Postal Rate Commission
Submitted 6/9/2006 3:56 pm
Filing ID: 49447
Accepted 6/9/2006

UNITED STATES OF AMERICA
POSTAL RATE COMMISSION
WASHINGTON, DC 20268-0001

Evolutionary Network Development
Service Changes

Docket No. N2006-1

PRESIDING OFFICER'S INFORMATION REQUEST NO. 5

(Issued June 9, 2006)

The United States Postal Service is requested to provide the information described below to assist in developing a record for the consideration of the Postal Service's request for an advisory opinion. In order to facilitate inclusion of the required material in the evidentiary record, the Postal Service is to have a witness attest to the accuracy of the answers and be prepared to explain to the extent necessary the basis for the answers at our hearing. The answers are to be provided by June 23, 2006.

1. Refer to the Responses of the United States Postal Service to Presiding Officer's Information Request No. 3, question 1.
   a. The response to part c. states that "[t]he number of facilities where single-piece mail currently receive[s] an incoming sort will not remain unchanged." In the current network, are there any instances where different facilities perform incoming sorts for the same 5-digit ZIP Code?
      i. If so, how many? Under what circumstances would this occur?
      ii. If not, how will the number of sort schemes be reduced by increasing the opportunity to "pack" machines as stated in the response to part d.?
   b. The response to part f. states that the Service assumes the average hourly throughput achieved for machines will not change between the current and future network. The response to part k. (the same question except related to outgoing rather than incoming processing) implies that

the average hourly throughput achieved would go up because more mail will be processed throughout the processing window.

i. Is the answer to part k. referring to machine average hourly throughput achieved? If not, what is it referring to?

ii. In the current network are machines used in outgoing processing run at less than full speed? If so, why?

iii. Why does the Service assume that average hourly throughput achieved will remain the same when incoming operations are consolidated but will change when outgoing operations are consolidated?

2. The Responses of the United States Postal Service to Presiding Officer's Information Request No. 3, question 2.a. states, "…the resulting network was operationally infeasible and impractical to implement."

a. Please describe the "resulting network." Include in your description a discussion of whether or not the network:

i. was a hub-and-spoke network;

ii. had a different optimal solution for different geographical regions;

iii. had a different optimal solution for each individual facility;

iv. had a different optimal solution for different mail classes or mail shapes;

v. contained more, fewer, or the same number of facilities as the current network; and

vi. contained more, fewer, or the same number of facilities as the optimal solution that resulted from the pre-defined distribution concept.

b. Please explain the specific reasons that this solution was deemed operationally infeasible and impractical to implement.

3. The Responses of the United States Postal Service to Presiding Officer's Information Request No. 3, question 2.d.iii states, "[t]he RDC concept is a combination of many best practices used in the current environment."
   a. Is the "current environment" referred to related exclusively to the United States Postal Service?
   b. Please list and briefly describe the many best practices that are combined in the RDC concept.

4. Is the location of DDUs an input into the END optimization and/or simulation model?

5. The schematic on page 5 of LR-9 depicts no annexes in the future network. However, the Responses to the United States Postal Service to Presiding Officer's Information Request No. 3, question 3.c. states that not all annexes will be closed. Please explain.

6. Refer to the Responses of the United States Postal Service to Presiding Officer's Information Request No. 3, question 4.
   a. What constitutes "enough volume" to warrant direct trucks?
      i. Is it a specific amount? If so, what is the amount?
      ii. Is it a percentage of truck capacity utilization? If so, what percentage?
      iii. Is it some other measure? If so, what measure?
   b. What percentage of current mail volume is overnight mail?
   c. What percentage of current origin/destination pairs has enough volume to warrant direct trucks? Is this percentage expected to increase, decrease, or remain the same in the future network?

7. Is there a nationwide “future network” identified by the END optimization and/or simulation model that has been used as a benchmark to evaluate anyAMP?
   a. If not, what is an AMP decision, or a new facility, compared to in order to validate its role in the future network?
   b. If so, did that benchmark “future network” consist of a specific number of facilities?
      i. If so, how many?
      ii. How many were RDCs, LPCs, and DPCs.
   c. If there is a benchmark “future network” used to evaluate AMPs:
      i. Did facilities in the benchmark “future network” have geographic locations that can be identified by region, 3-digit ZIP Code area, or 5-digit ZIP Code area? Please identify those regions or areas with which the facilities were identified.
      ii. Were the sizes of the facilities in the benchmark “future network” identified either in terms of square feet, workload, or any other measure? If so, please provide that information. Was size identified by operation? If so, provide that information.
      iii. Were the unit costs of the facilities in the benchmark “future network” identified by facility and/or operation? If so, please provide that information.
      iv. How many facilities in this benchmark “future network” will perform the functions currently performed by the ADCs and AADCs?
      v. Provide the number of PDCs that currently perform destinating processing but do not perform destinating processing in the benchmark “future network.”
      vi. Which of the facility characteristics referred to in ithrough ii i above were used to determine that an AMP decision was or was not consistent with the benchmark “future network?”

vii. What other characteristics of the facilities in the benchmark "future network" were used to determine that an AMP decision was or was not consistent with the benchmark "future network?"

viii. If, under the END process, a P&DC were to lose its role as a processing site for destinating mail arriving from other plants:

1. would it nevertheless retain its role as the processing site for local "turnaround mail?"
2. How much of a current P&DC's workload is "turnaround mail," on average?

8. Refer to the Responses of the United States Postal Service to Presiding Officer's Information Request No. 3, question 9.

a. If ZIP Codes are assigned based on mileage alone how is the cost function used to evaluate various possible ZIP Code assignments?

b. Provide, in mathematical format, the cost function(s) illustrated on page 40 of USPS Library Reference N2006-1/9.

c. Provide the computer code used to evaluate possible role assignments.

9. The response of United States Postal Service witness Shah to interrogatory OCA/USPS-T1-5 states, "[t]he NIA process has been re-named to END (Evolutionary Network Development), as the new name reflects the evolutionary network development process the Postal Service has adopted. Both processes use the same methods, data, and models for designing the Postal Services' future network strategies. Additionally the core objectives of both NIA and END remain the same." Is there a model requirements report containing an introduction, a detailed description of the optimization model, a description of the mail processing cost model, and a section on data requirements related to NIA? If so, provide the initial document and documents related to all subsequent phases.

10. This question addresses feasibility determinations made by the END simulation model prior to any AMP review. Refer to pages 14 through 16 of USPS Library Reference N2006-1/9.

a. Assume that the service standard between ZIP 204 and ZIP 208 is 1 day when the mail for ZIP Code 204 is processed in Plant B but would be 2 days if the mail were processed at Plant A.

i. When the simulation model is run to determine the feasibility of moving processing operations from Plant B to Plant A would the 1 day service standard be a constraint?

ii. Would moving the processing from Plant B to Plant A be determined to be infeasible because of this constraint?

b. Assume that the capacity at Plant C is 2.5 million pieces and that moving ZIP Codes 205 and 206 into Plant C would result in an increase in volume. Under simulation would the solution be determined to be infeasible if the consolidation resulted in total volume at Plant C of:

i. 2.6 million;

ii. 3 million;

iii. 5 million; or

iv. more than 5 million?

c. Assume that the total cost of processing and transporting mail at all three plants was $200 million. Would the consolidation be determined to be infeasible if the simulation showed that moving mail from Plant B to Plants A and C resulted in a cost increase of:

i. $1

ii. $1 million;

iii. $2 million;

iv. $20 million, or

v. more than $20 million?

d. Assume that plant C is a 50 year-old, multi-story plant located in an urban center and plant B is a three-year-old, single floor plant with ready access to highway and air transportation. Under simulation, would the consolidation of plant B into plant C be determined to be infeasible?

e. If your answers to a through d above are no, explain when the solution would be determined to be infeasible.

11. Does the optimization model assign operations to the largest facilities first and then iterate to smaller facilities if an acceptable solution cannot be found in the initial run? Provide the computer code used to assign operations to facilities.

Dawn A. Tisdale
Presiding Officer