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September 11, 2002

## VIA HAND DELIVERY

Blanca S. Bayo, Director<br>Division of Records and Reporting<br>Betty Easley Conference Center<br>4075 Esplanade Way<br>Tallahassee, Florida 32399-0870

Re: Docket No: 000121A-TP
Dear Ms. Mayo:
On behalf of the ALEC Coalition, I am filing the original and 15 copies of Corrected Exhibit 1 to the Comments that the Coalition submitted on August 30, 2002 in the above docket. Exhibit 1 is a document entitled "Response to Staff Request for a Severity Component to the BellSouth Performance Plan," which was prepared by Dr. George Ford of Z-Tel Communications, Inc. and supported by all members of the Coalition. The purpose of this Corrected Exhibit 1 is to correct certain erroneous values that were contained in Tables $1-5$ of the original exhibit. Please substitute this Corrected Exhibit 1 for the exhibit that was attached to the comments that were filed on August 30, 2002.

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and pleading by returning the same. Thank you for your assistance in this matter.

Thank you for your assistance in this matter.
Yours truly,
sot A.rncylothen

Joseph A. McGlothlin

[^0]
# Response to Staff Request for a Severity Component to the BellSouth Performance Plan 

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## I. Executive Summary

In this paper, a severity component for the SEEM Plan, based on the directions of the Florida Public Service Commission's staff, is set forth. The severity plan consists of two components: 1) a disparity level and 2) a payment function. The disparity level measures how different the service levels between BellSouth and the alternative local exchange carrier (ALEC) are. This measure of disparity is defined consistently across all measures, so that a disparity level of two implies service to the ALEC is "twice as bad" as that received by BellSouth regardless of the measure.

Payments are calculated based on the size of the disparity level using the payment function. The payment function computes the payment level between a minimum payment and maximum payment depending on the disparity level. Following the direction of staff, the minimum and maximum payment are based on the sample size of the ALEC (either linearly or non-linearly). Further, the relationship between the payment and disparity (severity) can be linear or nonlinear. Repeated non-conformance increases the minimum and maximum payment levels until equality of performance is attained.

Specific values for the parameters of the payment function are proposed herein, but the function is so general that other values can be used without altering the underlying structure of the disparity level or payment function. Initial payment levels are based on the current payment levels of the BellSouth Plan, but need not be as a practical matter.

## Introduction and Background

The current performance plan (SEEM) does not compute penalty payments based on the severity of performance failure. The Florida Public Service Commission is now seeking to incorporate severity into the SEEM plan. This document describes, in detail, an economically rational severity component for the SEEM plan. Formulas and rationale for all computations are provided. The procedures described here are very flexible, thereby giving the Commission staff sufficient room to make any adjustments deemed necessary. A spreadsheet illustrating all the calculations is provided at www.telepolicy.com.

While specific values for key parameters are provided in this document, these values can be changed without disturbing the underlying payment calculation. This flexibility and robustness is important, since parties likely will disagree on the specific values of the key parameters. Examples are provided that illustrate the effects of altering the key parameters of the payment calculation.


## II. The Disparity Level

The directives of staff for the computation of disparity are as follows: ${ }^{1}$

1. Consider number of disparate transactions subject to penalty payments. (e.g., For measures found to be out of compliance, use a $50 \%$ confidence level to achieve a statistically neutral result on the $2^{\text {nd }}$ compliance test. Assess penalties on transactions estimated to be beyond the $50 \%$ confidence level.)
2. Consider ratio, as opposed to the difference, of ALEC to ILEC means, proportions or rates (as applicable) (e.g., The X-Plan (Hybrid Performance Assurance Plan for the Multi-State Workshop) - Late filed Exhibit 2, Part I).

These directives are followed in this analysis to the greatest extent possible. The issue of "transactions" subject to penalties is reserved for the penalty calculation section (Section III).

## 1. THE QUALITY STANDARD

Staff describes precisely the standard from which to measure disparity ("Assess penalties on transactions estimated to be beyond the $50 \%$ confidence level"). In the X-Plan, I defined the level of disparity as

$$
\begin{equation*}
X^{*}=X_{I} \pm z^{*} \cdot s_{I} \cdot \sqrt{1 / n_{I}+1 / n_{C}} \tag{1}
\end{equation*}
$$

where $X^{*}$ is the quality standard, $X_{I}$ is the ILEC mean, $s_{I}$ is the ILEC standard deviation, $n_{I}$ is the ILEC sample size, $n_{C}$ is the CLEC sample size, and $z^{*}$ is the critical $z$-value associated with the chosen significance level of the test ( $\alpha$ ). Note that the confidence level of the hypothesis test equals $(1-\alpha)$. If the significance level of the test were $5 \%$, then the confidence level is $95 \%$. For a $5 \%$ significance level, the critical $z$-score is 1.65 .

Staff requests that the disparity calculation use a $50 \%$ confidence level. The associated $z$-score for a $50 \%$ confidence level (and $50 \%$ significance level) is 0.00 . Following the staff's recommendation, Equation (1) simplifies substantially, and the quality standard $X^{*}$ is simply equal to the ILEC mean:

$$
\begin{equation*}
X^{*}=X_{I} . \tag{2}
\end{equation*}
$$

Defining the quality standard at the $50 \%$ confidence level has a number of beneficial properties. First, by selecting the $50 \%$ confidence level, the calculation of disparity is free of the statistical hypothesis test. This fact is important, since the "[s]taff agrees with BellSouth's Witness Taylor's assessment that the statistical decision rule is not helpful in assessing severity (Staff Rec., p. 184)."

[^1]Second, disparity is computed in a manner consistent with the null-hypothesis of the statistical test as specified by the Staff:
... parity means no difference in the quality of service provided by an ILEC to its retail customers and the quality of the corresponding service that it provides to ALECs; BellSouth should be required to provide access to a competing carrier in substantially the same time and marner as it provides to itself (Staff Recommendation, Docket 00121-TP, August 2, 2001, p. $167,170)$."
Third, using this confidence level, the calculation of disparity is consistent across retail analog and benchmark measures. Recall that for benchmark measures, $X^{*}$ is equal to the benchmark because benchmarks are measured on a "stare-and-compare" basis (Staff Rec. p. 167).

## 2. The Disparity Index

Staff was also clear regarding the measure of disparity, telling parties to "[c]onsider ratio, as opposed to the difference, of ALEC to ILEC means, proportions or rates ...." This directive motivates the definitions of disparity for the various measure types. The following definitions of disparity are different due to the differences in the manner in which measures are defined (interval, rate, proportion), but are consistent. When the disparity index is equal to 2 , for example, the level of service provided to the CLEC is twice as bad as the quality standard regardless of the type of measure.

## Disparity Index for Interval and Rate Measures

The following formula is used to measure the magnitude of the disparate service for both benchmark and parity interval measures:

$$
\begin{equation*}
d=\frac{X_{C}}{X^{*}} \tag{3}
\end{equation*}
$$

where $d$ is the disparity level and $X_{C}$ is the CLEC mean. Penalties are paid only if $d>1.00$ (i.e., CLEC service quality is "worse" than the quality standard). ${ }^{2}$ Note that when $d=2$, the level of service received by the CLEC is twice as bad as the quality standard, $X^{*}$ (if $d=3$, then service is three times as bad as $X^{*}$, and so forth).

## Disparity Index for Percent Measures

The following formula is used to both detect discrimination and determine the magnitude of the disparate service for both benchmark and parity percent and rate measures: ${ }^{3}$

[^2]\[

$$
\begin{equation*}
d=\frac{w-X_{C}}{w-X^{*}} \tag{4}
\end{equation*}
$$

\]

where $w$ equals 1.00 if $100 \%$ is the ideal performance, and $w$ equals 0.00 if $0 \%$ is the ideal performance level. Penalties are paid only when $d>1.00$. As with the interval/rate measures, $d$ $=2$ when the CLEC's service is twice as bad as the quality standard.

A few examples may help understand the disparity index for percent measures. Let the benchmark/ILEC mean be 0.90 ( $90 \%$ ) of service provided in 3 days, with $100 \%$ being perfect service. This level of service implies that $10 \%$ of orders get service provided in longer than 3 days. If the CLEC service is $80 \%$, then $20 \%$ of its orders get service provided in longer than 3 days. This level of service is twice as bad as the benchmark (or ILEC service level). For this example, the disparity index is $(1-0.80) /(1-0.90)=2.00$ (service is twice as bad as the standard).

Alternately, if the benchmark is $10 \%$ and $0 \%$ is perfect service, then a CLEC service level of $20 \%$ is twice as bad as the benchmark (or ILEC service level). In this case, the disparity index is ( $0-$ $0.20) /(0-0.10)=2.00$ (service is twice as bad).

## III. The Payment Function

Payments are computed using the following (general) function:

$$
\begin{equation*}
P=p \min +(p \max -p \min )[(d-1) /(m-1)]^{\lambda} \tag{5}
\end{equation*}
$$

where $p \min$ is the minimum payment, $p \max$ is the maximum payment, $(d-1) /(m-1)$ is the disparity scale that is bound (by assumption) on the unit interval ( $0 \leq(d-1) /(m-1) \leq 1.00), m$ is the disparity index level that generates the maximum payment, and $\lambda$ is a factor that determines the shape of the payment curve between the minimum payment $((d-1) /(n-1)=0.00)$ and the maximum payment $((d-1) /(m-1)=1.00)$. Note that the minimum payment can be set equal to zero without altering the remaining elements of the payment function.

Importantly, note that $(d-1) /(m-1)=0.00$ when service levels are identical $(d=1)$, yet the payment function requires the minimum payment to be made. However, since payments are made only when a statistically significant difference in service quality is found, penalties will never be paid when service quality is equal. In other words, $(d-1) /(m-1)$ will always exceed 0.00 in relevant cases.

The conversion of the disparity index into the disparity scale (by dividing by $m-1$ ) is required to simplify the payment function. The disparity scale is defined on the unit interval, so that when the disparity scale is equal to 0.00 the minimum payment is made, and when it is equal to 1.00 the maximum payment is made. Further, the disparity scale allows payments to differ among measure types for a given level of the disparity index (if desırable). The $m$ variable of the disparity scale is the disparity level at which the maximum payment applies. For example, if $m=2$, then the maximum payment is paid when CLEC service is twice as bad as ILEC service. If $m=3$, then the maximum payment is paid when CLEC service is three times as bad as ILEC service.

The impact of the choice of $\lambda$ is indicated in Figure 1, where the illustration shows a linear curve ( $\lambda=1$ ), a convex curve $(\lambda>1)$, and a concave curve $(\lambda<1)$. My recommendation is to set $\lambda=1$, but I believe non-linear specifications of the payment function should be (at least) considered.


FIGURE 1.

## 1. Adding Transactions to the Payment Function

So far, Equation (5) looks more like a measure-based approach than it does a transaction-based system. However, by defining the minimum and maximum payments as a function of transactions, the payment calculation becomes a transactions-based approach where transactions determine the minimum and maximum payment amounts. This specification of a transaction-based system bounds the payments at both the minimum and maximum level, allowing the payments to be specified in a manner consistent with any level of aggregation/disaggregation.

The transactions-based payment system specifies the minimum and maximum payments as

$$
\begin{equation*}
p \min =f \cdot n_{A}^{0.25} \quad \quad \max =\phi \cdot f \cdot n_{A}^{0.25} \tag{6}
\end{equation*}
$$

where $f$ is a chosen parameter that sets the minimum payment for an ALEC sample size of $n_{A}$. The maximum payment will be $\phi$ times the minimum payment. For example, the maximum payment may be specified to be ten-times the minimum payment $(\phi=10)$. By raising the ALEC sample size to the 0.25 power, a non-linear relationship between the payments and sample size is created. Thus, the maximum and minimum payment will increase as ALEC transactions increase, but not linearly. The effect of this specification is illustrated in Table 1.

Table 1. Sample Size and $f$

|  | $\phi=10, f=500, n_{A}^{0.25}$ |  |  | $\phi=10, f=500, n_{A}{ }^{0.15}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $n n$ | Minimum | Maximum |  | Mınumum | Maximum |
| 1 | 500 | 5,000 |  | 500 | 5,000 |
| 50 | 1,330 | 13,296 |  | 899 | 8,991 |
| 100 | 1,581 | 15,811 |  | 998 | 9,976 |
| 500 | 2,364 | 23,643 |  | 1,270 | 12,700 |
| 1,000 | 2,812 | 28,117 |  | 1,409 | 14,092 |
| 5,000 | 4,204 | 42,044 |  | 1,794 | 17,940 |
| 10,000 | 5,000 | 50,000 |  | 1,991 | 19,905 |
| 100,000 | 8,891 | 88,910 | 2,812 | 28,117 |  |

Combining Equations (5) and (6) produces the final form of the payment function:

$$
\begin{equation*}
P=f n_{A}^{0.25}+\left(\phi \cdot f n_{A}^{0.25}-f n_{A}^{0.25}\right) \cdot[(d-1) /(m-1)]^{\lambda} \tag{7}
\end{equation*}
$$

where the values of $f, m$, and $\lambda$ must be specified. A $\lambda$ of 1.00 and $m$ of 2.00 are recommended, creating a linear relationship between severity and payments and levying the maximum payment when the CLEC's service quality is twice as bad as the ILECs. The choice of $f$ and $\phi$ are important, and may vary by measure/sub-measure and the level of aggregation (if desirable). Selected values for these terms is described in the following sections.

Note that the relationship between the minimum (and maximum) payment and sample size (as shown in Table 1) is determined by the power term on $n_{A}$ (i.e., 0.25 ). If faster (slower) escalation of payments with sample size is desired, then the power function of $n_{A}$ should be increased (decreased), with 1.00 being a linear relationship (payments with a power term of 0.15 are illustrated in Table 1).

## 2. Setting the Minimum Payment

The minimum payments are established using the current payment levels of the BellSouth plan, as directed by Staff and the Order ("approximates the $\$ 2,500$ minimum payment recommended by the ALEC Coalition (Staff Rec., p. 186)." These payments are adjusted to account for the transaction element of the payment function by establishing an average minimum payment equal to the average payment of the BellSouth plan at a sample size of 10.4 Tables 2 and 3 illustrate the minimum payment calculations. For Tier II payments, the recommendation is that $f$ be increased by the factors outlined in Table 4. These factors are derived from BellSouth's Tier II markups.

[^3]
## Corrected - 09/11/02

Table 2. Proposed Minimum Payments at Submeasure Level

|  | BellSouth Proposed <br> Month 1 Payments | Divided <br> by 100.25 | Initial Value <br> of $f$ |
| :---: | :---: | :---: | :---: |
| Billing | $\$ 450$ | $\$ 253$ | $\$ 250$ |
| Trunks | $\$ 1,150$ | $\$ 647$ | $\$ 650$ |
| LNP | $\$ 1,700$ | $\$ 956$ | $\$ 960$ |
| Maint. Repair | $\$ 1,500$ | $\$ 844$ | $\$ 840$ |
| Maint. Repair UNE | $\$ 4,550$ | $\$ 2,559$ | $\$ 2,600$ |
| Ordering | $\$ 450$ | $\$ 253$ | $\$ 250$ |
| Provisioning | $\$ 1,150$ | $\$ 647$ | $\$ 650$ |
| Provisioning UNE | $\$ 4,550$ | $\$ 2,559$ | $\$ 2,600$ |
| Pre-Ordering | $\$ 250$ | $\$ 141$ | $\$ 140$ |

Table 3. Minimum Payments for ALEC Sample Sizes at Submeasure Level

|  | $f$ | $n_{A}=1$ | $n_{A}=50$ | $n_{A}=100$ | $n_{A}=1,000$ | $n_{A}=10,000$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Billing | $\$ 250$ | $\$ 250$ | $\$ 665$ | $\$ 791$ | $\$ 1,406$ | $\$ 2,500$ |
| Trunks | $\$ 650$ | $\$ 650$ | $\$ 1,728$ | $\$ 2,055$ | $\$ 3,655$ | $\$ 6,500$ |
| LNP | $\$ 960$ | $\$ 960$ | $\$ 2,553$ | $\$ 3,036$ | $\$ 5,398$ | $\$ 9,600$ |
| Maint. Repair | $\$ 840$ | $\$ 840$ | $\$ 2,234$ | $\$ 2,656$ | $\$ 4,724$ | $\$ 8,400$ |
| Maint. Repair UNE | $\$ 2,600$ | $\$ 2,600$ | $\$ 6,914$ | $\$ 8,222$ | $\$ 14,621$ | $\$ 26,000$ |
| Ordering | $\$ 250$ | $\$ 250$ | $\$ 665$ | $\$ 791$ | $\$ 1,406$ | $\$ 2,500$ |
| Provisioning | $\$ 650$ | $\$ 650$ | $\$ 1,728$ | $\$ 2,055$ | $\$ 3,655$ | $\$ 6,500$ |
| Provisioning UNE | $\$ 2,600$ | $\$ 2,600$ | $\$ 6,914$ | $\$ 8,222$ | $\$ 14,621$ | $\$ 26,000$ |
| Pre-Ordering | $\$ 140$ | $\$ 140$ | $\$ 372$ | $\$ 443$ | $\$ 787$ | $\$ 1,400$ |

Table 4. Tier II Payments at Submeasure Level

|  | BellSouth <br> Proposed Tier I <br> Payments | BellSouth Tier II <br> Payment | Markup over <br> Tier I | Tier I $f$ <br> Multiplied by <br> Markup | Tier If $f$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Billing | $\$ 450.00$ | $\$ 700.00$ | 1.56 | $\$ 389$ | $\$ 390$ |
| Trunks | $\$ 1,150.00$ | $\$ 5,700,00$ | 4.96 | $\$ 3,222$ | $\$ 3,200$ |
| LNP | $\$ 1,700.00$ | $\$ 5,700.00$ | 3.35 | $\$ 3,219$ | $\$ 3,200$ |
| Maint. Repair | $\$ 1,500.00$ | $\$ 3,450.00$ | 2.30 | $\$ 1,932$ | $\$ 1,900$ |
| Maint. Repair UNE | $\$ 4,550.00$ | $\$ 10,000.00$ | 2.20 | $\$ 5,714$ | $\$ 5,700$ |
| Ordering | $\$ 450.00$ | $\$ 700.00$ | 1.56 | $\$ 389$ | $\$ 390$ |
| Provisioning | $\$ 1,150.00$ | $\$ 3,450.00$ | 3.00 | $\$ 1,950$ | $\$ 2,000$ |
| Provisioning UNE | $\$ 4,550.00$ | $\$ 10,000.00$ | 2.20 | $\$ 5,714$ | $\$ 5,700$ |
| Pre-Ordermg | $\$ 250.00$ | $\$ 250.00$ | 1.00 | $\$ 140$ | $\$ 140$ |

BellSouth also specifies payments for Colocation ( $\$ 5,000$ ) and Change Management ( $\$ 1,000$ ), but these measures should be treated differently than the others given the nature of their definitions. Thus, I propose (at this time) no adjustments, but that does not imply that adjustments are not warranted.

## 3. Setting the Maximum Payment

As defined in the Payment function, the maximum payment is a multiple ( $\phi$ ) of the minimum payment. In order to provide sufficient incentive to comply with performance standards, I propose that $\phi=15$ so that the maximum payment is 15 -times the minimum payment. Table 5 summarizes the minimum and maximum payments for two levels of $f$.

| Table 5. Choice of $f$ and the Minimum and Maximum Payment |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $n_{A}=1$ |  | $n_{A}=100$ |  |
| $\mathrm{n}_{\mathrm{A}}$ | Minimum | Maximum | Minimum | Maximum |
| Billing | \$250 | \$3,750 | \$791 | \$11,859 |
| Trunks | \$650 | \$9,750 | \$2,055 | \$30,832 |
| LNP | $\$ 960$ | \$14,400 | \$3,036 | \$45,537 |
| Maint. Repair | \$840 | \$12,600 | \$2,656 | \$39,845 |
| Maint. Repair UNE | \$2,600 | \$39,000 | \$8,222 | \$123,329 |
| Ordering | \$250 | \$3,750 | \$791 | \$11,859 |
| Provisioning | \$650 | \$9,750 | \$2,055 | \$30,832 |
| Provisioning UNE | \$2,600 | \$39,000 | \$8,222 | \$123,329 |
| Pre-Ordering | \$140 | \$2,100 | \$443 | \$6,641 |

## 4. Self Adjusting Payments

The initial payment levels of the performance plan will be little more than guesses of the effective payment level. In light of this fact, an effort to specify relatively low payments was made in this document. Thus, it is important to incorporate into the plan self-adjusting payments that iterate to the effective level and discourage large disparity levels when the initial level is set too low.

In this proposal, payments are set to rise with repeated non-conformance and those increased payments remain in place for some period of time, rather than return to their initial levels after a single month of compliance. Defining a duration factor for month $N$ of repeated nonconformance as $t_{m}$ for the minimum payment and $t_{x}$ for the maximum payment, the payment function becomes

$$
\begin{equation*}
P=t_{m} f n_{A}^{0.25}+\left(\phi \cdot t_{x} f n_{A}^{0.25}-t_{m} f n_{A}^{0.25}\right) \cdot[(d-1) /(m-1)]^{\lambda} . \tag{7}
\end{equation*}
$$

Having unique duration factors for the minimum and maximum payment allows the payments to respond differently to repeated non-conformance. For the duration factors, I propose a conservative $50 \%$ increase in the payment level for each month of non-conformance and propose that the maximum payment increase by $50 \%$ more than the minimum payment. Generally, the duration factor in month $N$ of non-conformance is

$$
\begin{equation*}
t_{r}=1+0.50 \mathrm{~N} \quad \text { and } \quad t_{x}=1.5 t_{n}, \tag{8}
\end{equation*}
$$

where $N$ is an unbounded integer value. Table 6 summarizes the duration factors $t_{r}$.

Table 6. Duration Factors

|  | Month 1 | Month 2 | Month 3 | Month 4 | Month $N$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $t_{2 n}$ | 1.50 | 2.00 | 2.50 | 3.00 | $1+0.50 \mathrm{~N}$ |
| $t_{x}$ | 2.25 | 3.00 | 3.75 | 4.50 | $1.5 \cdot(1+0.50 \mathrm{~N})$ |

If a payment is increased due to repeated failures, then the implication is that the initial payment level was too low. Thus, once the duration factors increase payments to a level where parity service is provided, there is no reason to reduce the payment back to its initial level. In other words, the duration factors should be "sticky."

With "stickiness" in mind, the following treatment of repeated discrimination is proposed. After N -months of non-conformance, the penalty level returns to its base level after N -months of conforming service. For example, after two months of non-conformance, two months of conformance are required before the payment returns to its base level. After four months of non-conformance, four months of conformance are required before the payment returns to its base level.

A return to the base payment level occurs only after the first episode of repeated nonconformance. The duration factors are "sticky" in that the base payment is adjusted upward permanently after a second episode of repeated non-conformance. In other words, after twomonths of conformance during the second episode (or any subsequent episode), the base payment is reset to a level equal to the current base payment multiplied by the highest observed duration factor. For example, the duration factor for three-months of conformance is 2.50 , so the new base payment becomes $2.50 f$ after a second episode of non-conformance. The base payment remains at this level for a period of six-months. After this six-month period, the base payment is reduced by $50 \%$ ( 1.25 in the example above) where it remains for the duration of the performance plan unless repeated non-conformance is observed again at which point the duration factors are applied as before to the higher base payment.

## IV. Summary

In this paper, a severity component for the SEEM Plan, based on the directions of the Florida Public Service Commission's staff, is set forth. The severity plan consists of two components: 1) a disparity level and 2) a payment function. The disparity level measures how different the service levels between BellSouth and the alternative local exchange carrier (ALEC) are. This measure of disparity is defined consistently across all measures, so that a disparity level of two implies service to the ALEC is "twice as bad" as that received by BellSouth regardless of the measure.

Payments are calculated based on the size of the disparity level using the payment function. The payment function computes the payment level between a minimum payment and maximum payment depending on the disparity level. Following the direction of staff, the minimum and maximum payment are based on the sample size of the ALEC (either linearly or non-linearly). Further, the relationship between the payment and disparity (severity) can be lnear or non-
linear. Repeated non-conformance increases the minimum and maximum payment levels until equality of performance is attained.

Specific values for the parameters of the payment function are proposed herein, but the function is so general that other values can be used without altering the underlying structure of the disparity level or payment function. Initial payment levels are based on the current payment levels of the BellSouth Plan, but need not be as a practical matter.

## Exhibit A. Key Parameters and Proposed Values

Table A-1. Key Parameters of the Payment Function

| Parameter | Effect of the Parameter | Proposed Value |
| :---: | :---: | :---: |
| $m$ | Selects the disparity level where the maximum payment applies. For example, if $\mathrm{m}=2$, then the maximum payment is paid when the ALEC's service is twice as bad as the ILEC's service. | 2 |
| $\lambda$ | Determines whether or not the payment function is linear $(\lambda=1)$ or non-linear $(\lambda>1, \lambda<1)$ in the disparity. | 1 |
| $\phi$ | Determines the relationship between the munimum and maximum payment (pmax $=\phi \cdot$ pmin). | 15 |
| Power Term $\left(n_{A}{ }^{2}\right)$ | Determines the relationship between the minimum and maximum payment and the ALEC sample size. Smaller values of the power term weaken the relationship (and vice-versa). | 0.25 |
| $t_{m}$ | Determines how much the minimum payment level increases with repeated non-conformance. | $1+0.50 \mathrm{~N}$ |
| $i_{2}$ | Determines how much the maximum payment level increases with repeated non-conformance. | $1.5 t_{m}$ |

## CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of ALEC Coalition's Comments Concerning Proposed Changes to BellSouth's Performance Measurement Plan has been furnished by hand delivery $\left({ }^{*}\right)$ or U.S. mail on this $30^{\text {th }}$ day of August 2002 to:
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[^0]:    JAM/mls
    Enclosure
    cc: Parties of Record

[^1]:    1 Florida Public Service Commission Memorandum, July 29, 2002 (Jason Fudge to All Parties of Record, Docket No. 000121 A-TP).

[^2]:    2 Note that this disparity calculation assumes higher values of $X$ are less desirable. If larger values of $X$ are more desirable, then the inverse of Equation (3) measures disparity.
    ${ }^{3}$ Assuming the rates are always less than 1.00.

[^3]:    ${ }^{4}$ It may make sense to compute the actual median sample size in Florida and adjust the payment levels to some level that corresponds to that sample size.

