

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Request of)	
Dominion Energy Utah for Approval)	Docket No. 18-057-03
of a Voluntary Resource Decision to)	
Construct an LNG Facility)	

DIRECT TESTIMONY OF

BELA VASTAG

FOR THE

OFFICE OF CONSUMER SERVICES

AUGUST 16, 2018

1 **Q. WHAT IS YOUR NAME, BUSINESS ADDRESS AND OCCUPATION?**

2 A. My name is Béla Vastag. My business address is 160 East 300 South Salt
3 Lake City, Utah 84111. I am a Utility Analyst for the Utah Office of
4 Consumer Services (Office).

5 **Q. PLEASE DESCRIBE YOUR EDUCATION AND WORK EXPERIENCE.**

6 A. I have a Bachelor of Science degree in physics with a minor in mathematics
7 from Virginia Tech and a Master of Science degree in finance from the
8 University of Utah. I have worked for the Office for the past 8 years and
9 have filed testimony and memoranda in numerous electric and natural gas
10 proceedings before the Utah Public Service Commission. Prior to joining
11 the Office, I held positions as a Data Analyst for the Utah State Board of
12 Education, as a Financial Manager for the Utah State Library and as a
13 Budget and Revenue Analyst for the Salt Lake City Department of Airports.

14 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

15 A. I will introduce the additional witnesses testifying on behalf of the Office and
16 provide the Office's overall recommendation. I will also discuss why the
17 Office finds Dominion Energy Utah's (DEU or Company) filing, i.e. its
18 request for approval of a resource decision to construct an LNG facility, to
19 be inadequate.

20 **Q. PLEASE INTRODUCE THE OFFICE'S ADDITIONAL WITNESSES.**

21 A. Alex Ware, a Utility Analyst for the Office, and Jerome D. Mierzwa of the
22 firm of Exeter Associates have also prepared direct testimony on behalf of
23 the Office in this proceeding. Mr. Ware reviews the regulatory history which

24 shows how the Company has failed to identify for regulators the need for an
25 LNG facility to address reliability concerns. Mr. Mierzwa provides an
26 overview of the Company's LNG proposal and its cost, discusses typical
27 gas industry practices for supply reliability and LNG facilities, examines
28 whether DEU has properly evaluated all alternatives to constructing an LNG
29 facility, shows how DEU's current system is very resilient in addressing gas
30 supply shortages and avoiding outages and concludes that if an LNG facility
31 is constructed, transportation customers should share in its cost.

32 **Q. WHAT IS THE OFFICE'S OVERALL RECOMMENDATION ON THE**
33 **COMPANY'S REQUEST FOR RESOURCE DECISION APPROVAL?**

34 A. The Office cannot support the Company's decision to construct an LNG
35 facility to address supply reliability, i.e. to address potential supply shortfalls.
36 The Office recommends that the Utah Public Service Commission
37 (Commission) deny the Company's request for approval of a resource
38 decision to construct an LNG facility. On the DEU system, no outages have
39 occurred from supply shortfalls. A very high degree of due diligence should
40 be required from the Company before committing ratepayers to a new and
41 very expensive resource to address potential outages. As the Commission
42 stated on page 9 of its July 13, 2018 Order in Docket No. 17-057-20: "We
43 expect that a reasonable utility would perform a higher degree of due
44 diligence in creating defensible modeling practices for a large expense than
45 it would perform for a smaller expense."

46 The Office believes that the Company has not clearly demonstrated
47 that an LNG plant is needed to address potential gas outages due to supply
48 disruptions. The Company's evidence and analysis are inadequate.

49

50 **Q. WHY DOES THE OFFICE BELIEVE THAT THE COMPANY'S DUE**
51 **DILIGENCE IS INADEQUATE?**

52 A. The Company's actions and filings have not provided sufficient evidence of
53 the existence of a supply reliability problem or that an LNG facility is the
54 best long-term solution to potential future supply disruptions. These
55 shortcomings include 1) poor evidentiary support in identifying a supply
56 reliability problem in this filing, 2) lack of evidence for both the reliability
57 problem and the proposed LNG facility in the Company's previous
58 regulatory filings, and 3) insufficient system analysis and development of all
59 possible solutions to address future supply disruptions. Mr. Ware discusses
60 item number two in his testimony and Mr. Mierzwa discusses item number
61 three. I will discuss shortcoming number one.

62 **Q. IN ITS APPLICATION, THE COMPANY HAS ATTEMPTED TO JUSTIFY**
63 **THE NEED FOR AN LNG FACILITY. DOES THE OFFICE BELIEVE THAT**
64 **THE EVIDENCE SUBMITTED BY THE COMPANY IS SUFFICIENT TO**
65 **ENABLE THE COMMISSION TO APPROVE THIS RESOURCE**
66 **DECISION?**

67 A. No, the Company has provided poor evidentiary support. The Company
68 attempts to use the construction of an Arizona LNG facility and recent
69 histories of DEU system supply disruptions and outages as evidence of

70 need for the proposed LNG facility in the Salt Lake Valley. However, none
71 of this evidence convincingly demonstrates that such an LNG facility is
72 needed now. The Company also does not adequately address risks
73 associated with siting an LNG plant in the Salt Lake Valley. In addition, the
74 Office is concerned that guidance from DEU's corporate parent, Dominion
75 Energy, is a factor in the Company's decision to pursue an LNG plant.

76

77 **The 2011 outage in Arizona is not comparable to DEU's situation**

78 **Q. THE COMPANY USES AN EXAMPLE FROM ANOTHER GAS UTILITY**
79 **WHERE COLD WEATHER CAUSED SUPPLY DISRUPTIONS AND**
80 **OUTAGES. THE UTILITY THEN RECEIVED APPROVAL TO**
81 **CONSTRUCT AN LNG FACILITY. WHAT UTILITY WAS INVOLVED AND**
82 **WHAT WERE THE CIRCUMSTANCES?**

83 A. in February 2011, local distribution companies (LDCs) in Texas, New
84 Mexico and Arizona, including New Mexico Gas Company and Southwest
85 Gas, experienced the loss of gas service to more than 50,000 customers
86 due to reduction in gas supplies caused by record setting cold
87 temperatures. In response to a loss of service to 19,000 of its customers in
88 Tucson, Arizona, Southwest Gas received approval from its state
89 commission in December 2014 to construct an on-system LNG facility near
90 Tucson, projected to be in-service by the end of 2019. The decision to
91 pursue an LNG plant came after years of investigations into the reliability
92 problem and into possible solutions.

93 **Q. DOES THE OFFICE BELIEVE THAT THIS EXAMPLE IS COMPELLING**
94 **EVIDENCE SUPPORTING THE NEED FOR DEU TO CONSTRUCT AN**
95 **LNG FACILITY FOR ITS SYSTEM?**

96 A. No. Southwest Gas and DEU's systems are configured and operated
97 differently; and therefore, Southwest Gas' situation is not analogous to
98 DEU's. For example¹:

- 99 • The decision to pursue an LNG plant in Arizona was made after
100 first attempting to develop a traditional underground storage
101 facility in Arizona. Southwest Gas does not have local storage on
102 or close to its system. DEU already has service from 5 relatively
103 close underground storage facilities.
- 104 • Southwest Gas relies exclusively on El Paso Natural Gas
105 interstate pipeline to deliver gas to Tucson from the Permian and
106 San Juan Basins. DEU is connected directly to two interstate
107 pipelines and receives gas supplies from several different areas
108 or basins.
- 109 • Storage services for shippers on El Paso are located in Texas –
110 about 700 miles away from the Tucson distribution system.
111 DEU's five storage facilities are relatively close. Clay Basin is
112 about 200 miles away, Ryckman 95 miles and the three aquifer
113 storage facilities between 40 and 80 miles. Three of these

¹ See DEU Exhibit 2.14, Southwest Gas Corporation's application for approval of an LNG facility, application pages 4 & 6.

114 facilities are located in Utah with the other two near the Utah
115 border in Wyoming.

116 **Q. DOES THE OFFICE BELIEVE THE OUTAGE IN TUCSON IN 2011 IS**
117 **ADEQUATE EVIDENCE TO JUSTIFY DEU'S NEED FOR AN LNG**
118 **FACILITY?**

119 A. No. While the Office acknowledges that gas shortfalls can occur due to cold
120 weather, DEU has not presented an analysis that adequately compares its
121 upstream and local distribution systems to those in Texas, Arizona and New
122 Mexico that experienced an outage due to the cold weather event. It is not
123 adequate to simply say that because two LDCs experienced service
124 outages because of cold weather that DEU would also experience a similar
125 event. It is necessary for regulators to be fully informed and assess whether
126 there are differences in DEU's infrastructure and/or gas supply sources.
127 These differences may include the existence for DEU of many diverse
128 alternatives in accessing gas supplies and upstream infrastructure
129 redundancies that can ensure the delivery of gas supplies that could
130 insulate the Company from a similar cold weather event, before the need
131 for an LNG facility can be justified. It is DEU's burden to conduct such
132 analysis and present it to its regulators before such an LNG facility should
133 be approved.

134 **Q. DID REGULATORS INVESTIGATE THE COLD WEATHER EVENT IN**
135 **2011 WHICH CAUSED GAS OUTAGES IN ARIZONA, NEW MEXICO**
136 **AND TEXAS?**

137 A. Yes. The Federal Energy Regulatory Commission (FERC) and the North
138 American Electric Reliability Corporation (NERC) issued a joint report in
139 August 2011 outlining their findings and recommendations following the
140 cold weather event in Arizona, New Mexico, and Texas. FERC and NERC
141 presented 12 key findings and 6 recommendations for the natural gas
142 industry.

143 **Q. WHAT ARE THE RECOMMENDATIONS FOR THE NATURAL GAS**
144 **INDUSTRY FROM THE FERC/NERC REPORT?**

145 A. While the report does state in one of its key findings that “additional gas
146 storage capacity in Arizona and New Mexico could have prevented many of
147 the outages”² experienced during the 2011 cold weather event in the
148 Southwest, it is remarkable that the FERC/NERC report does not
149 specifically recommend building additional storage. Instead,
150 recommendations encompass these six areas:³

- 151 1. Implementation of uniform winterization standards for gas
152 production facilities
- 153 2. Exemption of critical natural gas facilities from rolling electrical
154 blackouts
- 155 3. Development of voluntary curtailment plans that can reduce
156 demand quickly and efficiently
- 157 4. Development of plans as to whether residential gas or electrical
158 generation customers should receive priority during an
159 emergency
- 160 5. Determination of how local distribution systems can be improved
161 to increase flows to handle periods of historically high demand

² FERC/NERC Staff Report on the 2011 Southwest Cold Weather Event, pages 212 – 213.
Report can be found: <https://www.ferc.gov/legal/staff-reports/08-16-11-report.pdf>

³ Ibid, pages 214 - 217.

162 6. Determination of how local distribution systems can be improved
163 to implement curtailments that speed up system recovery after an
164 outage or emergency

165

166 **Q. IF THE FERC/NERC REPORT DID NOT SPECIFICALLY RECOMMEND**
167 **GAS STORAGE, WHY DID THE ARIZONA CORPORATION**
168 **COMMISSION APPROVE THE CONSTRUCTION OF AN LNG PLANT?**

169 A. A review of the documents associated with the cold weather event, including
170 hearings held by the Arizona Corporation Commission, indicates that
171 officials noted numerous times that Arizona did not have access to any in-
172 state storage facilities prior to the cold weather event. The documents also
173 indicate that discussions in Arizona soon after the event originally centered
174 around the creation of a salt cavern storage facility. A salt cavern storage
175 facility in Arizona was not pursued at the time due to public and legislative
176 opposition, uncertainties regarding brine disposal and difficulties
177 demonstrating cost-effectiveness⁴. However, when Southwest Gas came
178 before the Arizona Commission in October 2016 asking to increase the cost
179 of its new LNG plant by 60%, from \$50 million to \$80 million, Arizona
180 Commission Staff, recommended that Southwest Gas pause the LNG
181 project and investigate two developing underground storage facilities in
182 Arizona instead, because these storage facilities would be cheaper and
183 provide better deliverability than the proposed LNG facility.⁵

⁴ Arizona Corporation Commission, Docket No. G-01551A-14-0024, December 23, 2014 Order, pages 2 – 3. See: <http://images.edocket.azcc.gov/docketpdf/0000159385.pdf>.

⁵ Arizona Corporation Commission, Docket No. G-01551A-14-0024, January 3, 2017 Order. See: <http://docket.images.azcc.gov/0000176126.pdf>.

184 **Q. DOES DEU CURRENTLY HAVE ACCESS TO ANY LOCAL GAS**
 185 **STORAGE FACILITIES?**

186 A. Yes, as discussed above DEU reports they currently have contracted
 187 access and use of five different storage facilities, with three of these facilities
 188 located in Utah (OCS 2.12).⁶

189

190 **The proposed LNG facility would not have prevented past outages on DEU's**
 191 **system**

192 **Q. IN ITS TESTIMONY, THE COMPANY SPECIFICALLY DISCUSSES THE**
 193 **PROBLEMS THAT OCCURRED WITH THE RECENT JANUARY 2017**
 194 **OUTAGE IN COALVILLE.⁷ WOULD THE COMPANY'S PROPOSED LNG**
 195 **FACILITY HAVE PREVENTED THE COALVILLE OUTAGE?**

196 A. No. The proposed LNG plant would be located in the Salt Lake Valley and
 197 not have any direct means to flow gas to the city of Coalville.

198 **Q. IN THE PAST 20 YEARS, HAS THE COMPANY REPORTED ANY OTHER**
 199 **OUTAGES SIMILAR TO THE COALVILLE INCIDENT?**

200 A. In response to DPU 1.12⁸, the Company stated that in the last 20 years,
 201 there were four outages in addition to Coalville:

Date	Location
1/6/2017	Coalville
10/31/2013	Monticello
~8/8/2011	Glendale
~12/15/2010	Saratoga
2008	Ogden Valley

⁶ A copy of DEU response to OCS discovery request 2.12 can be found in Vastag Exhibit 1.1

⁷ Direct Testimony of Michael L. Platt, page 9.

⁸ A copy of DEU response to DPU discovery request 1.12 can be found in Vastag Exhibit 1.1

202 **Q. WOULD THE OUTAGES THAT OCCURRED IN MONTICELLO,**
203 **GLENDALE, SARATOGA OR OGDEN VALLEY HAVE BEEN**
204 **PREVENTED BY THE COMPANY'S PROPOSED LNG FACILITY?**

205 A. No, in response to OCS 2.17⁹, the Company states: "The proposed LNG
206 plant in Magna would not have prevented these outages, many of which
207 were on small isolated systems." Also, the response indicates that none of
208 these outages were caused by a supply shortfall. As Mr. Mierzwa explains
209 in his testimony, the system feeding gas to DEU's Wasatch Front demand
210 area is not a "small isolated system" but a large, resilient system capable of
211 responding to disruptions.

212

213 **Supply shortfalls have not caused any outages on DEU's system**

214 **Q. ON SLIDE 11 OF THE JUNE 19, 2018 TECHNICAL CONFERENCE, THE**
215 **COMPANY PLOTTED THE SUPPLY CUTS THAT HAVE OCCURRED**
216 **DURING THE LAST 7 HEATING SEASONS. ARE THESE SUPPLY CUTS**
217 **EVIDENCE THAT AN LNG PLANT IS NEEDED?**

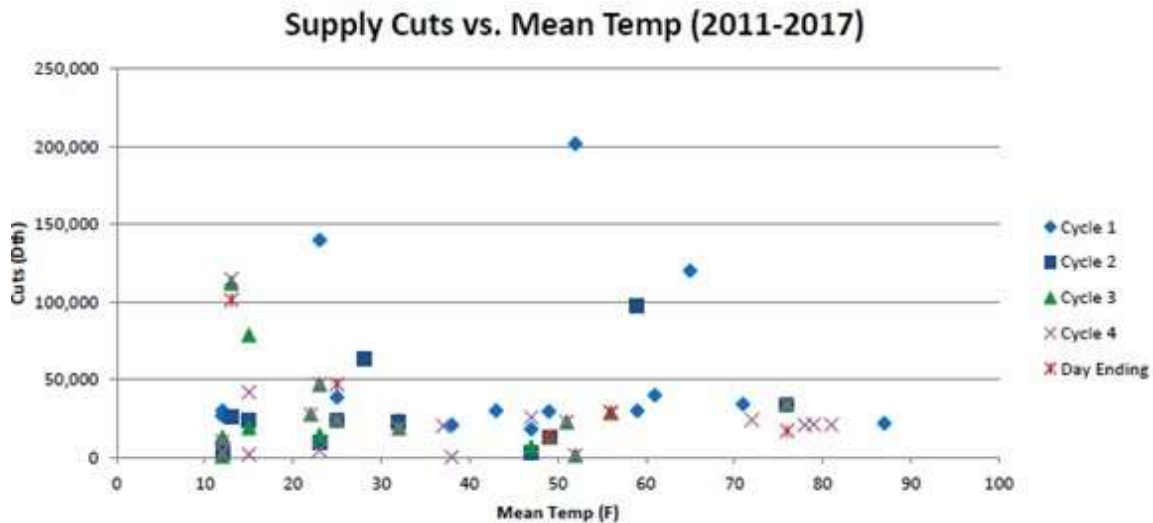
218 A. No. In response to DPU 4.01¹⁰, the Company stated that none of these
219 supply cuts resulted in outages. Below is a copy of the chart from Slide 11.
220 As one can see, supply cuts are fairly common both in cold and warm
221 weather. In its response to DPU 4.01, the Company also stated that it
222 primarily relied on its storage services to resolve these supply cuts.

⁹ A copy of DEU response to OCS discovery request 2.17 can be found in Vastag Exhibit 1.1.

¹⁰ A copy of DEU response to DPU discovery request 4.01 can be found in Vastag Exhibit 1.1.

223 However, the Company claims that if supply cuts occurred on a Design Day,
 224 its storage facilities would not be available to cover them.

225



226

227 **Q. HOW DOES THE OFFICE RESPOND TO THE COMPANY'S CONCERN**
 228 **ABOUT SUPPLY CUTS OCCURRING ON A DESIGN DAY?**

229 A. As Mr. Mierzwa explains in his testimony, the last time the Company's
 230 Wasatch Front system experienced Design Day conditions was in 1963.
 231 The chart above shows supply cuts occurring in both warm and cold
 232 conditions. The chart actually appears to indicate that the chance of a very
 233 large cut occurring on a Design Day is very small; and therefore, the chart
 234 does not provide evidence that the Company needs an LNG plant.

235

236 **The proposed LNG facility is not a risk-free solution to potential supply**
 237 **reliability problems**

238 **Q. DOES THE COMPANY DEMONSTRATE THAT THE LNG FACILITY**
 239 **WOULD BE A ROBUST SOLUTION TO SUPPLY RELIABILITY RISKS?**

240 A. In her direct testimony, Tina Faust lists these risks to supply reliability: cold
241 weather related well freeze offs and processing plant interruptions,
242 instances of pipeline repair and maintenance, landslides, earthquakes, and
243 other unanticipated events.¹¹ The majority of these factors would still pose
244 a risk to an LNG plant located in the SL Valley. Earthquakes, pipeline
245 damage, repair and maintenance issues and “other unanticipated events”
246 are still a risk.

247 In addition, if supply disruptions were to occur, it is unknown if the
248 LNG plant’s proposed output, 150,000 Dth/day for 8 days, will be sufficient.
249 The Company claims in response to OCS 2.24¹² that a capacity of 150,000
250 Dth/day for the LNG plant was chosen because it “is representative of the
251 shortfalls the Company has seen on the system over the past few years.”
252 Again, the Company refers to Slide 11 of the LNG Technical Conference
253 which is not compelling evidence to demonstrate what kind of future supply
254 disruptions might be experienced nor to support that a capacity of 150,000
255 Dth/day would be an appropriate remedy. At the time of a crises the need
256 could be greater than 150,000 Dth/day or may be caused by a disruption
257 that is not able to be resolved by an LNG plant at all.

258 **Q. ARE THERE ANY ADDITIONAL “OTHER UNANTICIPATED EVENT”**
259 **TYPE RISKS TO THE COMPANY’S PROPOSED LNG PLANT?**

¹¹ Docket 18-057-03, Direct Testimony of Tina M. Faust for DEU, 4-30-18, p.2-3.

¹² A copy of DEU response to OCS discovery request 2.24 can be found in Vastag Exhibit 1.1.

260 A. Yes, building such a facility in a highly populated and growing valley
261 appears to present other types of risks. For example, it is conceivable that
262 a not-in-my-backyard (nimby) movement could prevent the construction or
263 operation of the plant. DEU has not provided evidence that it has done
264 adequate work with local residents or officials to have confidence that this
265 project will move forward without opposition. Ratepayers should not be
266 forced to pay anything toward the development of a plant which may face a
267 significant risk of not becoming operational.

268 Nimby issues could become even more problematic, if a failure at the
269 plant occurred. A release of liquid and/or vaporized gas, possibly causing
270 an explosion, would cause public outcry and possibly cause the plant to
271 have to be shut down. Similar LNG facilities have experienced failures that
272 caused an explosion, such as the Williams Northwest LNG facility near
273 Plymouth, WA in March 2014.¹³

274

275 **Other potential reasons for DEU to pursue the LNG facility**

276 **Q. ARE THERE OTHER FACTORS PRESSURING DEU TO CONSTRUCT A**
277 **LARGE FACILITY SUCH AS AN LNG PLANT?**

278 A. Yes. DEU's parent company, Dominion Energy, which is comprised of 90%
279 regulated operations is promising its investors that it will generate 6-8%
280 annual growth in earnings and 6-10% annual growth in dividends. Dominion

¹³ See: <https://www.tri-cityherald.com/news/local/article75681512.html> and
<https://www.utc.wa.gov/publicSafety/Documents/Presentation%20from%20Northwest%20Pipeline%20-%2031-14%20LNG%20Incident.pdf>

281 Energy's June 2018 presentation to investors explained that these
282 increases were underpinned by a 6-7% per year growth in rate base.¹⁴ This
283 presentation lists the DEU LNG plant as one of the projects generating its
284 future growth.

285 **Q. COULD THE GOALS OF DEU'S CORPORATE PARENT AFFECT HOW**
286 **THE COMPANY DEVELOPS A SOLUTION TO THE NEWLY STATED**
287 **NEED TO ADDRESS SYSTEM RELIABILITY, I.E. POTENTIAL SUPPLY**
288 **SHORTFALLS?**

289 A. Yes. The corporate goals appear to favor a solution that involves the
290 Company building and owning a large expensive LNG facility rather than
291 contracting with a third party to provide system reliability solutions.

292

293 **Conclusions and Recommendations**

294 **Q. PLEASE SUMMARIZE THE OFFICE'S RECOMMENDATIONS**
295 **REGARDING DEU'S REQUEST FOR APPROVAL TO CONSTRUCT AN**
296 **LNG FACILITY.**

297 A. The Office recommends that the Commission deny DEU's request for
298 approval of an LNG facility. The Office believes that the Company has not
299 conducted sufficient due diligence concerning the newly identified system
300 reliability problem. DEU also failed to present sufficient evidence to meet

¹⁴ See: <http://investors.dominionenergy.com/static-files/e59c2e0a-6f33-42ff-b7a4-3c11fbddac33>.
A copy of the presentation is also included in Vastag Exhibit 1.1.

301 its burden of proof that an LNG facility is needed. The Company's request
302 is inadequate for the following reasons:

303 1. Lack of evidence in its application and in DEU's regulatory history
304 that a supply reliability problem exists on the DEU system and if
305 needed, that an LNG plant is the optimal solution.

306 2. Failure to adequately investigate all potential supply reliability
307 solutions considering the resilient, inter-connected nature of the
308 DEU system. For example, DEU should investigate its no-notice
309 transportation service, adjustments to existing transportation
310 contracts and how other LDCs address similar supply reliability
311 problems.

312 3. Lack of evidence that LNG plants are typically used by the natural
313 gas industry to deal with supply disruptions such as well freeze-
314 offs.

315 4. Failure to demonstrate that 150,000 Dth/day is an appropriately
316 sized plant to remedy its alleged supply reliability problem.

317 5. Failure to consider the risks of siting an LNG plant in the highly
318 populated Salt Lake Valley.

319

320 The Office agrees that the avoidance of natural gas outages during cold
321 winter weather is extremely important. However, the construction of an
322 LNG facility is not a time-limited solution. The Commission should require
323 more from the Company than the insufficient analysis provided in this

324 docket which is based on a continually shifting statement of problems used
325 to justify an LNG facility. The Commission should require the Company to
326 fully document the alleged supply reliability problem and fully explore and
327 completely evaluate all potential supply reliability services. Only then can
328 regulators and stakeholders properly assess what solution would be the
329 most effective for DEU's ratepayers.

330 Finally, if the Commission decides to approve the Company's
331 request, then the Office asserts that DEU's firm transportation customers
332 should share in the cost of an LNG facility because they would also benefit
333 from its service.

334

335 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

336 **A.** Yes it does.