

## VERIZON NORTHWEST INC.

### Bench Request No. 22 (Verizon)

#### General instructions

To the extent possible please provide all responses in electronic format on cd(s).

#### Part One

It appears that the 'How to...' files that Verizon provided the Commission in response to Bench Request 16 were developed (or based on templates developed) prior to the Bench Request being issued.<sup>1</sup> We assume that Verizon uses these types of step-by-step files to train its own staff on VzCost or that it developed such files in anticipation of requests from third parties and/or regulatory commissions.

Please provide all of the 'How to...' files Verizon has developed in support of VzCost so that the Commission can implement and evaluate the changes discussed below. If multiple versions of a process have been produced (e.g., three versions of the file that explains how to change the fiber/copper crossover point), only provide the latest version of the documentation associated with the version of VzCost that is being considered in this proceeding.

In addition, please provide any written instructions or other materials used to train Verizon's staff or third parties in the use of VzCost.

Please be sure that your response includes (preferably in detail comparable to Verizon's response to Bench Request No. 16) instructions on how to make the following adjustments in VzCost. If an adjustment specifies 'by density zone' but the model does not allow for density zone specific inputs please explain how to make the adjustment on a statewide basis.

1. Adjust the maximum fiber and copper cable sizes used by VzCost.
2. Adjust the source and/or value of the productivity and inflation inputs used by VzCost.
  - a. For example, assume productivity increased by 5% in 2000 and 4% in 2001.
  - b. For example, assume inflation increased by 3% in 2000 and 2% in 2001.
  - c. Please explain how to utilize different productivity indices and values.
  - d. Please explain how to utilize different inflation indices and values.
3. Adjust and/or eliminate the level of expense in certain accounts, for example Account 6533 marketing expense.
  - a. Please explain how to reduce the level of expenses, for example, in an account by 45%.
4. Non-switched private lines

---

<sup>1</sup> For example, see Verizon Response to Bench Request 16 (Exh 1166) How to Change Depreciation Livesv3.1.1.doc at page 70.

- a. Assign non-switched private lines to distribution terminals and LUIDs consistent with Exhibit 751TC, pages 48-52.
  - b. Adjust VzCost so that it assumes 4 lines per location. That is, each drop and NID will serve 4 lines.
5. Plant mix assumptions
- a. Adjust plant mix by density zone (where applicable, please use in your example the plant mix assumptions adopted in the FCC Inputs Order<sup>2</sup>).
  - b. Adjust and/or eliminate the maximum number of aerial and buried cables in a cable segment. For example, the model is currently set up to shift plant underground if there are more than 3 aerial cables or 2 buried cables in a segment. Please explain how these restrictions could be adjusted or removed.
6. Structure sharing
- a. Adjust the amount of plant placed in a trench [or any structure] provided by a developer or other third party. In your example please use the assumption that 10% of distribution plant is placed in a trench provided by a developer or third party.
  - b. Adjust structure sharing assumptions by density zone (where applicable please use in your example the sharing assumptions adopted in the FCC Inputs Order) with respect to:
    - i. Aerial facilities.
    - ii. Buried facilities.
    - iii. Underground facilities.
    - iv. Drops.
    - v. Sharing between interoffice and loop facilities.
    - vi. Sharing between feeder and distribution facilities.
7. Drops
- a. Adjust drop lengths by density zone.
  - b. Adjust drop structure mix by density zone.
  - c. Adjust the number of pairs per location by residential and business customer.
8. Adjust pole spacing by density zone.
9. Adjust the material prices and placement costs for
- a. Copper cable.
  - b. Fiber cable.
  - c. Poles.
10. Adjust the amount of bored cable and hand dug trench by density zone.
11. Adjust the copper/fiber crossover point.
12. Adjust the engineering factors used in VzCost.
13. Adjust the sizing factors for fiber and copper cables by density zone.
14. Adjust switching fill factors.
15. Adjust the amount of busy hour traffic per trunk, and thus, the number of interoffice trunks.

---

<sup>2</sup> In the Matter of Federal-State Joint Board on Universal Service CC Docket No. 96-45 and Forward-Looking Mechanism for High Cost Support for Non-Rural LECs CC Docket No. 97-160. Tenth Report and Order, released November 2, 1999. ("FCC Inputs Order") See Appendix A.

16. Adjust the sizing factor for IOF and/or require the model to assume a given fill level, for example, 47%.
17. Adjust the ratio of IDLC to UDLC loops, for example 7% UDLC.
18. Adjust the level of DLC Installation costs (see Exh. No. 228TC 130 (erratum) (filed May 26, 2004)).

### **Part Two**

Regarding the Data Tables in VzCost, how do the tables whose names are listed in *ALL\_CAPS* differ from those listed in *Upper\_and\_Lowercase*?

### **Part Three**

Regarding the general operation and flow of the model:

Please provide a flow chart indicating the dependencies for all of the tables listed in the pull down menu on the left hand side of VzCost's Data Management screen.

Please provide the order of operations to follow (comparable to the Summary of Procedure shown on page one of the 'How to...' files in response to Bench Request 16) assuming the Commission adjusts VzCost in each area referenced above in Part One.

### **RESPONSE:**

Verizon Northwest Inc. ("Verizon NW") is providing this initial, partial response to Part One (subparts 2, 3, 12, 14-16), Part Two, and Part Three. Responses to the additional subparts will be provided on December 22, 2004.

### **Part One**

The "How to..." files that Verizon NW has developed in support of VzCost can be found on Bench Request No. 22, CD No. 1, in the Folder named "Training Material\_Scripts\_Examples." The names of those files are listed below. The names of the files can also be found on the CD index, provided with this response.

- **Creating a Table – COM.doc**
- **Editing a BC Family.doc**
- **How to Change Depreciation Factors.doc**
- **Rerun Filing.doc**
- **Training Script Volume 1.doc**
- **Training Script Volume 2.doc**
- **VzCost Demo for Gable.doc**
- **VzCost Flowchart WA.doc**
- **VzLoop Checklist w\_ECF Report.doc**
- **VzLoop Checklist.doc**

Additionally, the User Manual, provided with the June 2003 direct case filing on CD No. 2, is a resource for understanding how to use VzCost.

**Subpart 2**

Attached is a step-by-step instruction on how to change any input on the Inflation\_Indices table. The "script" file is called, "How to Change Productivity & Inflation Indices.doc." It is on Bench Request No. 22, CD No. 1, in the Folder "Factor\_Productivity Expense Adjust Instructions." This document will help any user input any productivity or inflation index that the user would like to use in the cost studies for any period. The user can edit the source name also in the same way that Verizon NW shows to edit a value. "Editing" a table works the same for any of the inputs in any of the tables.

With respect to subparts 2(c) and 2(d), the Expense Factor Run utilizes the productivity and inflation indices within a predefined, VzCost "custom formula." As the script describes, the Account\_Inflation table provides the map of each expense account to a specific inflation index and to the productivity index. For some accounts, Verizon NW uses the Bureau of Labor Statistics (BLS), non-farm business inflation index and for other accounts it uses the Consumer Price Index ("CPI"). Verizon NW applies the BLS' non-farm productivity index to all expense accounts. Please note that the productivity factor is entered as a negative number, since it deflates expenses.

Both inflation and productivity are applied by multiplying the vintage (or baseline) expense data by  $(1 + \text{Inflation}) * (1 + \text{Productivity})$  for each year of the planning period. Also, in the planning period inflation factor, the financial levelization process is applied in the predefined custom formula to average planning period inflation/productivity over the period, which is normally over three years. Therefore, when implementing an expense factor run it is important to designate the data vintage, first year of study, and planning period correctly in the assumption drop down list of the Expense Run, so that the custom formula picks the correct index for the years required over the planning period.

To use different inflation and/or productivity factors than what Verizon NW has proposed, a user needs to first determine what inflation/productivity factors he or she wants to use and from what source. The user can then follow the step-by-step instructional script that is provided in the file named above to edit the inflation and productivity indices Verizon NW used.

**Subpart 3**

Attached is a step-by-step instruction on how to change the level of expenses in the Expense Factor Runs within the VzCost model. The "script" file is called, "How to Adjust or Eliminate Expense.doc." It can be found on Bench Request No. 22, CD No. 1, in the folder "Factor\_Expense Adjust Instructions."

If a user wants to eliminate or adjust expenses from all the cost studies, assuming that the expense will be non-existent in the forward-looking model, the adjustment can be made in an input table called Expense Adjustment. However, if a user wants to redirect expenses to one area of the business versus another, then the adjustment can be made in a table called Cost Pool Allocations. This alternate solution allows the user to adjust the expense for certain cost pools yet drive that expense to an alternate cost pool because it will not be completely eliminated in all cost studies. When a user eliminates an expense entirely in the studies, the expense will not be included in any numerators or denominators in the

factors. Alternatively, if a user adjusts expenses using the cost pool methodology, the cost pool distribution will change (or adjust) only the numerators of certain factors; however, the cost will still be included in the denominators for expense recovery of items like Marketing and Common Overhead.

The reason that Verizon NW is providing the two scenarios is because of the specific example in this bench request of Account 6533. Account 6533 is testing, and testing is a good example of when a user would not want to adjust the expense account for ALL studies, but include only a portion of the account for some studies and include only a portion of the account for others. For UNE testing, Verizon NW wants to avoid the Trouble Report Testing in Account 6533 for *most* UNEs. However, the EEL UNE cost should include the additional testing expense because Verizon NW will provide trouble report processing for EELs. Therefore, instead of eliminating the expense entirely in an Expense Adjustment, Verizon NW makes the expense adjustment in the cost pool allocation by creating two cost pools for testing: Testing and EEL Testing. Since most UNEs only use the Testing associated with the Testing Cost Pool, they will benefit from the allocation percentage sent to just Testing. Only the EEL UNE will capture the expense in the EEL Testing cost pool. In this way, Verizon NW has adjusted testing for 99% of the individual studies.

To use different expense adjustments or cost pool allocation factors than what Verizon NW proposes, a user needs to first determine what adjustments he or she wants to use and from what source (this determination is made outside the model). And, then the user can follow the step-by-step instructional script that is provided in the file named above.

Expense adjustments and assumptions are based on special studies outside of VzCost. All adjustment studies can be found in the backup documentation files for the factors and loadings. Each percentage adjustment study is not mutually exclusive. This means that if a special study advises that the NRC adjustment should be 30% of the account, and another independent study says that the retail avoided study shows that the account should be reduced by 50%, the result is not a total 80% adjustment. In VzCost, both the 30% and 50% are inputs to the expense adjustment table, and the math will calculate the final number by using the following formula:

$$\$100 \times (1-30\%) \times (1-50\%) = \$35$$

This is because some of the 30% (NRC adjustment) is retail-related costs and some of the 50% (retail adjustment) is NRC costs. Taking a full 80% reduction would overstate the adjustment because of the overlap in expense adjustments. When developing the adjustments for specific accounts to be input into VzCost, these facts must be considered before making changes to the adjustment tables.

### **Subpart 12**

Engineering factors are stored in the "EFILoad" table in VzCost. Instructions for changing an EFILoad table are in the document named "Training Script Volume 2," section IV, page 54. This document can be found on Bench Request No. 22, CD No. 1, in the folder labeled "Training Material\_Scripts\_Examples."

**Subpart 14**

The instructions in response to Subpart 14 can be found on Bench Request No. 22, CD No. 1, in the folder "Switching Adjustment Instructions," document named "Bench Req22 Part 14 (change switching fills).doc."

**Subpart 15**

The instructions in response to Subpart 15 can be found on Bench Request No. 22, CD No. 1, in the folder "Switching Adjustment Instructions," in the document named "Bench Req22 Part 15 (change trk CCS).doc."

**Subpart 16**

The instructions in response to Subpart 16 can be found on Bench Request No. 22, CD No. 1, in the folder "IOF Adjust Instructions," in the document named "IOF\_Fill\_AdjustInst.doc."

**Part Two**

Naming the Data Table with ALL\_CAPS instead of Upper\_and\_Lowercase names plays no role in what the tables represent. Different naming conventions were used by different users doing the initial construction of the tables.

**Part Three**

Several flow charts regarding VzLoop in response to Part Three of the above request can be found on Bench Request No. 22, CD No. 1, in the folder named "WA UNE Bench Req22\_VZ Resp\_Part Three," subfolder "Data Dependency."