

Before the  
POSTAL REGULATORY COMMISSION  
WASHINGTON, DC 20268-0001

Transfer of Parcel Post to  
Competitive Product List

Docket No. MC2012-13

REPLY COMMENTS BY WILLIAM C. MILLER

(June 15, 2012)

INTRODUCTION

On April 26, 2012, the Postal Service submitted a request to transfer its Parcel Post product to the competitive product list.<sup>1</sup> Subsequently on May 1 2012, the Postal Regulatory Commission (PRC) established Docket No. MC2012-13 to evaluate the Postal Service's request and provided an opportunity for interested parties to submit comments.<sup>2</sup> On May 31, 2012, the Public Representative submitted comments addressing in large part how the Postal Service's request comports with Section 3633 (a) and Section 3642 (b) of the PAEA.<sup>3</sup> Based on his review, the Public Representative concluded that it would be preferable to "raise Parcel Post rates to cover attributable costs, but maintain the product as market dominant."

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<sup>1</sup> Request of the United States Postal Service to Transfer Parcel Post to the Competitive Product List, April 26 (Request).

<sup>2</sup> Notice and Order Concerning Transfer of Parcel Post to the Competitive Product List, Order No. 1328, May 1, 2012 (Notice).

<sup>3</sup> Public Representative Comments, May 31, 2012 (Public Representative).

## SUMMARY OF POSITION

Although the Public Representative agrees with the Postal Service that Parcel Post is not a market dominant product, he is concerned about the magnitude of the average price increase that would be required on that product as a condition of transfer to the competitive product list. Public Representative at 1. He notes that in FY2011, the Parcel Post coverage factor was only 89.2 percent. Therefore in order to meet the minimum 100 percent threshold, as required by Section 3633 (a)(2), rates would need to increase by a minimum of 14 percent on average. However, the Public Representative notes that rates would be disproportionately higher in the higher zones and weight cells where rates increases are not restricted to the same extent by existing Priority Mail rates, as in the remaining zones and weight cells. *Id.* at 2. He further states that the Postal Service has not sufficiently considered (studied) the effects of these large rate impacts on mail users and small business concerns, as required by Section 3642(b)(3)(B) and Section 3642(b)(3)(C). *Id.* at 9-10. In particular, he observes that these impacts could be particularly acute in rural areas where sufficient competition may be lacking. *Id.* at 2.

With respect to Section 3642(b)(1) which describes the market dominance criterion to be evaluated by the PRC, the Public Representative concludes that Parcel Post is not a market dominant product for the Postal Service. He states that competitors already enjoy a “commanding market share”, despite below cost rates for Parcel Post. Therefore any rate increase would only erode the Postal Service’s share of the ground package market even further. Moreover, he notes that in Order No. 689 the Commission did not require the certainty of further market erosion for the Postal Service’s light weight parcels to conclude that this product was not market dominant. In that case, the Commission observed that Section 3642(b)(1) only requires the risk of market loss and that “the record demonstrates that such risk exists”. *Id.* At 8.

Despite passing the market dominance test, the Public Representative concludes that it would be preferable to keep Parcel Post as a market dominant product but raise rates significantly one time to cover attributable costs. According to the Public Representative, keeping Parcel Post on the market dominant side would effectively cap

rates to new levels covering attributable costs, but preclude any future rate increases to the detriment of all Parcel Post users and small businesses. *Id.* At 12.

## ASSESSMENT

In the FY 2011 ACD, the PRC observed that the Postal Service has proposed above average rate increases for its Parcel Post product over the last several years in order to close the coverage deficit. The PRC notes that Parcel Post coverage increased by 7.1 percentage points from 82.2 percent in FY 2010 to 89.3 percent in FY 2011.<sup>4</sup> The PRC also notes that the FY 2010 level represents a 9.2 percent improvement from the previous year.<sup>5</sup> Despite these steady improvements, the Postal Service has decided to move to close the deficit completely at this time by requesting to reclassify Parcel Post as a competitive product.

There is nothing in the PAEA that would restrain such a move under the market dominant classification other than the requirement to reduce other rates to comply with the price cap. However as a practical matter, the Postal Service has very limited flexibility to price Parcel Post at full coverage within Package Services because three of the other five products within this class are also “underwater”. Even if the required price reductions could be spread to all products, the Postal Service would gain very little financially. The contribution increase from Parcel Post (starting from its negative position) would be largely or completely offset by the contribution reductions from the other priced reduced products.<sup>6</sup> In contrast, by increasing rates to cover attributable costs and then transferring the Parcel Post product to the competitive side, the Postal Service can increase its contribution by a minimum of \$110.3 Million.<sup>7</sup> Additionally, the

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<sup>4</sup> FY 2011 Annual Compliance Determination, p. 130.

<sup>5</sup> FY 2010 Annual Compliance Determination, p. 117.

<sup>6</sup> Postal Service demand models, filed for FY 2011, indicate inelastic demand for all products. Thus price reductions reduce revenues, increase costs because of the volume expansion, and therefore reduce contributions as well.

<sup>7</sup> Attachment one for response to CHIR No. 1. The difference between this figure and the total deficit of \$88.2 Million reported in the FY 2011 Annual Compliance Determination for Single Piece Parcel Post is the surplus for the Alaska Bypass Program.

Postal Service can expect added system contribution from diversion of a portion of lost parcel volume to Priority Mail, as noted by the Public Representative. *Id.* At 6.

Moreover, the rate impact on users is mitigated by effective price ceilings set by the competition. The Postal Service finds, based on own research, that FedEx and UPS ground rates are only 17.23 percent and 31.75 percent higher than Parcel Post rates on average.<sup>8</sup> If so, then in all areas except rural locations with limited competition, Parcel Post percent rate increases are effectively constrained by these percentages. Consequently, the Postal Service appears to be severely limited in its ability to generate a positive contribution towards institutional cost coverage because it must raise rates about 14 percent, on average, just to achieve 100 percent attributable cost coverage. Even so, positive contributions could only be achieved at substantially reduced volume levels in the higher piece weight/zone rate cells only. As the Public Representative recognizes, the Postal Service is already severely price constrained in the remaining cells by its Priority Mail rate schedule.

#### SENSITIVITY ANALYSIS OF PERCENTAGE RATE INCREASES AND RESULTING CHANGES IN SYSTEM CONTRIBUTIONS

A sensitivity analysis was conducted to determine a likely range of rate increases and consequential gains in system contribution, dependent on the extent of competition and the percentage of Parcel Post mail diversion to Priority Mail. The analysis identifies the piece weight/zone percentage rate increases that maximize the Postal Service's system contribution gain. The consequential maximized gains are also identified by piece weight/zone combination in the accompanying EXCEL file submitted with this filing. Model calculations are briefly explained in the Appendix.

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<sup>8</sup> Attachment B of Request at 5. The Postal Service states that Parcel Post rates are 14.7 percent and 24.1 percent lower than FedEx and UPS ground rates. These calculate to the indicated percentages from  $17.23 = 100 * (1 / (1 - .147) - 1)$  and  $31.75 = 100 * (1 / (1 - .241) - 1)$ .

In general, the analysis validates the expectation that rate increases and consequential gains in contribution depend on the type of competition and extent of volume diversion to Priority Mail relative to lost Parcel Post volume generated by the rate increases. A summary of results for six scenarios are shown in the Table below. Three rate increase limitations are assumed for the Postal Service : a) 17.23 percent assuming FEDEX is the main competitor, b) 31.75 percent assuming UPS is the main competitor and c) Priority Mail rate limits that vary by piece weight/zone combination, assuming no effective outside competition. For each of these scenarios, lost volume is assumed recovered as Priority Mail at diversion rates of 25 and 50 percent. Percent price increases and coverage factors shown are the maximums and minimums calculated by piece weight and zone for each scenario. Also the analysis assumes that the Postal Service loses volume at a uniform rate (linearly) until zero volume is reached at the applicable rate limit.

As expected, the Postal Service gains the least with the most restrictive price constraint from FEDEX and the most when there is no effective competition. However despite wide swings in the percent price increases across scenarios, the contribution gain range is relatively compact with a lower bound of \$160.2 Million and an upper bound of \$236.9 Million. Not surprisingly, the analysis shows that in both FEDEX

Contribution Gains from Parcel Post Price Increases (\$000)								
Price Restriction	Fraction of Diverted Volume	SPP Contribution Gains	Priority Mail Contribution Gains	Total Contribution Gains	Maximum Percent Price Increase	Minimum Percent Price Increase	Maximum Coverage Factor	Minimum Coverage Factor
FEDEX	0.25	107,330	52,825	160,155	17.23%	1.90%	1.013	0.881
UPS	0.25	112,782	48,959	161,741	29.69%	1.90%	1.121	0.881
Priority Mail	0.25	153,121	41,300	194,421	79.05%	1.90%	1.548	0.881
FEDEX	0.50	107,330	105,651	212,980	17.23%	1.90%	1.013	0.881
UPS	0.50	107,673	105,322	212,996	31.75%	1.90%	1.139	0.881
Priority Mail	0.50	149,541	87,389	236,930	85.02%	1.90%	1.599	0.881

scenarios, it is optimal for the Postal Service to price at cell limits, yielding less than 100 percent coverage at lower piece weight cells (where Priority Mail rates set the limits) or just above 100 percent coverage at higher piece weights where FEDEX rates are

limiting (here assumed to be 17.23 percent greater on average than parcel rates). The full volume loss is reflected by a Parcel Post (SPP) contribution gain of \$107.3 Million which is roughly equal to the current contribution deficit.<sup>9</sup>

In the other two competition scenarios, Parcel Post demand is less sensitive to price and therefore the Postal Service can maximize contribution by setting higher rates while still retaining some parcel volume, particularly at the lower diversion rate. At the 25 percent diversion rate with UPS competition, the maximum percent rate increase is slightly less than the 31.75 percent zero volume limit. However at the 50 percent diversion rate, the Postal Service maximizes the contribution gain by increasing rates in general, compared to the lower diversion scenario, and diverting more volume to Priority Mail. For some piece weight cells, the gain is maximized at zero volume by increasing rates to the 31.75 percent limit, as shown in the Table.

If there is no effective competition and Priority Mail rates serve as the upper bound to parcel rate increases, then the Postal Service can generate sizeable rate increases and contribution gains close to or exceeding \$200 Million. This is the scenario that the Public Representative appears to contemplate. However, because this scenario would only apply on a local basis where limited competition exists, it is realistic to assume that the actual contribution gain would be some weighted average of regional gains where one of these scenarios would apply. In any event, the Postal Service would be extremely limited in generating even higher rate levels in the future, as claimed by the Public Representative, because volumes would be driven down substantially by even the minimum rate increase required to generate full attributable cost coverage.

This is further evidence of the lack of market power for the Parcel Post product. Looked at from the other direction, if the Postal Service were attempting to lower parcel rates substantially below cost, under an assumed predation scenario, in order to increase market share substantially, the present market share result would confirm the failure of such a strategy, because of the lack of market power. Recognizing the failure

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<sup>9</sup> Only Parcel Post volumes distributed in the FY 2011 billing determinants to piece weight cells (exclusive of Alaska bypass volume) are included in the analysis.

of such a strategy, the Postal Service would restore rates to once profitable levels. The fact that certain users would gain a temporary windfall through the lower rates does not mean that they would be entitled to a permanent windfall by requiring the Postal Service to provide their Parcel Service at below cost rates.

## CONCLUSION

The Public Representative is correct in his assessment that the Postal Service's Parcel Post product is not market dominant. This is evidenced by the present low market shares in the ground package market. Raising rates to even minimum levels required for full cost coverage would reduce these market shares drastically to miniscule levels under any competitive or non-competitive scenario. Concerned about future rate increases not subject to the general price cap, the Public Representative also recommends raising parcel rates to at least full coverage levels and leaving the parcel product on the market dominant side.

However, the ability to raise rates in the future presumes some effective market power, evidenced by substantial parcel volumes still remaining after initial rate increases. In fact, the Postal Service would have very little volume left, after the initially required rate increase, so that attempting to set even higher rates in the future would leave the Postal Service with virtually no market. Additionally, it also appears that transfer of the Parcel Post product to the competitive side would allow the Postal Service to recoup at least \$150 Million in lost contribution in a cash strapped environment . Therefore, the PRC should approve the Postal Service's request.

Respectfully Submitted,

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## APPENDIX

This appendix briefly explains the calculations used to estimate the contribution maximizing percent rate increases and consequential gains at the piece weight/zone cell level for Parcel Post. The sum of the gains across the 490 cells (70 pieces weights \* 7 zones) establishes the total gain for the Postal Service. As explained above these results vary depending on the scenario used.

Assume  $\Delta\pi_{ij}$  defines the contribution gain for some piece weight ( $i$ ) and zone ( $j$ ) cell, generated by increasing the Parcel Post rate in that cell by ( $k_{ij}$ ) fraction, where  $i = 1, 2, \dots, 70$  and  $j = 1, 2, \dots, 7$ . Then assuming a linear response of the volume change to the price increase defined by  $k_{ij}$ , the contribution gain can be calculated by:

$$\Delta\pi = V_0^{PP} [kP_0^{PP} + k\epsilon^{PP}(P_0^{PP} - u^{PP}) - kf\epsilon^{PP}(P_0^P - u^P) + k^2P_0^{PP}\epsilon^{PP}].$$

To simplify the notation, the cell defining subscripts are dropped. However the calculation and all variables should be understood to apply at that level. This expression is the same as that shown in previous documentation to determine contribution effects in the context of a price discount.<sup>10</sup> In this case, the variables are redefined to apply to Parcel Post ( $PP$  superscript) and Priority Mail ( $P$  superscript). Also the signs of the individual terms, except for the last squared term, are reversed to reflect that a positive value for  $k$  now reflects a price increase rather than a price discount. Last, no change in fixed costs are assumed at any level, so the fixed cost term in the previous result is dropped.

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<sup>10</sup> See Appendix to Reply Comments by William C. Miller, Docket No. MC2012-14 and Docket No. R2012-8, June 1, 2012, p. 12. The derivation for the above expression is the same as contained in that Appendix.

Using the above, the marginal effect on contribution at the cell level from changing  $k$  can be shown as:

$$\frac{\partial \Delta \pi}{\partial k} = V_0^{PP} [P_0^{PP} + \epsilon^{PP} (P_0^{PP} - u^{PP}) - f \epsilon^{PP} (P_0^P - u^P) + 2k P_0^{PP} \epsilon^{PP}].$$

To determine the marginal effect at the current rate level (where  $k = 0$ ), we drop the last term and evaluate:

$$\frac{\partial \Delta \pi}{\partial k} = V_0^{PP} [P_0^{PP} + \epsilon^{PP} (P_0^{PP} - u^{PP}) - f \epsilon^{PP} (P_0^P - u^P)].$$

The first term is a pure price effect on contribution assuming volume remains constant (the Parcel Post demand elasticity  $\epsilon^{PP}$  is zero) and is always positive. The second term denotes the effect on contribution from the loss of Parcel volume. The term would normally be negative from a positive unit contribution  $P_0^{PP} - u^{PP} > 0$ , but since Parcel Post is “underwater”, it is assumed negative in the analysis for all cells. The third term explains the increase in contribution from any mail diversion to Priority Mail (requiring  $f > 0$ ).

Since all three terms are positive, the Postal Service can always increase its contribution in all cells until the marginal effect on profit is zero:

$$V_0^{PP} [P_0^{PP} + \epsilon^{PP} (P_0^{PP} - u^{PP}) - f \epsilon^{PP} (P_0^P - u^P) + 2k P_0^{PP} \epsilon^{PP}] = 0,$$

or

$$P_0^{PP} + \epsilon^{PP} (P_0^{PP} - u^{PP}) - f \epsilon^{PP} (P_0^P - u^P) + 2k P_0^{PP} \epsilon^{PP} = 0.$$

Solving for  $k$ , then yields the contribution maximizing solution:

$$k^s = \frac{P_0^{PP} + \epsilon^{PP} (P_0^{PP} - u^{PP}) - f \epsilon^{PP} (P_0^P - u^P)}{-2 P_0^{PP} \epsilon^{PP}}.$$

This can be manipulated to yield:

$$k^S = \frac{1}{2} \left[ f(LI^P) \frac{P_O^P}{P_O^{PP}} - LI^{PP} - \frac{1}{\epsilon^{PP}} \right]$$

where:

$$LI^{PP} = \frac{P_O^{PP} - u^{PP}}{P_O^{PP}},$$

$$LI^P = \frac{P_O^P - u^P}{P_O^P}.$$

The values for  $LI^{PP}$  and  $LI^P$  are the Lerner indices for Parcel Post and Priority Mail at the existing rates.<sup>11</sup> Notice that  $k^S$  increases as the Lerner index for Priority Mail or the fraction of volume diversion increases. Also, as expected the optimal value for  $k$  decreases as Parcel Post demand sensitivity to price increases ( $\epsilon^{PP}$  becomes larger in absolute value).

All values in the formula can be obtained from the data for application to individual Parcel Post rate cells except for the demand elasticity. However, a value can be generated that applies for the existing volumes and rates by assuming a limit to the possible increase in  $k$  with linear demand. With Parcel Post volume lost at a uniform rate with linear demand, then any new volume level for any  $k$  value can be calculated according to:

$$V^{PP} = V_O^{PP} \left( 1 - \frac{k}{k^L} \right)$$

where  $k^L$  is the assumed limit. The fraction of volume lost for any  $k$  is then:

$$\frac{V^{PP}}{V_O^{PP}} - 1 = -\frac{k}{k^L}.$$

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<sup>11</sup> The indices can be related to the corresponding coverage factors by dividing the numerator and denominator of either expression by the appropriate attributable unit cost to obtain  $LI = 1 - 1/Cov$ . Thus as coverage increases the value of the index increases as well and approaches one for very high values of coverage.

Dividing that fraction by the price increase fraction  $k$ , then yields the elasticity value  $\epsilon^{PP} = -1/k^L$ . Substituting in  $k^S$  above then gives the final version for the optimal  $k$ :

$$k^S = \frac{1}{2} \left[ k^L + f(LI^P) \frac{P_0^P}{P_0^{PP}} - LI^{PP} \right],$$

where  $k^S \leq k^L$  else  $k^S = k^L$ . Substituting for  $k$  and  $\epsilon^{PP}$  appropriately in the very first expression defining  $\Delta\pi$  at the rate level and redefining the price and unit cost terms in terms of the respective Lerner Indices then allows the calculation of cell level contribution increases. Summing over all cells then yields the contribution maximizing system gain under the various scenarios.