

BEFORE THE  
POSTAL RATE COMMISSION  
WASHINGTON, D.C. 20268-0001

EVOLUTIONARY NETWORK DEVELOPMENT  
SERVICE CHANGES, 2006

Docket No. N2006-1

RESPONSES OF UNITED STATES POSTAL SERVICE WITNESS SHAH  
TO VALPAK INTERROGATORIES (VP/USPS-T1-1 THROUGH 5)  
(April 12, 2006)

The United States Postal Service hereby submits the response of witness Shah to the following interrogatories of Valpak, filed on March 23, 2006: VP/USPS-T1-1 through 5. The interrogatories are stated verbatim and followed by the responses.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS SHAH  
TO INTERROGATORY OF VALPAK**

**VP/USPS-T1-1.** Please refer to your testimony at page 9, lines 14-17, where you discuss optimization models used in the Evolutionary Network Development (“END”) modeling approach.

- a. Do the optimization models all use the same objective function? If not, how many different objective functions are used?
- b. Is service, service quality, or some variant thereof, ever used as an objective function? If not, please explain why not.

**RESPONSE:**

- a. Yes
- b. No. service standards are used as constraints within the model.

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**VP/USPS-T1-2.** Please refer to your testimony at page 9, lines 18-21, where you discuss simulation models used to conduct “what if” scenarios in the END modeling approach.

- a. Has the Postal Service conducted any simulations designed to study WHAT the transportation requirements would look like IF destination entry discounts were to be offered to bulk First-Class Mail?
- b. If any such simulation has been conducted, please explain whether such discounts would be expected to have a substantial impact on the postal transportation network. If no such simulation has been conducted, please explain why not.

**RESPONSE:**

- a. The END models have not been used to evaluate this alternative.
- b. No simulation has been conducted. The objective of END to this point has been to re-align the network under existing rates and classifications.

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**VP/USPS-T1-3.** At page 11 of your testimony (ll. 10-12), you state that “[c]urrently, packages are often processed on separate networks based on their class (i.e., Standard Mail in one location and Priority Mail in another).” Does this statement mean that the Postal Service is contemplating joint processing of Standard Mail packages together with Priority Mail flats and packages? If not, please explain what it does mean.

**RESPONSE:**

The Postal Service may or may not process multiple package classes together.

The decision would be based on operating plan and applicable service standards.

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**VP/USPS-T1-4.** Please refer to your testimony at page 2, line 10, where you state that “over 450 facilities process ... mail each day....” Of the 450 facilities to which you refer, how many are P&DCs?

**RESPONSE:**

Please refer to the response of OCA/USPS-T1-8.

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**VP/USPS-T1-5.** Please refer to your response to APWU/USPS-T1-3(d), where you state that each optimization model includes “Cost — The mail processing costs associated with a given amount of workload, as well as the fixed costs of a given facility.” Also, please refer to library reference USPS-LR-N2006-1/7 (General Accountability Office Audit Report, GAO-05- 261), Highlights page, chart titled “Total Pieces Handled per Person per Hour in Processing Plants for Fiscal Year 2004,” showing extremely wide variations both within plants of a similar size, as well as between plants of different sizes.

- a. Do any of your optimization models include the actual productivity and costs for individual facilities? Please explain what they include with respect to actual costs as indicated by the GAO data.
- b. If your optimization models do not contain actual costs and productivities for individual facilities, please explain (i) how you can hope to consolidate mail to the more efficient facilities, and away from the less efficient facilities, and (ii) what is being optimized under circumstances where you use “averages” that may be totally inapplicable to the facilities in question.

**RESPONSE:**

- a. The cost functions within the optimization were based on shape-based cost functions that predict how costs will change under different facility configurations. The methodology mirrors the existing product cost methodology used by Finance for production of the Cost & Revenue Analysis report. The END cost functions are based on the cost equations used by USPS Finance Department for product costing and are developed on the basis of a 7-year history at different facilities. The structural equations account for wage changes, productivity trends, network responsibilities, amount of equipment and plant-specific effects. The functions are shape-based, and include both direct and allied operations, measuring the relationship between hours and piece handlings. They are developed based on creating a linear approximation of the structural equations by finding the marginal cost solution for input into the

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**RESPONSE to VP/USPS-T1-5 (continued)**

- optimization model. This is then reconciled to actual accounting costs from the Postal Service Financial Reports (see the response to OCA/USPS-T1-9) to account for costs that cannot be directly attributed to the cost pools modeled.
- b. (i-ii) The objective of the optimization is to achieve economies of scale by maximizing the utilization of available capacity. The cost functions are designed to represent the fixed and variable cost of specific mail processing operations in three size categories small, medium and large. The model will maximize the utilization of larger facilities given the incremental cost of adding volume to a large operation is less than a small and medium operation.