited number of key supply days. Accordingly, it is appropriate that Interruptible customers contribute to covering storage and related pipeline capacity costs but are exempt from covering year-round pipeline capacity costs. 1c

f) Not confirmed. [redacted] Accordingly, WINTEXC is the appropriate allocator for ANR storage capacity costs. 1c

g) Please see Attachment 4 to this response.

Appendix 9.3 - Rates, Capacity, and Costs

		Current ANR/GLGT Portfolio			Proposed ANR/GLGT Portfolio			
ANR Storage - Seasonal	Tariff Rate (USD/Dth)	Rate (USD/Dth)	Capacity (Dth)	Cost (USD)	Rate (USD/Dth)	Capacity (Dth)	Cost (USD)	Capacity (GJ)
Capacity	0.40	0.286	8,625,135	2,466,789	N/A	N/A	N/A	N/A
Deliverability	2.04	1.60	89,400	1,716,480	N/A	N/A	N/A	N/A
ANR Storage - Annual								
Capacity	0.40	0.3125	7,013,846	2,191,827	0.237	15,638,980	3,706,438	16,500,000
Deliverability	2.45	1.60	117,000	2,246,400	1.751	195,885	4,115,936	206,670
Storage totals - Capacity			15,638,981			15,638,980		16,500,000
- Deliverability			206,400			195,885		206,670
- Cost				8,621,495			7,822,374	
ANR Transportation								
Crystal Falls to storage (summer)	5.729	3.925	50,200	1,379,245	5.729	50,200	2,013,171	52,964
Joliet area to storage (summer)	5.729	3.925	7,000	192,325	5.729	10,000	401,030	10,551
Storage to Deward (winter)	5.729	0.304	204,363	310,632	0.304	193,943	294,793	204,621
Joliet area to storage (winter)	5.729	0.304	40,000	60,800	N/A	N/A	N/A	N/A
Storage to Deward (April)	5.729	N/A	N/A	N/A	0.304	40,000	12,160	42,202
Storage to Deward (October)	5.729	N/A	N/A	N/A	0.304	20,000	6,080	21,101
GLGT Transportation								
Emerson to Crystal Falls (summer)	4.68	3.042	50,500	1,075,347	4.65	50,500	1,643,775	53,280
Deward/Farwell to Emerson (winter)	8.353	2.28	224,363	2,557,738	2.60	155,962	2,027,506	164,549
Deward/Farwell to Emerson (winter)	8.353	N/A	N/A	N/A	3.194	77,981	1,245,259	82,274
Deward/Farwell to Emerson (April)	8.353	N/A	N/A	N/A	2.60	40,000	104,000	42,202
Deward/Farwell to Emerson (October)	8.353	N/A	N/A	N/A	2.60	20,000	52,000	21,101
Annual reservation costs:				14,197,582			15,622,148	

STS, ANR, GLGT

COS - Schedule IGU-Centra 2b	Item from Appendix 9.3	Notes
A. FIXED COSTS		
TCPL STS Demand		
ANR Storage Deliverability		Not part of April 2020 portfolio
ANR Joliet to Storage Winter	ANR Joliet area to storage (winter)	No longer included in portfolio effective April 2020
ANR Crystal Falls from Storage	ANR Storage to Deward (winter)	
	ANR Storage to Deward (Apr / Oct)	New transportation commencing April 2020
GLGT Storage to Deward	GLGT Deward/Farwell to Emerson (winter)	
	GLGT Deward/Farwell to Emerson (Apr / Oct)	New transportation commencing April 2020
Seasonal Storage Capacity	ANR Seasonal Storage Capacity	No longer included in portfolio effective April 2020
Seasonal Storage Deliverability	ANR Seasonal Storage Deliverability	No longer included in portfolio effective April 2020
Annual Storage Capacity	ANR Annual Storage Capacity	
Annual Storage Deliverability	ANR Annual Storage Deliverability	
ANR Joliet to Storage Summer	ANR Joliet area to Storage (summer)	
ANR Crystal Falls to Storage	ANR Crystal Falls to Storage (summer)	
GLGT Emerson to Crystal Falls	GLGT Emerson to Crystal Falls (summer)	

From PUB-Centra II-1 Attachment 1	Cost (USD)
Storage to Deward (April)	12,160
Storage to Deward (October)	6,080
Deward/Farwell to Emerson (April)	104,000
Deward/Farwell to Emerson (October)	52,000
Total	$ 174,240

	SGS - Res	SGS - Com	Total SGS	LGS	High Volume Firm	Cooperative	Mainline Sales	Interruptible Sales
Apr	[redacted]							
May								
June								
July								
Aug								
Sept								
Oct								
Nov								
Dec								
Jan								
Feb								
Mar								
Summer Average								

1d

	Total
Average April & Oct	[redacted]
Apr/Oct Excess	
Apr/Oct Excess	
Total Dollars Allocated (USD)	
Average Mar & Nov	
Mar/Nov Excess	
Mar/Nov Excess	
Total Dollars Allocated (USD)	
Winter Average	
Winter Excess	
Winter Excess	
Total Dollars Allocated (USD)	

1d

1d

Allocation Factor	Residential SGS-R	Small Commercial SGS-C	Small Gen. Service SGS-Total	Large Gen Service LGS	High Volume HVF	Cooperative CO-OP	Main Line ML	Special Contracts SC	Power Stations GS	Interruptible INT	Total	
PAVG	[redacted]											1d
PDAY												1d
PDAY (INT)*												1d
WINTEXC												1d

**Coincident Peak Day excluding Interruptible class*