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ADDITIONAL DIRECT TESTIMONY OF DAVID G. TUCEK

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is David G. Tucek. My business address is 1000 GTE Drive, Wentzville, MO 63385.

Q. ARE YOU THE SAME DAVID G. TUCEK WHO PREVIOUSLY FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR ADDITIONAL DIRECT TESTIMONY?

A. The purpose of my additional direct testimony is to describe and sponsor the following recurring cost studies:

- (1) UNE Combinations;
- (2) Subloop TELRICs;
- (3) Intrabuilding Cable;
- (4) Dark Fiber.

The results of the first of these studies were filed on June 15, 2000, and appear in Tab 5 of the Company's filing package. The remaining studies have been filed on June 30, 2000, and appear in Tabs 32, 33 and 34. Filed concurrently with these studies is a CD-ROM that contains an update of GTE's long-run forward-looking cost model, ICM. This update, Version 4.1b, reflects changes needed to the

1 program logic to develop the Subloop TELRICs. The CD-ROM
2 contains confidential data and has been sent to only those parties
3 who have signed the appropriate protective agreement.
4

5 **Q. HOW WERE THE UNE COMBINATION STUDIES PERFORMED?**

6 A. These studies relied on the cost study results that GTE filed on April
7 17, 2000, and on the information presented in the direct testimony of
8 GTE witness Dennis Trimble. The summary sheet filed on June 15TH
9 identified the source of each of the costs presented in that summary.
10 Direct Exhibit DGT-4 presents a more detailed breakdown of each of
11 the UNE Combination TELRICs, showing both the costs and source
12 of the constituent components. The spreadsheet containing this
13 exhibit, FLUNECOMB.XLS, is also included on the CD-ROM filed on
14 June 30, 2000.
15

16 **Q. HOW WERE THE SUBLOOP TELRICS DETERMINED?**

17 A. The subloop TELRICs for feeder and distribution outside plant, and
18 for drops, were estimated using an updated version of ICM, Version
19 4.1b, which has been included on the CD-ROM filed on June 30,
20 2000. Because access to the feeder and distribution subloop
21 elements can occur at either a DLC or any cross-connect box, the
22 copper backbone cable that ICM designates as feeder was split
23 evenly between the feeder and distribution subloop UNEs. The
24 changes made to this version of ICM were needed to identify properly
25 the network components making up the feeder and distribution

1 subloops, and to identify separately the length of the average
2 business loop used in the dark fiber study. Part of these changes
3 identified the portion of conduit investment utilized by copper cables.
4 This in turn permitted GTE to refine the mapping for the 4-wire UNE.
5 As explained below, by itself, the change in the identification of the
6 conduit investment would cause an increase in the 4-wire TELRIC.
7 However, correction of an error in the mapping of the 4-wire loop
8 results in a net decrease overall. Also, the change in the identification
9 of the conduit investment affected the TELRICs for 56-kilobit and DS1
10 Digital Special Access Lines (DSAL-56KB and DSAL-DS1).

11

12 **Q. WHY WOULD THE CHANGE IN THE IDENTIFICATION OF**
13 **CONDUIT INVESTMENT INCREASE THE 4-WIRE TELRIC?**

14 A. The four-wire loop utilizes two pairs for the copper portion of the loop,
15 but only a single channel for the fiber portion. In the initial mapping,
16 conduit investment was assigned only to the fiber portion of a loop,
17 even though it is used by both fiber and copper cables in the modeled
18 network. Consequently, all of the conduit investment received a
19 weighting of one in the mapping for a four-wire loop, when the portion
20 attributable to copper cables should have received a weighting of two.
21 Changing the mapping to take advantage of the greater level of detail
22 in Version 4.1b increases the investment assigned to the 4-wire loop,
23 and also increases its TELRIC. However, the original 4-wire mapping
24 assigned two drops to the 4-wire loop. Changing this to a single drop
25 and weighting the copper portion of the conduit investment as just

1 described decreases the 4-wire TELRIC by 1.7 percent, to \$48.12 per
2 month.

3

4 **Q. WHY WOULD THE CHANGE IN THE IDENTIFICATION OF**
5 **CONDUIT INVESTMENT AFFECT THE COST OF THE DSAL**
6 **TELRICS?**

7 A. As with the 4-wire loop, under the original mapping for the DSAL-
8 56KB TELRIC, the conduit investment was not given the proper
9 weighting to reflect the portion used by copper cable, causing the cost
10 to be understated. The change works in the opposite direction with
11 respect to the DSAL-DS1. Under the original mapping, all of the
12 conduit investment was given a weight of 24, since a DS1 is
13 equivalent to 24 voice-grade channels. Under the new mapping, the
14 portion attributable to copper should only receive a weight of 2, as
15 with the 4-wire loop. Consequently, the original mapping overstated
16 the DSAL-DS1 TELRIC. These changes increase the DSAL-56KB
17 TELRIC by 0.5 percent, to \$59.65 per month, and decreases the
18 DSAL-DS1 by 3.7 percent to \$141.63 per month.

19

20 **Q. HOW WERE THE COSTS OF INTRABUILDING CABLE**
21 **DEVELOPED?**

22 A. These TELRICs are based on the per-pair cost of placing 200 feet of a
23 600-pair riser cable and 50-feet of a 100-pair horizontal cable. The
24 spreadsheet INTRAFL600.XLS contains the cost study and is
25 included on the CD-ROM filed on June 30, 2000. The results of the

1 study have been filed in Tab 33 of the Company's cost filing. Note
2 that the cost of intrabuilding cable is not explicitly modeled by ICM.
3 Consequently, it is excluded from the TELRICs of the UNEs that
4 utilize a loop.

5

6 **Q. HOW WAS THE DARK FIBER STUDY PERFORMED?**

7 Q. The Dark Fiber study is based on the cost of a 24-fiber cable, using
8 the average length of a business loop modeled by ICM. While this
9 study was completed outside of ICM, the material and placement
10 costs, depreciation and return factors, and the other expense factors
11 used are the same as are used by ICM. The outside plant
12 percentages correspond to the overall percentages for aerial, buried
13 and underground placement reported in ARMIS for Florida as of year-
14 end 1999. The spreadsheet DRK-FL.XLS contains the cost study and
15 is included on the CD-ROM filed on June 30, 2000. The cost results
16 can also be found in Tab 34 of the Company's ICM filing.

17

18 **Q. DOES THIS CONCLUDE YOUR ADDITIONAL DIRECT**
19 **TESTIMONY?**

20 A. Yes, it does.

21

22

23

24

25

GTE Florida, Inc.
Docket No. 990649-TP
Unbundled Network Elements
UNE PLATFORM/EEL COST STUDY
TELRICs

Unbundled Elements / Services		(a) TELRIC / 1
		\$/line/month \$/minute
1	(1) UNE PLATFORM	
2	#1 UNE Basic Analog Platform	
3	2-Wire Voice Grade Loop (w/o Billing & Collection and NID)	\$19.03 Footnote 2.
4	2-Wire Port	\$2.73 Cost Study Tab 6, Page 1.
5	Basic NID	\$0.76 Cost Study Tab 6, Page 1.
6	DS0 Jumper	<u>\$0.23</u> Cost Study Tab 7, Page 1.
7	UNE Basic Analog Platform. Usage is additional (see Footnote 1).	\$22.75
8		
9	<u>Deaveraged Rate for Basic Analog Platform. Usage is additional (see Footnote 1).</u>	
10	Zone 1 Deaveraged 2-wire Rate	20.72 Exhibit DBT-4, Page 1.
11	Zone 2 Deaveraged 2-wire Rate	27.42 Exhibit DBT-4, Page 1.
12	Zone 3 Deaveraged 2-wire Rate	49.93 Exhibit DBT-4, Page 1.
13		
14	COU	\$4.43 Cost Study Tab 6, Page 1.
15		
16	Loop B&C	\$0.60 ICM non-BNF table & UNEMAPFL.DB.
17		
18	Zone 1 (Deaveraged 2-wire Rate of \$20.72 less COU \$4.43 plus port of \$2.73 plus NID of \$0.76 less Loop B&C of \$0.60 plus DS0 Jumper of \$0.23)	\$19.41
19	Zone 1 (Deaveraged 2-wire Rate of \$27.42 less COU \$4.43 plus port of \$2.73 plus NID of \$0.76 less Loop B&C of \$0.60 plus DS0 Jumper of \$0.23)	\$26.11
20	Zone 1 (Deaveraged 2-wire Rate of \$49.93 less COU \$4.43 plus port of \$2.73 plus NID of \$0.76 less Loop B&C of \$0.60 plus DS0 Jumper of \$0.23)	\$48.62
21		
22		
23	#2 UNE ISDN BRI PLATFORM (excludes Billing/Collection & Cost of Unbundling)	
24	ISDN Loop 2-Wire	\$23.49 Cost Study Tab 6, Page 1.
25	Less: Basic NID	(\$0.76) Cost Study Tab 6, Page 1.
26	Less: Loop B&C	(\$0.60) ICM non-BNF table & UNEMAPFL.DB.
27	ISDN BRI Port	\$11.43 Cost Study Tab 6, Page 1.
28	Basic NID	\$0.76 Cost Study Tab 6, Page 1.
29	DS-0 Jumper	<u>\$0.23</u> Cost Study Tab 7, Page 1.
30	UNE ISDN BRI Platform. Usage is additional (see Footnote 1).	\$34.55
31		
32	<u>Deaveraged Rate for UNE ISDN BRI Platform. Usage is additional (see Footnote 1).</u>	
33	Zone 1 Deaveraged 2-wire Rate	20.72 Exhibit DBT-4, Page 1.
34	Zone 2 Deaveraged 2-wire Rate	27.42 Exhibit DBT-4, Page 1.
35	Zone 3 Deaveraged 2-wire Rate	49.93 Exhibit DBT-4, Page 1.
36		
37	COU	\$6.17 Cost Study Tab 6, Page 1.
38		
39	Loop B&C	\$0.60 ICM non-BNF table & UNEMAPFL.DB.
40		
41	BRI Card in DLC, Additional Cost	\$3.10 Footnote 2.
42		
43	Zone 1 (Deaveraged 2-wire Rate of \$20.72 less COU \$6.17 plus port of \$11.43 plus NID of \$0.76 less Loop B&C of \$0.60 plus DS0 Jumper of \$0.23 plus BRI card of \$3.1)	\$29.47
44	Zone 1 (Deaveraged 2-wire Rate of \$27.42 less COU \$6.17 plus port of \$11.43 plus NID of \$0.76 less Loop B&C of \$0.60 plus DS0 Jumper of \$0.23 plus BRI card of \$3.1)	\$36.17
45	Zone 1 (Deaveraged 2-wire Rate of \$49.93 less COU \$6.17 plus port of \$11.43 plus NID of \$0.76 less Loop B&C of \$0.60 plus DS0 Jumper of \$0.23 plus BRI card of \$3.1)	\$58.68
46		
47		
48	#3 UNE ISDN PRI Platform	
49	DS-1 Loop	\$189.02 Cost Study Tab 6, Page 8.
50	ISDN PRI Port	\$189.99 Cost Study Tab 6, Page 1.
51	Less: Loop B&C	(\$0.60) ICM non-BNF table & UNEMAPFL.DB.

GTE Florida, Inc.
Docket No. 990649-TP
Unbundled Network Elements
UNE PLATFORM/EEL COST STUDY
TELRICs

		(a)
		TELRIC / 1
Unbundled Elements / Services		\$/line/month \$/minute
52	DS1 Jumper	\$0.42 Cost Study Tab 7, Page 1.
53	UNE ISDN PRI Platform. Usage is additional (see Footnote 1).	\$378.83
54		
55	<u>Deaveraged Rate for UNE ISDN PRI Platform. Usage is additional (see Footnote 1).</u>	
56	Zone 1 Deaveraged DS-1 Loop Rate	\$175.04 Exhibit DBT-4, Page 4.
57	Zone 2 Deaveraged DS-1 Loop Rate	\$198.77 Exhibit DBT-4, Page 5.
58	Zone 3 Deaveraged DS-1 Loop Rate	\$364.95 Exhibit DBT-4, Page 6.
59		
60	Loop B&C	\$0.60 ICM non-BNF table & UNEMAPFL DB.
61		
62	Zone 1 (Deaveraged DS-1 Loop Rate of \$175.04 plus port of \$189.99 plus DS1 Jumper of \$0.42 less Loop B&C of \$0.60)	\$364.85
63	Zone 1 (Deaveraged DS-1 Loop Rate of \$198.77 plus port of \$189.99 plus DS1 Jumper of \$0.42 less Loop B&C of \$0.60)	\$388.58
64	Zone 1 (Deaveraged DS-1 Loop Rate of \$364.95 plus port of \$189.99 plus DS1 Jumper of \$0.42 less Loop B&C of \$0.60)	\$554.76
65		
66		
67	#4 <u>UNE DS-1 Platform</u>	
68	DS-1 Loop	\$189.02 Cost Study Tab 6, Page 8.
69	DS-1 Digital Trunk Side Port	\$59.80 Cost Study Tab 6, Page 1.
70	DS1 Jumper	\$0.42 Cost Study Tab 7, Page 1.
71	Less: Loop B&C	(\$0.60) ICM non-BNF table & UNEMAPFL DB.
72	UNE DS-1 Platform. Usage is additional (see Footnote 1).	\$248.64
73		
74	<u>Deaveraged Rate for UNE ISDN DS-1 Platform. Usage is additional (see Footnote 1).</u>	
75	Zone 1 Deaveraged DS-1 Loop Rate	\$175.04 Exhibit DBT-4, Page 4.
76	Zone 2 Deaveraged DS-1 Loop Rate	\$198.77 Exhibit DBT-4, Page 5.
77	Zone 3 Deaveraged DS-1 Loop Rate	\$364.95 Exhibit DBT-4, Page 6.
78		
79	DS1 Jumper	\$0.42 Cost Study Tab 7, Page 1.
80		
81	Loop B&C	\$0.60 ICM non-BNF table & UNEMAPFL DB.
82		
83	Zone 1 (Deaveraged DS-1 Loop Rate of \$175.04 plus port of \$59.80 plus DS1 Jumper of \$0.42 less Loop B&C of \$0.60)	\$234.66
84	Zone 1 (Deaveraged DS-1 Loop Rate of \$198.77 plus port of \$59.80 plus DS1 Jumper of \$0.42 less Loop B&C of \$0.60)	\$258.39
85	Zone 1 (Deaveraged DS-1 Loop Rate of \$364.95 plus port of \$59.80 plus DS1 Jumper of \$0.42 less Loop B&C of \$0.60)	\$424.57
86		
87		
88	(2) ENHANCED EXTENDED LINK (EELS)	
89	#1 <u>Loop_DS0/1 multiplexing, DS1 interoffice transport</u>	
90	2-Wire Voice Grade Loop (w/o Billing & Collection and NID)	\$19.03 Footnote 2.
91	Basic NID	\$0.76 Cost Study Tab 6, Page 1.
92	DS-0 Jumper	\$0.23 Cost Study Tab 7, Page 1.
93	Loop B&C	\$0.60 ICM non-BNF table & UNEMAPFL DB.
94	DS-1 to Voice Grade Multiplexing (1-24 Loop Capacity)	\$159.07 Cost Study Tab 6, Page 5.
95	Loop, DS0/1 multiplexing, DS1 interoffice transport. Usage is additional.	\$179.69
96		
97	Each Additional 2-Wire Voice Grade Loop (including Jumper)	\$20.02 Cost Study Tab 7, Page 1
98		
99	<u>Deaveraged Rate for 2-Wire Loop plus DS-0/1 Multiplexing (1-24 Capacity)</u>	
100	Zone 1 Deaveraged 2-wire Rate	\$20.72 Exhibit DBT-4, Page 1.
101	Zone 2 Deaveraged 2-wire Rate	\$27.42 Exhibit DBT-4, Page 1.
102	Zone 3 Deaveraged 2-wire Rate	\$49.93 Exhibit DBT-4, Page 1.
103		
104	COU	\$4.43 Cost Study Tab 6, Page 1.
105		
106	Zone 1 (Deaveraged 2-Wire Rate of \$20.72 plus NID of \$0.76 plus DS0 Jumper of \$0.23 plus Multiplexing of \$159.07 less COU of \$4.43)	\$176.35

GTE Florida, Inc.
Docket No. 990649-TP
Unbundled Network Elements
UNE PLATFORM/EEL COST STUDY
TELRICs

		(a)
		TELRIC / 1
Unbundled Elements / Services		\$/line/month \$/minute
107	Zone 1 (Deaveraged 2-Wire Rate of \$27.42 plus NID of \$0.76 plus DS0 Jumper of \$0.23 plus Multiplexing of \$159.07 less COU of \$4.43)	\$183.05
108	Zone 1 (Deaveraged 2-Wire Rate of \$49.93 plus NID of \$0.76 plus DS0 Jumper of \$0.23 plus Multiplexing of \$159.07 less COU of \$4.43)	\$205.56
109		
110	Each Additional Deaveraged Loop	
111	Zone 1 (Deaveraged 2-Wire Rate of \$20.72 plus NID of \$0.76 plus DS0 Jumper of \$0.23 less COU of \$4.43)	\$17.28
112	Zone 1 (Deaveraged 2-Wire Rate of \$27.42 plus NID of \$0.76 plus DS0 Jumper of \$0.23 less COU of \$4.43)	\$23.98
113	Zone 1 (Deaveraged 2-Wire Rate of \$49.93 plus NID of \$0.76 plus DS0 Jumper of \$0.23 less COU of \$4.43)	\$46.49
114		
115	<u>Additional Usage--Transport and Terminations</u>	
116	Dedicated DS-1 interoffice transport-Transport Facility per ALM	\$0.33 Cost Study Tab 6, Page 6.
117	Dedicated DS-1 interoffice transport-Transport Termination--Per Termination	\$21.83 Cost Study Tab 6, Page 6.
118		
119		
120	#2 <u>DS-1 Loop, DS-1 interoffice transport</u>	
121	DS-1 Loop	\$189.02 Cost Study Tab 6, Page 8
122	DS-1 Jumper	\$0.42 Cost Study Tab 7, Page 1.
123	DS-1 Loop, DS-1 Interoffice Transport	\$189.44
124		
125	<u>Deaveraged Rate for DS-1 Loop</u>	
126	Zone 1 Deaveraged DS-1 Loop Rate	\$175.04 Exhibit DBT-4, Page 4.
127	Zone 2 Deaveraged DS-1 Loop Rate	\$198.77 Exhibit DBT-4, Page 5
128	Zone 3 Deaveraged DS-1 Loop Rate	\$364.95 Exhibit DBT-4, Page 6.
129		
130	Zone 1 (Deaveraged DS-1 Loop Rate of \$175.04 plus DS1 Jumper of \$0.42)	\$175.46
131	Zone 1 (Deaveraged DS-1 Loop Rate of \$198.77 plus DS1 Jumper of \$0.42)	\$199.19
132	Zone 1 (Deaveraged DS-1 Loop Rate of \$364.95 plus DS1 Jumper of \$0.42)	\$365.37
133		
134	<u>Additional Usage--Transport and Terminations</u>	
135	Dedicated DS-1 interoffice transport-Transport Facility per ALM	\$0.33 Cost Study Tab 6, Page 6.
136	Dedicated DS-1 interoffice transport-Transport Termination--Per Termination	\$21.83 Cost Study Tab 6, Page 6.
137		
138		
139	#3 <u>DS-1 Loop, DS-1/3 multiplexing, DS-3 interoffice transport</u>	
140	DS-1 Loop	\$189.02 Cost Study Tab 6, Page 8.
141	DS-3 Jumper Electrical	\$0.42 Cost Study Tab 7, Page 1.
142	DS-3 to DS-1 Multiplexing (1-24 Loop Capacity)	\$437.00 Cost Study Tab 6, Page 6.
143	Total	\$626.44
144		
145	Each Additional DS-1 Loop (including \$0.42 Jumper)	\$189.44 Cost Study Tab 6, Page 8. Cost Study Tab 7, Page 1.
146		
147	<u>Deaveraged Rate for DS-1 Loop plus DS-1/3 Multiplexing</u>	
148	Zone 1 Deaveraged DS-1 Loop Rate	\$175.04 Exhibit DBT-4, Page 4.
149	Zone 2 Deaveraged DS-1 Loop Rate	\$198.77 Exhibit DBT-4, Page 5.
150	Zone 3 Deaveraged DS-1 Loop Rate	\$364.95 Exhibit DBT-4, Page 6.
151		
152	Zone 1 (Deaveraged DS-1 Loop Rate of \$175.04 plus DS1 Jumper of \$0.42 plus Multiplexing of \$437.00)	\$612.46
153	Zone 1 (Deaveraged DS-1 Loop Rate of \$198.77 plus DS1 Jumper of \$0.42 plus Multiplexing of \$437.00)	\$636.19
154	Zone 1 (Deaveraged DS-1 Loop Rate of \$364.95 plus DS1 Jumper of \$0.42 plus Multiplexing of \$437.00)	\$802.37
155		
156	<u>Each Additional Deaveraged DS-1 Loop</u>	
157	Zone 1 (Deaveraged DS-1 Loop Rate of \$175.04 plus DS1 Jumper of \$0.42)	\$175.46
158	Zone 1 (Deaveraged DS-1 Loop Rate of \$198.77 plus DS1 Jumper of \$0.42)	\$199.19
159	Zone 1 (Deaveraged DS-1 Loop Rate of \$364.95 plus DS1 Jumper of \$0.42)	\$365.37
160		
161	<u>Additional Usage--Transport and Terminations</u>	

GTE Florida, Inc.
Docket No. 990649-TP
Unbundled Network Elements
UNE PLATFORM/EEL COST STUDY
TELRICs

		(a)	
		TELRIC / 1	
Unbundled Elements / Services		\$/line/month	\$/minute
162	Dedicated DS-3 interoffice transport-Transport Facility per ALM	\$3.76	Cost Study Tab 6, Page 6.
163	Dedicated DS-3 interoffice transport-Transport Termination--Per Termination	\$112.86	Cost Study Tab 6, Page 6.
164			
165			
166	FOOTNOTE 1		
167	USAGE--on a per minute/per mile basis. Features and Data		
168	Queries would be in addition to these costs.		
169	End Office -AVG MOU-24 Hour	\$0.0022600	Cost Study Tab 6, Page 1.
170	Tandem Switching-AVG MOU-24 Hour	\$0.0014800	Cost Study Tab 6, Page 6.
171	Common Shared Transport-Transport Term-AVG MOU-24 Hour	\$0.0000855	Cost Study Tab 6, Page 6.
172	Common Shared Transport-ALM-AVG MOU-24 Hour	\$0.0000006	Cost Study Tab 6, Page 6.
173			
174			
175	FOOTNOTE 2		
176	Cost of 2-Wire Loop from May 1, 2000 Filing:		
177	<u>Local Loop</u>		
178	2-Wire Voice Grade Loop	\$20.39	Cost Study Tab 6, Page 1.
179	Cost of Unbundling	\$4.43	Cost Study Tab 6, Page 1.
180	Less: Basic NID	<u>(\$0.76)</u>	Cost Study Tab 6, Page 1.
181			
182	Calculation of 2-Wire Voice Grade Loop for June 15, 2000 Filing:		
183	<u>Local Loop</u>		
184	2-Wire Voice Grade Loop	\$20.39	Cost Study Tab 6, Page 1.
185	Less: Billing & Collection	<u>(\$0.60)</u>	ICM non-BNF table & UNEMAPFL.DB.
186	Less: Basic NID	<u>(\$0.76)</u>	Cost Study Tab 6, Page 1.
187	2-Wire Voice Grade Loop (w/o Billing & Collection and NID)	\$19.03	
188			
189	Calculation of BRI Card in DLC, Additional Cost		
190	ISDN Loop 2-Wire	\$23.49	Cost Study Tab 6, Page 1.
191	2-Wire Voice Grade Loop	<u>(\$20.39)</u>	Cost Study Tab 6, Page 1.
192	BRI Card in DLC, Additional Cost	\$3.10	