## BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE REQUEST OF)DOMINION ENERGY UTAH FOR)APPROVAL OF A VOLUNTARY)DOCKET NO. 18-057-03RESOURCE DECISION TO CONSTRUCT)AN LNG FACILITY)

## SURREBUTTAL TESTIMONY

OF

#### JEROME D. MIERZWA

# FOR THE OFFICE OF CONSUMER SERVICES

September 20, 2018



10480 Little Patuxent Parkway, Suite 300 Columbia, Maryland 21044

# DIRECT TESTIMONY OF JEROME D. MIERZWA

1		I. <u>INTRODUCTION</u>
2	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
3	A.	My name is Jerome D. Mierzwa. I am a Principal and Vice President with Exeter
4		Associates, Inc. ("Exeter"). My business address is 10480 Little Patuxent Parkway,
5		Suite 300, Columbia, Maryland 21044. Exeter specializes in providing public utility-
6		related consulting services.
7	Q.	HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN THIS
8		PROCEEDING?
9	A.	Yes, my direct testimony was submitted on August 16, 2018.
10	Q.	WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?
11	A.	The purpose of my surrebuttal testimony is to respond to the rebuttal testimony filed
12		by Dominion Energy Utah ("DEU") witnesses Kelly B. Mendenhall, Tina M. Faust,
13		Michael L. Platt, and Bruce L. Paskett.
14	Q.	IN YOUR DIRECT TESTIMONY YOU RECOMMENDED THAT
15		TRANSPORTATION CUSTOMERS SHOULD BE REQUIRED TO PAY
16		FOR A SHARE OF THE PROPOSED LNG FACILITY. MR.
17		MENDENHALL DISAGREES WITH YOUR RECOMMENDATION.
18		WHY DOES MR. MENDENHALL DISAGREE WITH YOUR
19		RECOMMENDATION AND WHAT IS YOUR RESPONSE?
20	A.	Mr. Mendenhall claims that transportation customers would be assessed penalties if
21		they used gas supplies intended for sales customers such as supplies from the LNG
22		facility (Mendenhall Rebuttal, Lines 203-208). These penalties would compensate
23		sales customers for the use of the LNG facility by transportation customers. Recently
24		in Docket No. 18-057-T04, DEU has proposed tariff modifications to clarify its

25 curtailment procedures and penalties for transportation customers that use gas in excess 26 of quantities delivered to DEU on their behalf and use supplies intended for sales 27 customers. These proposed tariff modifications would alleviate my initial concern that 28 transportation customers would benefit from the proposed LNG facility but would not 29 pay for this benefit. If the tariff modifications in Docket No. 18-057-T04 are not 30 approved, my concerns remain valid. 31 MS. FAUST ADDRESSES STATEMENTS IN YOUR DIRECT Q. 32 **TESTIMONY THAT CURRENTLY "100 PERCENT OF THE GAS** 33 SUPPLIES RELIED UPON BY DEU SALES CUSTOMERS ARE 34 SOURCED FROM LOCATIONS THAT ARE SIGNIFICANT DISTANCES 35 FROM THE DEU SYSTEM AND DELIVERED BY UTILIZING FACILITIES OWNED AND OPERATED BY THIRD PARTIES," AND 36 37 THAT "THIS RELIANCE ON THIRD PARTIES HAS NOT HAD A 38 NEGATIVE IMPACT ON SERVICE RELIABILITY." WHAT IS MS. 39 FAUST'S RESPONSE TO THESE STATEMENTS? 40 Α In summary, Ms. Faust testifies that my comments highlight the Company's lack of 41 supply diversity. She claims the fact that 100 percent of the gas supplies come from 42 off-system sources is precisely her point, and it is evidence that an on-system source is

critical for supply diversity. Given past events, Ms. Faust claims that it has become
increasingly clear that total reliance on off-system supply source places the Company
and its customers at a greater risk of supply disruptions (Faust Rebuttal, Lines 185190).

# 47 Q. WHAT IS YOUR RESPONSE TO MS. FAUST?

A. As explained in detail in my direct testimony, significant diversity already exists in
 DEU's current off-system supply sources. In addition, as also explained in my direct

50		testimony, the proposed LNG facility would provide for approximately 10 percent of
51		the design day requirements of firm sales customers to be met from on-system sources
52		as opposed to 100 percent from off-system sources. The proposed LNG facility would
53		provide approximately 1,250,000 Dth of gas supply diversity on an annual basis. Based
54		on the sales data included in the Attachment to OCS 1.03 in Docket No. 17-057-20,
55		this reflects approximately 1 percent of total annual firm sales and 2 percent of total
56		winter firm sales. Therefore, the overall additional diversity provided by the proposed
57		LNG facility is not significant. Finally, it is my experience that it is not uncommon for
58		an LDC to rely 100 percent on off-system sources to meet its gas supply requirements.
59		The ability of LDCs to rely 100 percent on off-system sources has been enhanced as a
60		result of FERC's mandated unbundling, as set forth in Order No. 636, which provides
61		LDCs and gas transport customers the ability to access diverse gas supplies connected
62		to upstream pipelines at various gas supply basins and benefit from well-head
63		competition in the price of gas supplies.
64	Q.	MS. FAUST CLAIMS THAT IN YOUR DIRECT TESTIMONY YOU
65		INDICATED THAT MOST GAS UTILITIES USE LNG FOR CAPACITY
66		AS WELL AS SUPPLY RELIABILITY, AND THAT THE DEU
67		INITIATED AMERICAN GAS ASSOCIATION ("AGA") SURVEY
68		CONFIRMED THAT THE MAJORITY OF RESPONSIVE LDCs UTILIZE
69		LNG FOR SUPPLY RELIABILITY (FAUST REBUTTAL, LINES 274-282).
70		MR. PASKETT MAKES SIMILAR CLAIMS (PASKET REBUTTAL,
71		LINES 65-80). WHAT IS YOUR RESPONSE?
72	A.	First, I would note that Ms. Faust asked herself whether she agreed that most LDCs use
73		LNG for capacity as well as gas supply reliability, but she does not indicate whether

she agreed or disagreed. More importantly, however, as I explained in my direct

testimony, maintaining system supply reliability refers to maintaining adequate
capacity and gas supply resource portfolios. Nearly 80 percent of the LDCs responding
to the AGA survey cited upstream transportation capacity contracts as a service used
to maintain system reliability and, therefore, the responding LDCs concur that
maintaining system supply reliability refers to maintaining adequate capacity and gas
supply resources.

81 In this proceeding, DEU is proposing an LNG facility to serve as a back-up gas 82 supply resource, not a combined capacity and gas supply resource. Ms. Faust cites 83 Southwest Gas as a recent example of a utility that is expressly building an LNG facility 84 as a back-up gas supply resource. However, no evidence has been presented that 85 constructing an LNG facility to serve as a back-up gas supply resource is a common 86 LDC practice and, in fact, the Southwest Gas example is the only example provided in 87 this proceeding of an LDC constructing an LNG facility solely for this purpose. This 88 implies that every other LDC in the country is able to maintain supply reliability 89 without building an LNG facility to serve as a back-up gas supply resource.

90 Q. ARE YOU SUGGESTING THAT AN LDC WITH AN ON-SYSTEM LNG
91 FACILITY WOULD NOT USE THAT FACILITY IF IT EXPERIENCED A
92 SUPPLY SHORT-FALL?

A. No, not at all. As just explained, on-system LNG facilities serve as both capacity and
gas supply resources. If an LDC experienced a supply short-fall on a particular day, it
would evaluate all of its options for addressing the short-fall, including its on-system
LNG facility. It may well be that of all the available options, on-system LNG was the
least-expensive option for addressing the short-fall and, therefore, the option selected
to be utilized. However, in nearly every instance that I am aware, addressing a supply
short-fall is not the primary purpose an LDC would construct an LNG facility.

100	Q.	IN YOUR DIRECT TESTIMONY YOU STATED THAT SEVERAL OF
101		THE ALTERNATIVES TO AN LNG FACILITY EXAMINED BY DEU
102		REQUIRED THE ACQUISITION AND USE OF INCREMENTAL
103		UPSTREAM TRANSPORTATION CAPACITY AND THAT DEU DID
104		NOT FULLY EVALUATE THE USE OF EXISTING CAPACITY IN ITS
105		ANALYSIS OF ALTERNATIVES. PLEASE EXPLAIN YOUR CONCERN
106		IN ADDITIONAL DETAIL.
107	A.	In my direct testimony I explained that if a disruption at a supply source were to occur
108		on a design day, the firm transportation capacity initially being used to deliver the
109		disrupted supplies would be available to deliver alternative supplies and the acquisition
110		of additional firm transportation capacity or the construction of new facilities may not
111		be necessary.
112	Q.	WHAT WAS MS. FAUST'S RESPONSE TO YOUR CLAIM THAT DEU
113		DID NOT FULLY EVALUATE THE USE OF EXISTING FIRM
114		INTERSTATE PIPELINE TRANSPORTATION CAPACITY AND THAT
115		THERE ARE OPTIONS TO ADDRESS SUPPLY DISRUPTIONS THAT
116		USE DEU'S EXISTING FIRM CAPACITY?
117	A.	Ms. Faust claims that upstream pipeline capacity is only firm if the Company utilizes
118		its primary receipt and delivery points (primary path of flow), and service from an
119		alternative receipt point to an alternative delivery point may not be provided on a firm
120		basis (Faust Rebuttal, Lines 359-369). If this were the case, I still have two concerns.
121		First, I do not believe DEU has fully evaluated the potential to contract for back-up
122		supplies at its primary receipt points rather than pursing the construction of a new LNG
123		facility. Second, I would note that on a number of pipelines, receipts and deliveries at
124		alternative points can be considered firm, particularly when the flow of gas only utilizes

125		portions of the same primary path of flow. Such deliveries are considered secondary
126		in-path flows and can be provided on a firm basis. I also believe that DEU has not
127		sufficiently evaluated the use of secondary in-path flows in its analysis of alternatives
128		to the LNG facility.
129	Q.	MS. FAUST ALSO CLAIMS THAT IF A SUPPLY DISRUPTION OCCURS
130		AFTER GAS HAS BEEN NOMINATED (THE DAY BEFORE FLOW)
131		NEW SUPPLIES WILL BE SUBJECT TO THE CONSTRAINTS OF THE
132		PIPELINE NOMINATION CYCLES AND, THEREFORE, NOT
133		AVAILABLE WHEN NEEDED (FAUST REBUTTAL, LINES 370-379).
134		WHAT IS YOUR RESPONSE?
135	A.	As indicated in my direct testimony, in the response to OCS Data Request 2.03, DEU
136		indicated that in the past, there have been times when the upstream delivering pipeline
137		has allowed nomination changes to flow earlier than what was provided under current
138		pipeline nomination cycles.
139		
140	Q.	MR. PLATT CLAIMS THAT IN YOUR DIRECT TESTIMONY YOU
141		STATE THAT THE PROBABILITY OF OCCURRENCE OF THE
142		COMPANY'S DESIGN PEAK DAY IS ONE-IN-55 YEARS. MR. PLATT
143		DISAGREES WITH THIS CLAIM AND CONTENDS THAT THE
144		PROBABILITY OF OCCURRENCE OF THE COMPANY'S DESIGN DAY
145		IS ACTUALLY ONE-IN-20 YEARS (PLATT REBUTTAL, LINES 61-68).
146		WHAT IS YOUR RESPONSE?
147	A.	The section of my direct testimony cited by Mr. Platt discusses the costs associated
148		with the proposed LNG facility. I present cost estimates assuming a one-in-55-year
149		probability of occurrence based on most recent actual observed experience, and an

estimate based on a one-in-30-year probability of occurrence. Based on a probability distribution analysis, Mr. Platt claims that the probability of occurrence of DEU's design day is one-in-20 years. If Mr. Platt were correct and the probability of occurrence were one-in-20-years, if a supply disruption were to actually occur on a design day, and the proposed LNG facility was able to alleviate the impact of the disruption, the total cost to sales customers associated with maintaining service on this one day would be \$450 million, or an average of \$375 per customer.

I would further note that there is no standard approach to determining the probability of design day of occurrence used by LDCs. While some LDCs use the probability distribution analysis approach suggested by Mr. Platt, other LDCs determine the probability based on the actual number of observations over a specific period of time.

- 162 Q. MR. PLATT CLAIMS THAT IN YOUR DIRECT TESTIMONY YOU
- 163 INDICATE THAT NNT SERVICE COULD BE USED ON AN

164 INTERRUPTIBLE BASIS TO ENSURE RELIABILITY (PLATT

165 REBUTTAL, LINES 86-94). IS THIS ACCURATE?

A. No, and in fact in response to OCS Data Request No. 1.08, I indicate that an LDC
should not rely on an interruptible service to meet design day demands. The section of
my direct testimony referenced by Mr. Platt discusses both the firm and interruptible
aspects of NNT service. My direct testimony does not recommend that DEU rely on
the interruptible aspect of NNT service to meet design day demands.

- 171 Q. MR. PLATT CLAIMS THAT IN YOUR DIRECT TESTIMONY YOU
- 172 STATE THAT ONLY 45 PERCENT OF COMPANIES RESPONDED TO
- 173 THE AGA SURVEY THAT WAS PROVIDED AS EXHIBIT 2.04. HE
- 174 CLAIMS THAT THIS IS EITHER A MISUNDERSTANDING OR

175		MISSTATEMENT (PLATT REBUTTAL, LINES 183-194). IS MR. PLATT
176		CORRECT?
177	A.	No. In my direct testimony, I indicated that 45 percent of the LDCs responding to the
178		AGA survey operate an on-system LNG facility, and that this 45 percent only referred
179		to the LDCs responding to the survey which is a subset of all LDCs. Therefore, Mr.
180		Platt has misinterpreted my testimony. There is no disagreement that 45 percent of the
181		LDCs responding to the survey have on-system LNG.
182	Q.	IN YOUR DIRECT TESTIMONY YOU NOTED THE SIGNIFICANT
183		SUPPLY DISRUPTIONS THAT OCCURRED DURING THE BOMB
184		CYCLONE OF 2018 AND THAT NO CUSTOMERS OUTAGES WERE
185		REPORTED AND NO PLANS TO BUILD LNG FACILITIES RESULTED.
186		WHAT WAS MR. PLATT'S RESPONSE TO YOUR TESTIMONY ON
187		THIS ISSUE?
188	A.	Mr. Platt claims that there were no gas supply issues as a result of the Bomb Cyclone
189		because many companies already have on-system LNG facilities. He also claims that
190		although temperatures were cold during the Bomb Cyclone, temperatures did not reach
191		design day temperatures in major demand centers (Platt Rebuttal, Lines 195-213).
192	Q.	WHAT IS YOUR RESPONSE TO MR. PLATT?
193	A.	In the past, DEU has experienced gas supply disruption when temperatures were less
194		extreme than the design day temperature it utilizes for capacity and gas supply planning
195		purposes. DEU is requesting approval of an LNG facility in this proceeding to address
196		gas supply disruption that might occur on a design day. LDCs generally maintain a
197		balance between their capacity and gas supply resources and their projected design day
198		demands. Thus, if an LDC with an LNG facility were to experience a supply disruption
199		on a design day, their LNG facility would not be sufficient to address the supply

200 disruption. It is also likely that many of the LDCs that may have experienced supply 201 disruptions did not operate on-system LNG facilities. I believe it is reasonable to 202 expect that the LDCs that experienced supply disruptions during the Bomb Cyclone of 203 2018 also recognized, as does Mr. Platt, that the supply disruptions occurred at 204 temperatures less extreme than design day temperatures. Despite the similar 205 experiences of DEU and the LDCs that experience supply disruptions during the Bomb 206 Cyclone, there is no evidence that the other LDCs are actively pursuing the construction 207 of new or additional LNG facilities to address the potential for supply disruptions on a 208 design day. The logical conclusion from these observations is that the other LDCs have 209 found or have in place procedures to address design day supply disruptions without the 210 addition of incremental LNG facilities. 211 MR. PLATT CLAIMS THAT IN A DATA REQUEST RESPONSE (OCS О. 212 DATA REQUEST 1.01 REQUESTED BY DEU) YOU INDICATED THAT 213 SEVERAL LDCS SECURE RESOURCES THAT EXCEED THEIR 214

214 PROJECTED DESIGN DAY REQUIREMENTS, AND CONCLUDES

THAT THIS IS EVIDENCE THAT LDCS AND COMMISSIONS ACROSS

- 216 THE UNITED STATES FIND IT PRUDENT TO BUILD A MARGIN OF
- 217 SAFETY INTO THEIR SUPPLY PORTFOLIO FOR RELIABILITY

218 (PLATT REBUTTAL, LINES 214-221). WHAT IS YOUR RESPONSE?

- A. First, I would note that the design day forecasting models utilized by the other LDCs
  referenced in my data request response do not utilize all of the independent variables
  included in the Company's design day model. The independent variables included in
  the Company's design day forecast model include:
- Heating degree days;

215

• Maximum windspeed;

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Average windspeed;
Day of the week;
Winter holiday indication; and
Prior day demand.
Because all of these independent variables are not included in the forecasting
models of the LDCs identified in the data response, it is more likely that if design day

conditions were experienced, actual observed design day demands for these LDCs
would exceed forecasted design day demands than would DEU's actual observed
demands exceed forecasted design day demand.

234 In addition, the data request response referenced by Mr. Platt refers to 235 maintaining capacity resources in excess of design day demands or a capacity reserve. 236 In this proceeding, DEU is claiming it is necessary to maintain back-up gas supply 237 resources in excess of design day demands in the event a supply shortfall is 238 experienced, not additional capacity. DEU's proposal to maintain reserve supply 239 resources will cost sales customers hundreds of millions of dollars. In contrast, for 240 those LDCs identified in the data request response, the costs associated with 241 maintaining gas supply resources to fill their capacity reserve would typically be de 242 *minimis*, if there are any costs at all. This is because the costs associated with reserving 243 gas supplies for delivery to an upstream pipeline receipt point is typically *de minimis*, 244 or non-existent.

Q. MR. PLATT CLAIMS THAT THE MAJORITY OF LDCs FOR WHICH
INFORMATION IS AVAILABLE IN THIS PROCEEDING HAVE SOME
FORM OF ON-SYSTEM STORAGE AND BENEFIT FROM HAVING
ON-SYSTEM STORAGE (PLATT REBUTTAL, LINES 222-236). WHAT
IS YOUR RESPONSE?

A. As explained in my direct testimony and earlier in my surrebuttal, those LDCs that currently have on-system storage utilize that storage as both a capacity and gas supply resource. In this proceeding, DEU is proposing an on-system storage facility that would serve as a back-up gas supply resource. There has been no evidence presented of a single LDC in the country currently utilizing on-system storage solely as a backup gas supply as DEU proposes.

- 256 Q. IN YOUR DIRECT TESTIMONY YOU CLAIMED THAT THE RESULTS
- 257 OF THE AGA SURVEY WHICH INDICATED THAT 45 PERCENT OF
- 258 LDCS OPERATED ON-SYSTEM LNG FACILITIES WAS NOT A
- 259 RELEVANT FACTOR IN THIS PROCEEDING. MR. PASKETT CLAIMS
- 260 THAT THE 45 PERCENT FIGURE IS RELEVANT (PASKETT
- 261 REBUTTAL, LINES 38-57). WHY DOES MR. PASKETT DISAGREE
- 262 WITH YOUR CLAIM?
- A. It appears that Mr. Paskett believes I found the 45 percent statistic irrelevant largely
  because the AGA survey included only a small number of LDCs.
- 265 Q. IS THE SMALL SAMPLE SIZE THE PRIMARY REASON YOU FOUND
  266 THE 45 PERCENT FIGURE IRRELEVANT?
- 267 Α No. As explained in my direct testimony, I have reviewed the capacity and gas supply 268 resource portfolios of approximately 40 LDCs. None of those LDCs with on-system 269 LNG facilities use those facilities solely as a back-up gas supply resource. Therefore, 270 it is likely that none of the 45 percent of LDCs with LNG facilities included in the AGA 271 survey utilize their LNG facility solely as a back-up gas supply resource to address 272 design day supply shortfalls as DEU is proposing in this proceeding. DEU has not 273 identified any LDCs that currently utilize their on-system LNG facility solely as a back-274 up gas supply resource. I found the 45 percent statistic not to be a relevant statistic for

275 this proceeding primarily because based on the evidence presented in this proceeding, 276 none of the LDCs identified in the AGA survey with LNG facilities use that facility 277 solely as a back-up gas supply resource as DEU proposes in this proceeding. The 278 evidence presented in this proceeding indicates that the 45 percent of LDCs identified 279 in the AGA survey use LNG facilities as both a gas supply and capacity resource. To 280 be relevant to this proceeding, DEU should have initiated an AGA survey with 281 questions designed to determine whether LDCs with on-system LNG facilities use 282 those facilities as both capacity and gas supply resources or solely as back-up gas 283 supply resources, and also to assess how these LDCs would manage a supply disruption 284 that occurred on a design day. 285 Q. MR. PLATT ON LINES 106 - 111 ADMITS THAT PAST OUTAGES AT 286 COALVILLE, MONTICELLO, GLENDALE, SARATOGA AND OGDEN 287 VALLEY WOULD NOT HAVE BEEN PREVENTED BY THE 288 COMPANY'S PROPOSED LNG FACILITY. HAS DEU PROVIDED ANY 289 ANALYSIS AS TO WHETHER SIMILAR OUTAGES ALONG THE 290 WASATCH FRONT MIGHT NOT REQUIRE THE PROPOSED LNG 291 FACILITY TO BE SUCCESSFULLY AVOIDED OR RESOLVED? 292 Α Yes. In response to DPU 4.18 (attached as Mierzwa Exhibit 2.1S), the Company 293 provided its 2017 – 2018 Contingency Planning Analysis dated February 6, 2018. 294 This analysis modeled the impact on DEU's High Pressure System of the loss of a

295 major city gate station. The conclusion of this report stated: "Contingency analysis

indicates that in most cases if a gate station outage occurs, gas supply can be
reallocated to nearby stations to maintain system pressures."

237 Teanocated to nearby stations to maintain system pressures.

298 Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?299 A. Yes, it does.