

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Investigation into Pricing)
Of Unbundled Network Elements,) Docket No. 990649-TP
Phase II)

ADDITIONAL DIRECT TESTIMONY OF

LINDA CASEY

ON BEHALF OF

GTE FLORIDA INCORPORATED

**SUBJECT: NON-RECURRING COSTS OF UNBUNDLING DARK FIBER, SUB-
LOOPS AND UNE COMBINATIONS**

JUNE 30, 2000

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FPSC-RECORDS/REPORTING

I. INTRODUCTION

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Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Linda Casey. My business address is 600 Hidden Ridge, Irving, Texas.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by GTE Service Corporation as Manager–Costing. I am appearing on behalf of GTE Florida Incorporated (“GTE”) in this proceeding.

Q. ARE YOU THE SAME LINDA CASEY WHO FILED DIRECT TESTIMONY IN THIS PROCEEDING ON MAY 1, 2000?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I will present GTE’s total element long-run incremental cost (TELRIC) study of the non-recurring charges underlying GTE’s proposed rates for dark fiber, sub-loops, and the UNE combinations designated in Issue 12--that is, the “UNE Platform” (UNE-P) and enhanced extended links (EELs). GTE witness Trimble describes all of these elements in his Direct Testimony filed on June 30, 2000. The non-recurring costs associated with the remaining unbundled network elements (UNEs) to be priced in the proceeding were addressed in my Direct Testimony filed on May 1, 2000.

1 In my previously submitted testimony, I explained that non-recurring
2 costs are those incurred in accepting, evaluating, and provisioning
3 alternative local exchange carrier (ALEC) requests. (Casey DT at
4 3.) I described the basic characteristics of GTE's non-recurring
5 cost studies and the TELRIC standard GTE employed in
6 performing the studies. (Casey DT at 5-7.) The same general
7 observations I made at that time apply equally to the additional non-
8 recurring cost studies I am presenting here.

9

10 **Q. ARE YOU SPONSORING ANY EXHIBITS IN SUPPORT OF**
11 **YOUR TESTIMONY?**

12 A. Yes. I am sponsoring GTE's non-recurring cost study for dark fiber
13 and sub-loops that has been filed concurrently with this testimony.
14 GTE's non-recurring cost study for the UNE Platform and EELs,
15 filed on June 15, should also be considered an exhibit to this
16 testimony.

17

18 **II. NON-RECURRING COSTS FOR DARK FIBER**

19

20 **Q. WHAT KINDS OF NON-RECURRING COSTS WILL GTE INCUR**
21 **TO PROCESS ALEC REQUESTS FOR DARK FIBER?**

22 A. GTE will incur costs for pre-ordering, ordering, provisioning, central
23 office and field installation activities associated with ALEC dark
24 fiber requests.

25

1 Q. PLEASE DESCRIBE THE PRE-ORDERING ACTIVITIES FOR
2 DARK FIBER.

3 A. In the pre-ordering stage, GTE must determine whether dark fiber
4 is available on the specific network segment requested by the
5 ALEC. An ALEC's request for dark fiber will fall into one of four
6 categories, according to the portion of GTE's network in which the
7 fiber may lie. These categories are 1) inter-office facilities (IOF); 2)
8 unbundled loop; 3) sub-loop feeder; and 4) sub-loop distribution.

9
10 A pre-ordering request is sent via an Access Service Request
11 (ASR) form, which I will discuss in more detail later in my testimony.
12 This form goes through GTE's National Access Contact Center
13 (NACC), which is GTE's single-point of contact for Access services.
14 The NACC processes inter-exchange carrier (IXC) requests for
15 both interstate and intrastate access – both switched and special. I
16 will describe the functions of the NACC in detail in the ordering
17 section of my testimony.

18
19 The NACC reviews the pre-ordering request and forwards it to the
20 Access Design and Network Design groups located in GTE's
21 Engineering departments. These groups determine the feasibility
22 and availability of dark fiber for a particular network segment/route
23 requested by an ALEC by accessing inventory records and
24 performing verification steps.

25

1 **Q. HOW WERE COSTS DEVELOPED FOR PRE-ORDERING**
2 **ACTIVITIES COMPLETED BY THE NACC AND ENGINEERING**
3 **GROUPS?**

4 A. Subject Matter Experts (SMEs) located in the NACC, Engineering
5 groups located in Florida, and headquarters staff support located in
6 Irving, Texas developed the work times associated with each of the
7 activities performed for pre-ordering dark fiber. The work times
8 were multiplied by the loaded labor rate (LLR) for each work group
9 involved to develop the costs.

10

11 **Q. PLEASE DESCRIBE ORDERING ACTIVITIES ASSOCIATED**
12 **WITH DARK FIBER REQUESTS.**

13 A. As previously discussed, the ALEC will place its order for dark fiber
14 through the ASR process. This process is somewhat different from
15 the ordering process I described in my previously filed Direct
16 Testimony. For the UNEs addressed there, the ALEC would place
17 its order by means of a local service request (LSR) submitted to
18 GTE's National Open Market Center (NOMC). A dark fiber order,
19 however, will be placed through GTE's NACC and processed as an
20 ASR.

21

22 **Q. PLEASE DESCRIBE THE NACC ORDERING PROCESS FOR**
23 **DARK FIBER REQUESTS FROM ALECS.**

24 A. The NACC is located in Durham, North Carolina, and staffed by
25 Service Consultants who interface with customers either manually

1 or electronically, based on how the ALEC submits the ASR. They
2 are the same Service Consultants responsible for processing the
3 IXC ASRs mentioned earlier. The NACC has been in existence for
4 over 25 years in GTE and has a great deal of experience in
5 processing IXC requests for both switched and special services.
6 Once the ASR is received at the NACC, it is checked for
7 completeness and accuracy. The NACC then releases the order
8 into GTE's Access order processing system, which routes it to the
9 appropriate provisioning and central office/field installation groups
10 involved with completing Florida orders.

11

12 **Q. HOW WERE THE COSTS DEVELOPED FOR ASR ORDERING**
13 **ACTIVITIES FOR DARK FIBER?**

14 A. In 1998, GTE, in conjunction with Arthur Andersen LLP, conducted
15 time and motion studies of the activities performed by the Service
16 Consultants in the NACC to establish the work time associated with
17 the various types of orders handled there. Although dark fiber
18 orders, *per se*, were not studied because the offering did not exist
19 at that time, dark fiber orders are processed in the same manner as
20 dedicated non-switched transport orders. To derive the costs
21 associated with dark fiber ordering, GTE has therefore multiplied
22 the work time for the dedicated non-switched transport service
23 order by the LLR for the NACC consultants.

24

25

1 **Q. WHAT ARE THE PROVISIONING ACTIVITIES ASSOCIATED**
2 **WITH DARK FIBER REQUESTS?**

3 A. Dark Fiber ASRs are provisioned through GTE's Business
4 Response Provisioning Center (BRPC) located in Tampa, Florida.
5 The BRPC has Plant Control Office (PCO) and design/engineering
6 responsibilities for Dark Fiber UNEs. The BRPC receives the order
7 from the NACC, verifies that the order is entered into the facility
8 administration system, which is called Telecom Business Solutions
9 (TBS), checks for accuracy and completeness and enters a
10 distribution code into TBS to route the order to the required work
11 groups. The BRPC must access facility records in its inventory
12 database, change the records to identify the network configuration
13 requested by the ALEC and create updated circuit and design
14 layout reports (CLRs/DLRs).

15

16 **Q. HOW WERE COSTS DEVELOPED FOR PROVISIONING**
17 **ACTIVITIES COMPLETED BY THE BRPC?**

18 A. Cost managers used data from the TBS database to determine the
19 number and type of order or lines worked by each group in the
20 BRPC. The BRPC productive hours were used to develop the time
21 per ASR. This work time was multiplied by the LLR for the BRPC
22 to develop the cost.

23

24 **Q. PLEASE DESCRIBE THE CENTRAL OFFICE AND FIELD WORK**
25 **ACTIVITIES ASSOCIATED WITH DARK FIBER REQUESTS.**

1 A. As discussed earlier, there are four types of requests processed via
2 the ASR process that ALECs may submit for Dark Fiber. Following
3 are the activities required for each type:

4 IOE – Central Office jumper connection and disconnection.
5 No field work is required.

6 Unbundled Loop – Central Office jumper connection and
7 disconnection work is required. An outside plant technician
8 must be dispatched to complete the physical connection to
9 the ALEC facility.

10 Sub-loop Feeder – Central Office jumper connection and
11 disconnection work is required. An outside plant technician
12 must be dispatched to complete the physical connection to
13 the ALEC facility.

14 Sub-loop Distribution - Central Office jumper connection and
15 disconnection work is required. An outside plant technician
16 must be dispatched to complete the physical connection to
17 the ALEC facility.

18

19

20 **Q. HOW WERE THE CENTRAL OFFICE AND FIELD WORK COSTS**
21 **DEVELOPED FOR DARK FIBER?**

22 A. For central office costs, "jumper-running" studies were completed to
23 develop the time to place or remove one jumper. The time per
24 jumper was multiplied by the central office technician LLR to
25 develop the cost per jumper activity. Costs are based on the

1 number of jumpers required for each of the services discussed
2 above.

3
4 Outside plant field work time is based on SME estimates of the
5 "drive time" required to reach the point of interconnection and place
6 a fiber jumper. Costs were calculated by multiplying the time for
7 the outside plant activity by the LLR for the outside plant technician.

8

9 **III. NON-RECURRING COSTS FOR SUB-LOOP UNBUNDLING**

10

11 **Q. WHAT TYPES OF NON-RECURRING COSTS WILL GTE INCUR**
12 **TO PROCESS ALEC REQUESTS FOR SUBLOOP**
13 **UNBUNDLING?**

14 A. GTE will incur costs for ordering, provisioning, and central office
15 and field installation activities associated with ALEC sub-loop
16 unbundling requests.

17

18 **Q. PLEASE DESCRIBE THE ORDERING ACTIVITIES**
19 **ASSOCIATED WITH SUB-LOOP REQUESTS.**

20 A. Requests for sub-loops are submitted by ALECs to GTE's NOMC
21 by means of the LSR process I described in my Direct Testimony
22 filed on May 1. (Casey DT at 3-5.) The NOMC receives the LSR,
23 checks it for accuracy and applies all applicable NRCs and MRCs.
24 The NOMC releases the order into GTE's order processing system,
25 which then routes it to the appropriate provisioning and central

1 office/field installation groups involved with completing Florida
2 orders.

3

4 **Q. HOW DID GTE DEVELOP THE NON-RECURRING COSTS**
5 **ASSOCIATED WITH ORDERING ACTIVITIES FOR SUB-LOOP**
6 **UNBUNDLING?**

7 A. To determine the costs for sub-loop ordering, GTE relied upon the
8 exchange-basic ordering process, which is initiated through an
9 LSR. This process is described in my May 1 testimony. (Casey DT
10 at 5-6, 13-14.) Use of the exchange-basic ordering process as a
11 proxy for sub-loop ordering is appropriate because the two
12 processes are the same.

13

14 **Q. PLEASE DESCRIBE THE PROVISIONING ACTIVITIES**
15 **ASSOCIATED WITH SUB-LOOP REQUESTS.**

16 A. There are four categories of requests for sub-loops: 1) main
17 distribution frame (MDF) connection; 2) feeder connection; 3)
18 distribution connection; and 4) serving terminal connection. These
19 categories correspond to different portions of GTE's network that
20 ALECs can request, on an unbundled basis, from GTE.

21

22 For each of these requests, GTE's Facility Assignment Center
23 (FAC) must access facility records in its inventory database and
24 change the records to identify the network configuration requested
25 by the ALEC.

1

2 **Q. HOW WERE COSTS DEVELOPED FOR PROVISIONING**
3 **ACTIVITIES COMPLETED BY THE FAC?**

4 A. GTE tracks activities based on the number of times the FAC
5 accesses an order to provision it. These activities are referred to
6 as "touches" and the costs are based on the "touches" per order.
7 This activity measure was collected by the cost managers from
8 GTE's National Order Collection Vehicle (NOCV) based on the
9 number of "touches" for various order types. The total of productive
10 minutes of the FAC for "service order touches" is divided by the
11 total number of "touches" to create the "minutes per touch"
12 calculation. The "cost per touch" is calculated by multiplying the
13 "minutes per touch" by the loaded labor rate for the FAC.

14

15 **Q. PLEASE DESCRIBE THE CENTRAL OFFICE AND FIELD WORK**
16 **ACTIVITIES ASSOCIATED WITH SUB-LOOP REQUESTS.**

17 A. As discussed earlier, there are four types of requests ALECs may
18 submit for sub-loops. Central office and field work activities vary
19 with the type of request. MDF and sub-loop feeder requests
20 require central office jumper connection and disconnection. Sub-
21 loop distribution requires an outside plant technician to complete
22 the physical connection to the ALEC facility. Field work will be
23 required for some MDF requests, as well. For serving terminal
24 requests, no central office work is required, but an outside plant
25 technician must always be dispatched.

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Q. HOW WERE THE CENTRAL OFFICE AND FIELD WORK COSTS DEVELOPED FOR SUB-LOOP UNBUNDLING?

A. For central office costs, "jumper-running" studies were completed to develop the time to place or remove one jumper. The time per jumper was multiplied by the central office technician's LLR to develop the cost per jumper. Costs are based on the number of jumpers required for each of the service categories discussed above.

Outside plant field work time was determined by a special sub-loop unbundling drive time and work activity study. Costs were calculated by multiplying the time for the outside plant activity by the LLR for the outside plant technician.

IV. NON-RECURRING COSTS FOR ENHANCED EXTENDED LINKS

Q. WHAT KINDS OF NON-RECURRING COSTS WILL GTE INCUR TO PROCESS ALEC REQUESTS FOR EELS?

A. GTE will incur costs for ordering, provisioning, central office and field installation activities associated with ALEC EEL requests.

Q. HOW DID GTE DETERMINE THE ACTIVITIES AND RESULTING NON-RECURRING COSTS ASSOCIATED WITH PROCESSING EEL REQUESTS?

1 A. EEL requests are processed in the same manner as dark fiber
2 requests. Therefore, my earlier discussion of activities and cost
3 determination for dark fiber requests applies equally to EEL
4 requests.

5

6 **V. NON-RECURRING COSTS FOR UNBUNDLED NETWORK**

7

ELEMENT PLATFORM

8

9 **Q. WHAT KINDS OF NON-RECURRING COSTS WILL GTE INCUR**
10 **FOR PROCESSING ALEC REQUESTS FOR UNE-P?**

11 A. GTE will incur costs for ordering and provisioning. This type of
12 order does not require central office or field installation activities.

13

14 **Q. PLEASE DESCRIBE ORDERING ACTIVITIES ASSOCIATED**
15 **WITH UNE-P REQUESTS.**

16 A. UNE-P ordering applies when the ALEC requests conversion of
17 existing services: retail or resale to UNE-P. The UNE-P order will
18 take the form of a "Migration" order. There are three types of
19 "Migration" orders:

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1 "Migration as Is" – This order type occurs when an
2 existing end user customer changes service from
3 GTE to an ALEC, or from an ALEC to another ALEC,
4 and the end user keeps the same service. This type
5 of order requires only the ordering function and facility
6 provisioning; it does not require central office or field
7 installation activities. It is applicable only to Plain Old
8 Telephone Service (POTS).

9
10 "Migration as Is +/-" – This order type differs from a
11 "Migration As Is" order only in that the end-user wants
12 to add or delete a vertical feature from his existing
13 service. The central office switch must be updated for
14 the requested feature change.

15
16 "Migration as Specified" – This order type occurs
17 when the end-user converts a portion of his GTE retail
18 services (at a single location) to UNEs provided by an
19 ALEC. The ALEC specifies the services and service
20 arrangements to be migrated.

21
22 The ordering activities are handled by the NOMC via the LSR
23 process, as I have previously described in my testimony.

24
25

1 **Q. HOW WERE COSTS DEVELOPED FOR ORDERING ACTIVITIES**
2 **ASSOCIATED WITH UNE-P REQUESTS FROM ALECS?**

3 A. Work time studies were conducted during August 1999 in the
4 NOMC for Resale Migration orders currently being processed in the
5 NOMC, since these processes are the same as those that will be
6 used for processing UNE-P requests. The work times were
7 multiplied by the LLR for the NOMC to develop the costs.

8

9 **Q. WHAT ARE THE PROVISIONING ACTIVITIES ASSOCIATED**
10 **WITH UNE-P REQUESTS?**

11 A. Provisioning activities include facility assignment and switch
12 translations (if required). As previously described, the FAC
13 activities relate to "touches" required to process an ALEC request.

14

15 **Q. HOW WERE COSTS DEVELOPED FOR PROVISIONING UNE-P**
16 **REQUESTS?**

17 A. As previously described, GTE developed the minutes per
18 occurrence based on the number of "touches" in the FAC. The
19 *probability of occurrence that an order would require provisioning*
20 *work was applied, because not all UNE-P orders require*
21 *provisioning activity. Many UNE-P orders can be provisioned*
22 *mechanically from network components in inventory without human*
23 *intervention. Additionally, simple "migration" orders from resale to*
24 *UNE-P can be completed without human intervention. For*
25 *example, a "Migration as Is" requires no switch translations, since*

1 there are no changes to the network features. Only a small
2 percentage of these orders fall-out for manual order completion into
3 the ordering system. However, more complex services, such as
4 “Migration as Specified” orders, require more manual provisioning
5 due to switch translations, routing instructions, and service
6 arrangements.

7

8 The work time per touch was weighted by the probability of
9 occurrence and multiplied by the LLR for the FAC to determine the
10 costs associated with each type of migration order.

11

12

VI. CONCLUSION

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14 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

15 A. GTE has developed a comprehensive non-recurring cost study that
16 conforms to the TELRIC economic principles and addresses all of
17 the non-recurring activities necessary to provide UNEs to ALECs.
18 The Commission should approve these costs for use in pricing
19 GTE’s unbundled dark fiber, sub-loops, EELs, and the UNE-P.

20

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

22 A. Yes.

23

24

25