

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 INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE
(OCA/USPS-T1-29 THROUGH 34)
(June 30, 2006)

The United States Postal Service hereby submits the responses of witness Shah to the following interrogatories of the OCA filed on June 12, 2006: OCA/USPS-T1-29 through 34. Each interrogatory is stated verbatim and followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux
Chief Counsel, Ratemaking

Michael T. Tidwell

475 L'Enfant Plaza West, S.W.
Washington, D.C. 20260-1137
(202) 268-2998; Fax -5402
michael.t.tidwell@usps.gov

**RESPONSE OF THE UNITED STATES POSTAL SERVICE
TO INTERROGATORY OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T1-29. Please refer to your response to OCA/USPS-T1-13. In the response to OCA/USPS-T1-13(a) you state, “Where necessary, the END models recommend the need to invest in new facility infrastructure based on future network requirements.” Please explain the way in which the models “recommend” the need to invest. For instance, do models actually list the optimum facility capacity at a known address for each current location and the processing equipment needed for optimum efficiency at each location, or does the output of the models merely list the optimum network configuration at some unknown location to be determined for optimum efficiency and volumes of the various mail classes that would be processed at that unknown location if the system is optimized, after which management must determine the facility location and the amount of equipment necessary to process the volume of mail “recommended” by the END models?

RESPONSE

The desired objective of the modeling is to utilize existing infrastructure as much as possible. In order for the model to solve for when required capacity exceeds available capacity, a very costly expansion variable can be used by the model.

The current approach is designed to force the model to search for less expensive solutions first. Should the model return a solution requiring that an existing facility be expanded beyond its current capacity, that is an indication that an expanded or new facility may need to be considered. The models list the optimum facility capacity at a known address for each current location and the processing equipment needed for optimum efficiency at each location.

**RESPONSE OF THE UNITED STATES POSTAL SERVICE
TO INTERROGATORY OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T1-30. Please refer to the response to OCA/USPS-13(d) where you state “there will be instances where the model will recommend changing current service standards to achieve an optimal network.”

- a. Please explain exactly how the output of the model expresses the recommendation to change current service standards. For instance, does the output actually list the new service standards for only those 3-digit ZIP Code pairs that will be different if the network recommended is implemented or does it list the service standards for all 3-digit ZIP-Code pairs impacted by the analysis, whether or not modified.
- b. Does the model recommend changing current service standards for any class of mail other than First-Class? If so, what other mail classes do the recommendations cover?

RESPONSE:

- a. The results of the simulation model will indicate the performance of the proposed network developed by the optimization model. This performance can be used to determine which service standards could be considered for adjustment.
- b. No the model does not recommend changes, the resulting are an impact of the proposed network. See my testimony at pages 13-14

**RESPONSE OF THE UNITED STATES POSTAL SERVICE
TO INTERROGATORY OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T1-31. Please refer to OCA/USPS-T1-27. The interrogatory requested a sample copy of the output produced from a run of the END optimization model that led to one of the consolidations in LR-L-N2006-1/5 or 6 or, if not available, a current run with redactions of names and identifying characteristics. The response, “The output was the identification of the opportunity” does not respond to this interrogatory. It is neither a copy of the output nor the alternative, nor does it provide an understanding of the manner in which the output is presented. That is, what is the output (the exact language) that identifies the opportunity. This follow-up interrogatory is to again request a copy of the output of the optimization model in order to determine the extent of the information available to the Postal Service after running this part of the END model.

RESPONSE:

The optimization output was described in USPS-L/R-9, at Slide 17. Attached is an example of how the optimization output is presented.

SolutionSummary

Description	Data
Scenario Name	GeneratedScenario_20050619
Solution Name	solution1
Solver Run Time	01:28:07
Optimization Gap	53.91%
Run Type	Minimize Cost
Profit = Revenue - Cost	XXXX
Income recieved by meeting demand	XXXX
% of demand satisfied	XXXX
Number of Warehouses Picked	XXXX
Number of Primary Warehouses Picked	XXXX
Number of Warehouses Used	XXXX
Number of Pre-Existing Warehouses	XXXX
Number of Active Plants	XXXX
Number of Pre-Existing Plants	XXXX
Number of Plants Picked	XXXX
Number of Plants Used	XXXX
Number of Active Lines	XXXX
Number of Pre-Existing Lines	XXXX
Number of Lines Picked	XXXX
Number of Lines Used	XXXX
Number of Active Customers	XXXX
Customers With Demand	XXXX
Number of Active Products	XXXX
Products With Demand	XXXX
Number of Fixed Plants	XXXX
Number of Fixed Lines	XXXX
Number of Fixed Warehouses	XXXX
Number of Potential Plants	XXXX
Number of Potential Lines	XXXX
Number of Potential Warehouses	XXXX
Number of Potential Plants Picked	XXXX
Number of Pre-Existing Plants Picked	XXXX
Number of Potential Lines Picked	XXXX
Number of Pre-Existing Lines Picked	XXXX
Number of Potential Warehouses Picked	XXXX
Number of Pre-Existing Warehouses Picked	XXXX
Number of Secondary Warehouses Picked	XXXX
Minimum Warehouses	XXXX
Maximum Warehouses	XXXX
Minimum Primary Warehouses	XXXX
Maximum Primary Warehouses	XXXX
Minimum Secondary Warehouses	XXXX
Maximum Secondary Warehouses	XXXX
Maximum Plants	XXXX
Minimum Plants	XXXX
Minimum Lines	XXXX
Maximum Lines	XXXX
Sub-Structure Enhancements Enabled	XXXX
Standard Enhancements Enabled	XXXX
Weighted Avg Dist from Plant to Plant	XXXX
Weighted Avg Dist from Warehouse to Plant	XXXX
Weighted Avg Dist from Plant to WH	XXXX
Weighted Avg Dist from WH to WH	XXXX
Weighted Avg Dist from WH to Cust	XXXX
Currency	\$
Model Time	yr
Transit Time	wk
Units	items
Inv Volume	sq ft
Trans Volume	sq ft
Weight	lbs.
Miles or Km	Mile
Plant to Plant Shipping Cost	XXX
Plant to Warehouse Shipping Cost	XXX
Warehouse to Warehouse Shipping Cost	XXX
Warehouse to Customer Shipping Cost	XXX
Warehouse to Plant Shipping Cost	XXX
Warehouse to Plant Var/Hold Cost	XXX
Warehouse to Warehouse Var/Hold Cost	XXX
Warehouse to Customer Var/Hold Cost	XXX
Duty/Tariff Cost	XXX
In Transit Holding Cost	XXX
Production Cost	XXX
Plant Fixed Cost	XXX
Warehouse Fixed Cost	XXX
TOTAL COST	XXX

CostSummary

COST DESCRIPTION	COST
Plant to Plant Shipping Cost	XXXX
Plant to Warehouse Shipping Cost	XXXX
Warehouse to Warehouse Shipping Cost	XXXX
Warehouse to Customer Shipping Cost	XXXX
Warehouse to Plant Shipping Cost	XXXX
Warehouse to Plant Var/Hold Cost	XXXX
Warehouse to Warehouse Var/Hold Cost	XXXX
Warehouse to Customer Var/Hold Cost	XXXX
Duty/Tariff Cost	XXXX
In Transit Holding Cost	XXXX
Production Cost	XXXX
Plant Fixed Cost	XXXX
Warehouse Fixed Cost	XXXX
TOTAL COST	XXXX

WarehouseSolution

ID	Warehouse	Status	Type	WH Size	WH Size Used	Units
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX
26030	LPC Facility-RDC Facility	Potential	Secondary	XXXX	XXXX	XXXX

PlantSummary

ID	Plant	Status	Units	Shipping Cost	Production Cost	Fixed Opening Cost	Fixed Operating Cost	Fixed Closing Cost	Hours Used	Available Hours	Percent Hours Used
X	LPC Facility-RDC Facility	Potential	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
X	LPC Facility-RDC Facility	Potential	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
X	LPC Facility-RDC Facility	Potential	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
X	LPC Facility-RDC Facility	Potential	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

LineSummary

Plant ID	Plant Name	Line ID	Line Name	Line Status	Units	Shipping Cost	Production Cost	Fixed Opening Cost	Fixed Operating Cost	Fixed Closing Cost	Hours Used	Available Hours	Percent Hours Used
X	LPC Facility-RDC Facility	X	Plant XX-LPC-Regular Capacity	Potential	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
X	LPC Facility-RDC Facility	X	Plant XX-LPC-Feasibility Capacity	Potential	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

ProductSummary

ID	Product Name	Production Cost	Units Produced	Plant-Plant Shipping Cost	Plant-Plant In Transit Holding Cost	Plant-WH Shipping Cost	Plant-WH In Transit Holding Cost	WH-Plant Shipping Cost	WH-Plant Var/Hold Cost	WH-Plant In Transit Holding Cost	WH-WH Shipping Cost	WH-WH Var/Hold Cost	WH-WH In Transit Holding Cost	WH-Customer Shipping Cost	WH-Customer Var/Hold Cost	WH-Customer In Transit Holding Cost
1	LPG	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
2	RDC	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

TimePeriodSummary

Time Period ID	Time Period	Plant to Plant Transportation Cost	Plant to Warehouse Transportation Cost	Warehouse to Plant Transportation Cost	Warehouse to Warehouse Transportation Cost	Warehouse to Customer Transportation Cost	Warehouse to Plant Var/Hold Cost	Warehouse to Warehouse Var/Hold Cost	Warehouse to Customer Var/Hold Cost	Duty Tariff Cost	In-Transit Holding Cost	Production Cost	Plant,Line Fixed Cost	Warehouse Fixed Cost	Total Cost	Units Produced	Units Consumed
----------------	-------------	------------------------------------	--	--	--	---	----------------------------------	--------------------------------------	-------------------------------------	------------------	-------------------------	-----------------	-----------------------	----------------------	------------	----------------	----------------

**RESPONSE OF THE UNITED STATES POSTAL SERVICE
TO INTERROGATORY OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T1-32. Please refer to the response to APWU/USPS-T1-23. The response indicated new facilities not yet constructed “are not handled in the context of the END models.”

- a. Please explain the meaning of one sentence of the response, “The model takes existing infrastructure points to specific location and quantities based on workload.”
- b. Please confirm that the END model will not provide detailed guidance necessary for determining the locations of new RDC facilities not yet constructed.
- c. Please confirm that a computer model different from the END model, if any, will be utilized to determine the location, size and other characteristics of RDCs not yet constructed.

RESPONSE:

- a. The sentence relates to the END model determining the capacity required at an existing infrastructure point at an existing location based on the amount of workload require to be processed. See the response to OCA/USPS-T1-29.
- b-c. It is confirmed that the END models do not determine the sites where new RDCs would be constructed. Identification of potential RDCs among existing facilities is a function of optimization modeling, based on model inputs designed to represent general RDC characteristics. These same inputs would be used in guiding the designing any newly constructed RDCs.

**RESPONSE OF THE UNITED STATES POSTAL SERVICE
TO INTERROGATORY OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T1-33. Please refer to your response to APWU/USPS-T1-25(b) in which you indicate the “RDC planning concept document” is “a network transition and implementation document” rather than one in which a decision is made about whether a facility should become an RDC.

- a. What document(s) will be used to determine whether a facility should become an RDC?
- b. Please provide the document(s) if they have not already been provided in this proceeding.

RESPONSE:

- a. The END model is used to identify potential RDCs, based on existing the facility inventory. The ultimate decisions as to which existing facilities should become RDCs, or whether new RDCs should be constructed, will be made by postal management, based upon its judgments regarding the needs of the postal network. An iterative process of Headquarters and Area level consultations among senior postal managers will ultimately determine which facilities become RDCs. The RDC planning concept document will resemble the AMP Worksheets. Once a decision is made to designate a particular facility as an RDC, then a series of Worksheets will be completed to identify changes that would result from activation of that RDC: identification of its service area and subordinate facilities; shifts in workload, volume, equipment and employees to the RDC; changes in related surface and air transportation; changes in DMM labeling lists; and any changes in service standards currently applicable to affected 3-digit ZIP Code pairs.

**RESPONSE OF THE UNITED STATES POSTAL SERVICE
TO INTERROGATORY OF THE OFFICE OF THE CONSUMER ADVOCATE**

RESPONSE to OCA/USPS-33 (continued):

- b. There is not expected to be any document outlining that a facility specifically meeting criteria “A through Z” becomes an RDC, while a facility only meeting criteria “A through T” does not.

**RESPONSE OF THE UNITED STATES POSTAL SERVICE
TO INTERROGATORY OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T1-34. Please refer to APWU/USPS-T1-24(c). Will newly leased facilities be renovated to a standardized footprint?

RESPONSE

Every new facility will be renovated to standardized requirements and the layout will reflect standard mail flow concepts. However, the actual layouts and footprints of the buildings will vary on the basis of building configuration differences and distinct operational needs of each building.