

**TABLE OF CONTENTS**

<b>I. PROCEDURAL HISTORY .....</b>	<b>1</b>
<b>II. THE COMMISSION'S AUTHORITY .....</b>	<b>2</b>
<b>III. AT&amp;T'S TARIFF SHEETS .....</b>	<b>3</b>
A. CURRENTLY EFFECTIVE TARIFF .....	3
B. NEW TARIFF SHEETS .....	4
<b>IV. CLEC OBJECTIONS .....</b>	<b>5</b>
<b>V. ANALYSIS AND CONCLUSIONS.....</b>	<b>6</b>
A. PREVIOUS COMMISSION RULING RE DC POWER CONSUMPTION.....	6
B. ADEQUACY OF EXISTING RETURN-SIDE POWER MEASUREMENT.....	7
C. AT&T'S ALTERNATIVE TO RETURN-SIDE MEASUREMENT .....	7
D. CONSISTENCY BETWEEN TARIFF SHEETS AND THE 2ND INTERIM ORDER .....	8
1.) <i>5-Amp Minimum at the BDFBs</i> .....	10
2.) <i>51-Amp Minimum at the Main Power Board</i> .....	15
3.) <i>Conclusion</i> .....	16
E. JUSTNESS AND REASONABLENESS.....	16
1.) <i>Existing DC Power Billing in Illinois and Other States</i> .....	17
2.) <i>Measuring Device - Hand-Held Amperage Meters</i> .....	18
3.) <i>Alternative Measurement System - Supply-Side Metering</i> .....	19
4.) <i>Alternative Measurement System – Split Core Transducers</i> .....	22
5.) <i>Alternative Measurement System – Engineering Records</i> .....	24
6.) <i>Conclusion</i> .....	24
F. IMPLEMENTATION OF THE ORDERED AMP SYSTEM.....	25
1.) <i>Who Performs Initial Power Consumption Measurements?</i> .....	25
2.) <i>Time Allotted for Initial Measurements &amp; Certifications</i> .....	28
3.) <i>Time Allotted for New Measurements &amp; Certifications</i> .....	29
4.) <i>Necessity of Re-measurements and Re-Certifications</i> .....	31
5.) <i>Warranting Not to Exceed Certified Usage</i> .....	33
6.) <i>Necessity of Warrant by CLEC Officer</i> .....	33
7.) <i>Fee-Based Measurement of CLEC Power Usage by AT&amp;T</i> .....	34
8.) <i>Frequency of AT&amp;T Audits</i> .....	35
9.) <i>Distribution of All Audit Results to the CLECS</i> .....	36
10.) <i>Post-Audit Billing Adjustments</i> .....	37
11.) <i>Collaboration on Audit Forms</i> .....	37
12.) <i>Impact of Dispute Resolution</i> .....	38
13.) <i>Fuse Reduction</i> .....	38
<b>VI. FINDINGS AND ORDERING PARAGRAPHS .....</b>	<b>39</b>

**STATE OF ILLINOIS**

**ILLINOIS COMMERCE COMMISSION**

<b>Illinois Bell Telephone Company</b>	:	
	:	
<b>Proposed revision to the Collocation</b>	:	
<b>Tariffs to eliminate charges for DC power</b>	:	<b>05-0675</b>
<b>on a per kilowatt-hour basis and to</b>	:	
<b>implement charging on a per-amp basis</b>	:	

**ADMINISTRATIVE LAW JUDGE’S PROPOSED ORDER**

**I. PROCEDURAL HISTORY**

On September 15, 2005, Illinois Bell Telephone Company (now part of (and referred to throughout this Order as) “AT&T”) filed its Ill. C.C. No. 20, Part 23, Section 4, Original Sheets 31.5 and 31.6, 3<sup>rd</sup> Revised Sheet No. 33, and 3<sup>rd</sup> Revised Sheet No. 43 (the “Tariff Sheets”) in which it proposes to revise its collocation tariffs to eliminate charges for DC power on a metered per kilowatt-hour basis and to implement DC power charges on an ordered per-amp basis. DC power is provided by AT&T to competitive local exchange carriers (“CLECs”) at collocation sites in AT&T central offices. CLECs use that power to operate their collocated telecommunications equipment. AT&T intended that the Tariff Sheets become effective on October 31, 2005.

On October 19, 2005, this Commission issued a Suspension Order precluding the Tariff Sheets from taking effect, pending further consideration by the Commission. Pursuant to Section 9-201 of the Illinois Public Utilities Act (“Act”)<sup>1</sup>, the Commission held that the Tariff Sheets should be suspended until February 12, 2006. Additionally, the Commission concluded that the Tariff Sheets should become the subject of a hearing, in this docket, to determine their propriety. The Commission directed that AT&T should be made a respondent in such hearing. On February 8, 2006, the Commission issued an Order re-suspending the Tariff Sheets until February 12, 2006.

On October 20, 2005, AT&T entered its appearance in this proceeding. On October 21, 2005, Level 3 Communications, LLC (“Level 3”), filed a petition to intervene. XO Communications Services, Inc. (“XO”) and Mpower Communications Corp. dba Mpower Communications of Illinois (“Mpower”) filed petitions to intervene on October 25, 2005. CIMCO Communications, Inc. (“CIMCO”), petitioned to intervene on October 26, 2005. Covad Communications Company (“Covad”) petitioned to intervene on November 14, 2005, and Qwest Communications Corporation (“Qwest”) filed its intervention petition on November 28, 2005. On January 27, 2006, McLeodUSA Telecommunications Services, Inc. (“McLeod”), filed its petition to intervene.

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<sup>1</sup> 220 ILCS 5/9-201.

## Administrative Law Judge's Proposed Order

On January 4, 2006, the Administrative Law Judge ("ALJ") assigned to this proceeding ruled that a Protective Order agreed to by AT&T, Covad and Level 3 would govern the exchange of confidential information among those parties. The ALJ further ruled that other parties could elect in writing to be governed by the terms and conditions of that Protective Order. Alternatively, the ALJ authorized disclosure of confidential information by those parties. No additional protective orders were presented for the ALJ's approval.

On February 8, 2006, the Commission entered an Order resuspending the Tariff Sheets until August 12, 2006, so that hearings concerning the Tariff Sheets could be completed.

Pursuant to notice given in accordance with law and the rules and regulations of the Commission, this matter was heard by the ALJ at the Commission's offices in Chicago, Illinois on November 15, 2005, March 17, 2006, April 5, 2006, April 10-11, 2006 and April 14, 2006. The hearings on April 10 and 11, 2006, were evidentiary hearings.

During the evidentiary hearings, the following witnesses presented pre-filed written testimony and exhibits: for AT&T, Larry G. Parker (AT&T Ex's. 1.0 & 1.1), William J. Vangel (AT&T Ex's. 2.0 (adopting testimony of Stephanie A. Brissenden) & 2.1), Marvin Nevels (AT&T Ex's. 3.0, 3.1 & 3.2), Jeanne Muellner (AT&T Ex's. 4.0 & 4.1), and Roman A. Smith (AT&T Ex's. 5.0, 5.1 & 5.2); for Covad, McLeod, Mpower and XO (the "Joint CLECs"), Steven E. Turner (Joint CLECs Ex's. 1.0, 2.0 & 2.1); for McLeod only, Tami Spocogee (McLeod Ex. 1.0); for Qwest, Victoria Hunnicutt-Bishara (QCC Ex's. 1.0 & 1.1); for the Staff of the Commission, Kathy Stewart (Staff Ex's. 1.0, 1.1 & 1.2), Mark A. Hanson (Staff Ex's. 2.0, 2.1 & 2.2) and Russell W. Murray (Staff Ex. 3.0). All of the foregoing exhibits were admitted to the evidentiary record.

At the conclusion of the April 11, 2006 hearing, the evidentiary record in this proceeding was marked "heard and taken."

AT&T, Joint CLECs, Qwest and Staff each filed an Initial Brief ("Init. Br.") and a Reply Brief ("Rep. Br.") addressing the issues here.

An ALJ's written Decision was issued and served upon all parties on June 5 2006.

## **II. THE COMMISSION'S AUTHORITY**

Subsection 9-201(c) of the Act states that when the Commission conducts a hearing into "the propriety of any proposed rate," then it "shall establish the rates or other charges...proposed, in whole or in part, or others in lieu thereof, which it shall find to be just and reasonable." The burden of proof of the justness and reasonableness of the proposed Tariff Sheets, in whole and in part, "shall be upon the utility [here, AT&T]." Moreover, "[n]o rate or other charge...shall be found just and reasonable unless it is consistent with Sections of this Article [i.e., Article IX of the Act]."

Accordingly, in this proceeding, the Commission must approve just and reasonable rates for AT&T's provision of DC power at AT&T collocation sites. If the Commission concludes that AT&T has not met its burden of proof with respect to the justness and reasonableness of the Tariff Sheets, in whole or in part, then we must establish such other rates that the record - which, in addition to the Tariff Sheets, includes CLEC and Staff proposals and AT&T's current DC power tariffs - demonstrates to be just and reasonable.

### III. AT&T'S TARIFF SHEETS

#### A. Currently Effective Tariff

AT&T's central offices contain CLEC telecommunications equipment that requires electricity to operate. AT&T obtains electric power from its providers in alternating current ("AC"), which it converts, through rectifiers, to direct current ("DC"). DC power is transferred to a battery bank, then to the main power board, and then to battery distribution fuse bays ("BDFBs"). Cables connect a BDFB to the telecommunications equipment in CLEC collocation spaces. (In some cases, CLEC equipment is connected directly to the main power board.) Cables transmitting electricity to CLEC equipment are on the supply side, while cables routing electricity back to the DBFB (or main power board) are on the return side. For redundancy, there are two cables ("A" and "B") moving electricity in each direction.

Under its presently effective tariff<sup>2</sup>, AT&T charges CLECs for DC power<sup>3</sup>. AT&T uses power metering units ("PMUs") to measure that power. The PMUs are located on the return side of CLEC collocation equipment. Return side cable is severed and reconnected via an exposed metal plate, or "shunt," which is connected by a wire to a PMU to measure the current flowing over the shunt. The PMU periodically downloads measurements to a PMU server, which records measurements from all the PMUs located throughout a central office. The PMUs measure power in amperes ("amps"), which are converted to kilowatt hours ("KWHs") for billing purposes.

AT&T maintains that its return side power metering system has been "a failure," AT&T Ex. 3.0 at 11, principally because it significantly under-reports the amount of electricity consumed by CLEC equipment. This is so, AT&T contends, because power is diverted to the central office ground bar after flowing through CLEC equipment, but before it reaches a shunt and PMU. Such diverted power is never measured. As a consequence of this power "leakage," AT&T avers, the CLECs are not billed for a substantial portion of the DC power they receive via the supply side cables in AT&T's power distribution system. Additionally, AT&T asserts that PMUs have been prone to

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<sup>2</sup> The tariff was originally filed on April 18, 1998, in response to our directive in consolidated Dockets 96-0486/96-0659, 2<sup>nd</sup> Interim Order, February 17, 1998, at 98-100 ("2<sup>nd</sup> Interim Order"). AT&T asserts that it needed over two additional years to develop the power measurement scheme presently associated with the tariff. AT&T Ex. 1.0 at 11. We approved the tariff as a result of a compliance review of AT&T interconnection and unbundling provisions in Docket 98-0396, Order, October 16, 2002, at 51-52.

<sup>3</sup> AT&T's tariffs classify DC power provisioning as "noncompetitive interconnection services." AT&T Ex. 5.0, Sch. RAS-2.

malfunctioning and difficult to maintain. As a result, AT&T proposes to revise its DC power measurement methodology and associated billing. The Tariff Sheets reflect AT&T's proposed modifications.

## **B. New Tariff Sheets**

When filing the Tariff Sheets<sup>4</sup>, AT&T stated in accompanying correspondence that it proposes "to eliminate charging for DC Power provisioned to CLEC customer collocation arrangements on a 'per kwh' (kilowatt hour) basis and to implement charging for DC Power on a 'per amp' basis." AT&T Ex. 5.0, Sch. RAS-2. That attribute of the Tariff Sheets, which alters the billable unit of DC power from kwh to amps, is not controversial. AT&T will convert kwh to amps in a manner that will not, by itself, alter CLECs bills. That is, under the conversion factor AT&T will apply, a CLEC will pay the same amount for the same quantum of energy, whether it is measured and billed in amps or kwh. "Therefore, the conversion proposal will result in a neutral net effect, from a cost perspective, to both CLECs and [AT&T]," AT&T contends. AT&T Ex. 1.0 at 7.

Another significant element in the Tariff Sheets is that AT&T would cease metering CLEC power consumption. Instead, a CLEC's monthly DC power charge will be based on the number of amps ordered by the CLEC<sup>5</sup>. The CLEC's amperage order would be submitted to AT&T in a self-certification process that would include a CLEC declaration that it had conducted an actual, on-sight measurement of its power consumption<sup>6</sup>. Such self-certification would have to be presented within time limits set forth in the Tariff Sheets for, respectively, existing<sup>7</sup> and new CLEC power delivery arrangements<sup>8</sup>. The self-certification would include a required written attestation by a "responsible officer" of the CLEC that it "is not exceeding the total load of power as reported" in the self-certification. The CLECs would be required to physically re-measure and recertify their DC power demand semi-annually. Also, a CLEC would be obliged to submit new certification at any time that its power drain at a power distribution arrangement changed by more than 10 amps.

Additionally, the Tariff Sheets establish minimum allowable power demands - 5 amps for power provisioned from a BDFB and 51 amps for power drawn directly from a power board. Accordingly, a CLEC would be billed for the applicable minimum at each power distribution arrangement, even if its measurements indicated a power drain below that minimum.

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<sup>4</sup> As originally filed, the Tariff Sheets appear in the record at AT&T Ex. 5.0, Sch. RAS-2. After testimony was filed by the CLECs and Staff, AT&T revised the Tariff Sheets to accommodate certain concerns raised by those parties. The revised Tariff Sheets appear at AT&T Ex. 5.2, Sch. RAS-14.

<sup>5</sup> The number of amps would be multiplied by the per-amp charge of \$9.80 set forth in the Tariff Sheets to determine the monthly recurring DC power charge.

<sup>6</sup> AT&T expects (but does not attempt to require) that such measurements would be conducted with hand-held amperage meters. Tr. 366 (Nevels).

<sup>7</sup> In this context, "existing" refers to arrangements in place on the effective date of the Tariff Sheets.

<sup>8</sup> A "power delivery arrangement" is the provisioning of DC power to specific CLEC equipment. The sum of the amperage ordered at all of a CLEC's power delivery arrangements in a central office constitutes its ordered amperage load at that office.

Further, the Tariff Sheets authorize periodic audits by AT&T to check the accuracy of the CLECs' certified power demands. If an audit demonstrates that a CLEC's actual power usage exceeds its certified load by 10%, but less than 20%, *and* if the excess usage were at least 5 amps above certified load, AT&T would back-bill for the difference and alter the CLEC's subsequent monthly bills to reflect the audit results. If an audit shows excess actual usage of 20% or more, and, again, if the excess usage were at least 5 amps above certified load, the CLEC would not only be back-billed and receive higher subsequent monthly bills, but would also be required to reimburse AT&T's audit costs. When an audit triggers a CLEC billing adjustment, but not otherwise, the Tariff Sheets obligate AT&T to provide written results to the affected CLEC.

The Tariff Sheets also contain a provision ostensibly designed to encourage CLECs to voluntarily reduce the size of fuses protecting collocation power arrangements<sup>9</sup>. Upon receipt of a CLEC fuse reduction request, AT&T would "project manage" such reductions and bear "the costs associated with any refusing and cabling required to implement the requested power reduction." The CLEC would pay applicable order charges.

#### **IV. CLEC OBJECTIONS**

The CLECs challenge AT&T's proposal to replace return side power metering with a billing regime based on pre-ordered amps. They contend that, with modifications to the present system, direct metering can accurately capture actual CLEC power usage. In particular, the CLECs maintain that with any of three alternatives - fixed supply side meters, hand-held meters, or devices called split core transducers (combined with PMUs) - AT&T (by itself and without tariff changes) can avoid power leakage and realize full compensation for the electricity it provides.

However, if the Commission were to embrace AT&T's amperage-based pre-ordering system, the CLECs would then object to several provisions in the Tariff Sheets. In general, the CLECs argue that the Tariff Sheets impose obligations that are unreasonably burdensome, unnecessary and one-sided. They aver that they cannot, within budgetary and staffing constraints, meet AT&T's proposed certification deadlines or perform the required physical measurements of their power usage. The CLECs also deny the need for semi-annual recertification, and they oppose attestations of accuracy by CLEC officers.

Moreover, in the CLECs' view, the minimum load requirements in the Tariff Sheets contravene our directive in the 2<sup>nd</sup> Interim Order that power billing be usage-

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<sup>9</sup> "Fuses are failsafe devices that protect equipment from surges of power that are above the fail point of that fuse. If a surge of power were to run through a power cable and a fuse was not present[,] the equipment connected to that cable would realize the entire power surge and possibly be damaged or destroyed...Accordingly, whether or not there is power metering, fuses are used in all power cables that deliver electricity to telecommunications equipment." AT&T Ex. 3.0 at 7-8.

based. The CLECs, as well as Staff, contend that power billing should be linked solely to actual requested load, without minimum charges above actual power consumption.

The CLECs also object to certain elements in AT&T's proposed audit regime. The CLECs want to limit audit frequency and receive the written results of *all* audits (not just audits triggering billing adjustments). The CLECs further contend that billing revisions should occur when audits detect *less* than certified usage, just as they would when there is more than certified usage (as AT&T proposes)<sup>10</sup>. They also want a provision constraining their liability for AT&T's audit costs following dispute resolution.

Additionally, the CLECs aver that the benefits of the fuse-reduction provisions in the Tariff Sheets (principally, AT&T's assumption of certain costs) should be available for any fuse modification, including increases in fuse size that follow fuse reductions.

## V. ANALYSIS AND CONCLUSIONS

### A. Previous Commission Ruling Re DC Power Consumption

In the 2<sup>nd</sup> Interim Order, in the context of determining prices for interconnection and unbundled network elements provided by AT&T's predecessor, the Commission addressed pricing for DC power consumption at collocation sites. We noted Staff's suggestion that "power consumption charges should be based on usage and not per-circuit capacity of the equipment located in the cage...Staff proposed that Ameritech should be directed to...either provide a cost on a per-unit basis, which is measured for power consumed or reduce the charge to a square foot basis, which closely mirrors its actual charges."<sup>11</sup> The Commission concluded that Ameritech should establish charges "along the lines suggested by Staff."<sup>12</sup>

Thus, the 2<sup>nd</sup> Interim Order did not specifically prescribe AT&T's prevailing return-side measurement system or, indeed, any particular system. Rather, we required a particular result – either a per-unit charge derived by measuring consumed power, or a charge based on CLEC-occupied space (expressed in square footage) that "closely mirrors" actual charges (that is, a spatial charge equivalent to a per-consumed unit charge). In either case, the charge would be "based on usage" and not on the capacity of collocated equipment.

No party contends that the Commission should rescind our directive in the 2<sup>nd</sup> Interim Order, and no party suggests that its own recommendations here would do so. Nor does any party propose a collocation power charge based on the square footage occupied by a collocated CLEC. Therefore, our task here is to determine whether AT&T has demonstrated that its proposed Tariff Sheets will yield a just and reasonable per-unit charge derived from measurement of consumed power. If the answer to that

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<sup>10</sup> The Joint CLECs would abandon this contention if AT&T is required to furnish all audit results to them.

<sup>11</sup> 2<sup>nd</sup> Interim Order at 99.

<sup>12</sup> *Id.*

question is negative, we must then establish another per-unit charge derived from measurement of consumed power that the record shows to be just and reasonable.

### **B. Adequacy of Existing Return-Side Power Measurement**

The other parties generally agree with AT&T that the present return-side DC power measurement regime yields results that are meaningfully inaccurate. Joint CLECs Init. Br. at 10 (“Joint CLECs do agree that AT&T’S return side power metering system does not result in accurate measurement of power used or consumed”). “In fact, it is Staff’s position that the return side measuring methodology is so inaccurate that it is not consistent with the Commission’s “usage-based” directive in [the 2<sup>nd</sup> Interim Order].”<sup>13</sup>

AT&T presents a 2002 study by an outside analyst, Telcordia Technologies, Inc., which estimated that “the error in the metering could be about 30% to 50% of the measured values [recorded by AT&T’s return-side power meters].” AT&T Ex. 3.0 at 12 & Schedule MN-6 at 24. In AT&T’s view, the Telcordia estimate was confirmed by a more recent assessment at 12 collocation sites, conducted by AT&T personnel. That assessment quantified power leakages ranging from zero (in fact, a slight increase in electric current, above the amount measured on the supply side<sup>14</sup>) to 90%, with an average of 38% leakage. AT&T Ex. 4.0 at 12. AT&T maintains that a properly weighted average of leakage (favoring heavily used sites) is 47%.

Based on the evidence provided, the Commission must conclude that AT&T’s present return-side measurement scheme produces unacceptably erroneous results. While that scheme is conceptually consistent with the usage-based requirement of the 2<sup>nd</sup> Interim Order (indeed, as a direct measurement system, it is entirely usage-based), its practical implementation yields measurements that are dramatically deviant from actual CLEC usage. It follows that the DC power charges generated by return-side metering are unjust and unreasonable and need to be replaced.

### **C. AT&T’s Alternative to Return-Side Measurement**

AT&T’s present system of return-side shunts and PMUs attempts to directly and cumulatively measure the electric power actually consumed in real time by CLEC collocation equipment. Electric current is metered immediately after its use, and each unit of consumption is added to the cumulative total of units previously consumed during the billing period. If the system worked as intended (that is, if each consumed unit passed through the shunts and were counted by the PMUs), AT&T or the consuming CLEC could simply “read the meter” and know precisely how many units had been consumed since the last DC power bill was determined.

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<sup>13</sup> Staff Init. Br. at 7.

<sup>14</sup> This apparently occurs because the frame ground on the return side absorbs a modicum of electric current from other sources (in addition to the current flowing through the CLEC’s collocated equipment from the supply side). Staff Ex. 3.0 at 4.

AT&T's proposed new regime would abandon each of the foregoing attributes of the present system. It will not meter electric power as it is consumed and it will not track consumed units cumulatively in order to render a bill to the CLECs. Instead, AT&T proposes that a CLEC first perform physical measurements of the DC power consumed at each power delivery arrangement for its collocated equipment, then submit a certified order to AT&T for the sum of those measured quantities of electric current. AT&T refers to this as an "ordered amp" approach. The CLEC would also be required to re-measure its power usage at established intervals and whenever it meaningfully alters its DC current drain. Thus, under AT&T's proposal, DC power bills would be derived from a one-time measurement of usage, and the CLEC's monthly bill would remain constant until a physical measurement or equipment change necessitated revision of that monthly bill.

Accordingly, two issues arise. First, is AT&T's proposal, as expressed in the Tariff Sheets, consistent with the requirements and principles of the 2<sup>nd</sup> Interim Order? Second (and assuming the answer to the preceding question is affirmative), is the proposal just and reasonable?

#### **D. Consistency Between Tariff Sheets and the 2nd Interim Order**

The 2<sup>nd</sup> Interim Order requires, as we said above, a per-unit charge derived from the measurement of DC power actually consumed by the CLEC customer. The proposed Tariff Sheets clearly contemplate a per-unit charge, and simply alter the identity of the unit (from kilowatt hours to amperes) through a conversion that, by itself, does not change the rate imposed<sup>15</sup>. Also, the per-unit charges in the Tariff Sheets would be derived from a measurement of DC power used by CLEC equipment. The meaningful difference between AT&T's present methodology and the proposed Tariff Sheets is that the former involves continuous and cumulative measurements of power as it is actually consumed, while the latter uses a measurement (or perhaps, an average of measurements<sup>16</sup>) at a point in time, then bills as if that measurement captures actual monthly consumption thereafter.

Viewed in concept<sup>17</sup>, AT&T's proposed measurement regime is sufficiently associated with the CLECs' actual power consumption to conform to the letter and intention of the 2<sup>nd</sup> Interim Order. That Order did not mandate either cumulative metering or the precise quantification of usage we expect for the retail customers of electric utilities. Rather, we directed AT&T's predecessor to determine charges "along the lines" suggested by Staff, which included *either* measurement "for the power consumed" or a square-foot rate that "closely mirrors" charges based on consumption. The only pricing scheme expressly ruled out in the 2<sup>nd</sup> Interim Order was based on "the

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<sup>15</sup> As we previously noted, there is no dispute regarding the replacement of kilowatt hours with amperes as the unit of measurement for consumed DC power. Such replacement is consistent with the terms of the 2<sup>nd</sup> Interim Order.

<sup>16</sup> See, Tr. 335 (Nevels).

<sup>17</sup> That is, without regard to certain disputed implementation provisions in AT&T's proposal, particularly the 5-amp minimum charge per power delivery arrangement. Those disputed provisions are addressed later in this section.

per-circuit capacity of the [CLEC] equipment located in the [collocation] cage.” Under AT&T’s proposal here, the actual “power consumed” by collocated CLEC equipment will be measured<sup>18</sup>, while the per-circuit capacity of collocated equipment will be disregarded for billing purposes.

Moreover, the resulting charge is likely to track the CLECs’ actual consumption over time. Most of the parties here agree that the DC current used by collocated equipment is relatively constant. “Power consumption in telecommunication equipment is stable...[I]f the equipment configuration remains the same (i.e., no addition or subtraction of line cards) the power consumed does not vary much based on the traffic load placed on that equipment. This is especially true with the type of digital equipment used by CLECs in collocation arrangements.” AT&T Ex. 3.1 at 27-28. “Telecommunications equipment used in collocation arrangements does not have significant variation in power usage...[M]easurement of power consumption is going to be close to the consumption of that equipment 24 hours a day, seven days a week. Practically speaking, the only thing that changes the power consumption is the addition or subtraction of equipment.” Joint CLECs Ex. 2.0 at 29-30.

On the other hand, Qwest witness Hunnicutt-Bishara contends that telecommunications equipment does “not consume power at a constant rate.” QCC Ex. 1.0 at 10. She maintains that such equipment uses more power when starting up than when running in a steady state. AT&T apparently agrees. “In certain circumstances the CLEC *may need more power for startup situations*, but for the most part a CLEC’s actual consumption will remain fairly stable over time.” AT&T Ex. 3.1 at 28 (emphasis added). Moreover, Ms. Hunnicutt-Bishara avers, the difference between start-up load and running load can be considerable. Since the CLECs, under AT&T’s proposal, would need to pre-order enough DC power to accommodate start-ups (as well as other fluctuations in current drain), and will pay for that pre-ordered amount on a monthly basis, even though their equipment will use a lesser amount when running in a steady state, Ms. Hunnicutt-Bishara concludes that AT&T’s Tariff Sheets are not usage-based.

However - and importantly - AT&T has agreed to modify its Tariff Sheets so that the benchmark for appropriate power consumption will be determined by “normal operating conditions.” AT&T Init. Br. at 23. With this modification, the CLECs’ rights and duties under the Tariff Sheets would be linked to typical, rather than extraordinary, power consumption. Insofar as this principle would apply to the quantification of a CLEC’s monthly power bill (a bill that will not vary and, therefore, assumes relatively constant usage), it will tend to make those bills sufficiently usage-based to satisfy the 2<sup>nd</sup> Interim Order. Putting it another way, a repetitive monthly bill based on normal operating conditions is consistent with the 2<sup>nd</sup> Interim Order, while a repetitive monthly bill reflecting only extraordinary and ephemeral power drain is not.

Neither the record nor AT&T’s briefs definitively describe the breadth of AT&T’s intended application of the normal-operating-conditions principle. During evidentiary

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<sup>18</sup> And can be measured multiple times, to develop a reliable average or discover irregularities, before ordering power from AT&T.

hearings, AT&T witness Smith assented to inserting that principle in two specific sections of the Tariff Sheets (paragraphs 16A and 17), each of which establishes a CLEC duty to use no more power than requested. Tr. 114 & 116-17. It is therefore clear that a CLEC would not be subject to *penalty* if it exceeded its requested power drain, unless normal operating conditions prevailed. It is not expressly clear, however, that AT&T intends to apply that principle to determination of the CLEC's monthly *bill*, so that the CLEC can request and pay each month for the amperage needed for normal operating conditions, rather than for temporary and extraordinary circumstances. Nonetheless, in order to be usage-based within the meaning of the 2<sup>nd</sup> Interim Order, the Commission believes that the CLECs' repetitive monthly bills (which, *at AT&T's request*, will not be derived from cumulative and continuous metering) should reflect normal power drain. In such case, Qwest's concern - that the CLECs will consistently pay for more power than they use - is mitigated.

Staff's position in this case is that is "has no objection to an amperage based system as long as it is based upon 'loaded amps' and that the usage is fairly constant," Staff Init. Br. at 15). Implicit in that position is the assumption that snapshot measurements of CLEC power usage are adequately usage-based to satisfy the 2<sup>nd</sup> Interim Order. Staff witness Stewart is more explicit: "it's very clear that it [AT&T's revised proposal] is on a usage basis." Tr. 615.

However, Staff opposes the minimum usage charges included in the Tariff Sheets, on the ground that they are inconsistent with the usage-basis requirement of the 2<sup>nd</sup> Interim Order. The CLECs also object to those minima, for the same reason. Accordingly, the salient question is whether the conceptual consistency between AT&T's ordered amp proposal and the 2<sup>nd</sup> Interim Order is negated by minimum usage charges. We discuss this next.

### **1.) 5-Amp Minimum at the BDFBs**

The Tariff Sheets contemplate "that there be a 5 amp minimum for power delivery arrangements served from the BDFB, i.e., that it be permitted to bill at least 5 amps per month per power delivery arrangement." AT&T Init. Br. at 53. AT&T avers that a minimum charge is "essential" because AT&T "does not recover its costs for providing DC power when CLECs do not actually draw power...If a CLEC is not drawing any power, AT&T Illinois is under-recovering its costs for the power infrastructure it has deployed to provide power to that CLEC." *Id.* Moreover, AT&T claims, its proposed minimum charge is "avoidable," because the CLECs can decommission their unused power delivery arrangements or combine (and thereby bundle the amperage of) such arrangements to maximize "engineering efficiency." *Id.*, at 54-55.

The Joint CLECs oppose the 5-amp minimum, principally on the ground that it is not usage-based, but also because it ostensibly precludes the revenue neutrality that AT&T claims the Tariff Sheets will produce. Joint CLEC Init. Br. at 45. Staff agrees on both grounds. It regards the 5-amp minimum as "simply inconsistent with this Commission's usage based directive" in the 2<sup>nd</sup> Interim Order. Staff Rep. Br. at 7.

Concerning revenue neutrality, Staff maintains that the 5-amp minimum charge "is simply a rate increase for power delivery services." *Id.*, at 9. Qwest also objects to the 5-amp minimum on the same grounds. Qwest Init. Br. at 4.

With respect to the usage basis mandated in the 2<sup>nd</sup> Interim Order, one AT&T witness expressly acknowledges that the 5-amp minimum is not based on actual usage. Tr. 179 & 224 (Smith). The witness also confirms that the minimum charge will apply to CLEC equipment that is not turned up. *Id.* at 178. Nonetheless, AT&T argues that its ordered-amp proposal "must be viewed in its entirety...because there are several built-in cost savings elsewhere in the proposal." AT&T Init. Br. at 56. "[Those] provisions, on the whole and on the average, create a 'per amp' proposal that is usage-based." *Id.* The provisions AT&T refers to include the use of a more recent shared and common cost factor, the elimination of power measurement charges (since AT&T will cease performing consumption measurements) and "flexibility" in AT&T's consumption power audits, by which discrepancies under 10% of a CLEC's ordered amperage will produce no adverse consequence for the CLEC.

Joint CLECs reply that the 2<sup>nd</sup> Interim Order "does not state that the standard for charging CLECs is based on actual power consumed 'on the whole and on the average.'...it must be based on the amount of power actually consumed – no more and no less." Joint CLECs Rep. Br. at 54-55. Furthermore, the Joint CLECs assert, "AT&T has not shown that the asserted 'cost savings' in fact offset the increased costs associated with the minimum amp charge...Rather each 'cost saving' pointed to by AT&T is an unsubstantiated factoid that may or may not result in cost savings." *Id.*, at 55. Qwest echoes this point. "AT&T offers no data demonstrating that the amount AT&T will over-bill will equal amounts AT&T will under-bill as a consequence of other components of the proposal. Qwest Init. Br. at 7.

The Commission finds that the proposed 5-amp minimum charge is not usage-based, within the meaning of the 2<sup>nd</sup> Interim Order, and cannot remain in the Tariff Sheets if they are to be approved. The minimum charge is just that, a recurring fee that is independent of actual power consumption and cannot be avoided<sup>19</sup> by refraining from using power. Even if we assume, solely for the sake of argument, that cost savings will result from AT&T's proposed tariff change, such savings are unrelated to the question of whether the successor tariff will be usage-based. The purported savings have nothing to do with quantifying consumed power under the proposed ordered amp regime. If such ostensible savings are relevant at all in this proceeding, it would be because they pertain to revenue neutrality (and to the potential necessity of an appropriate cost study in support of the Tariff Sheets).

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<sup>19</sup> We reject AT&T's argument that CLECs can "avoid" minimum charges by combining power delivery arrangements. Absent such charges, the CLECs have no need for avoidance strategies. Furthermore, the CLECs are free to disagree with AT&T's interpretation of "sound engineering practice," particularly when AT&T raises no safety concerns and the CLECs pay for the collocation space they occupy. Joint CLEC Ex. 1.0 at 69 ("[T]he CLEC pays a non-recurring charge of \$1802.03 per power lead for these arrangements...[T]he cost for the DC Power Delivery arrangement is fully covered in the nonrecurring charge").

Further, there is no assurance that net cost savings will occur. While the minimum charge will always apply to each power delivery arrangement, some of the circumstances that will purportedly generate savings (e.g., modest unbilled consumption in excess of ordered amperage) may not materialize. Moreover, the more certain cost reductions (e.g., elimination of the power measurement charge and application of the most pertinent cost factor) are appropriately viewed as AT&T's obligations, rather than as offsetting savings that justify departure from usage-based rates. The Tariff Sheets would simply not be approved if they included cost recovery for, say, an abandoned usage measurement system.

With regard to revenue neutrality, there are key factual and regulatory issues. The key factual issue is not whether the amount that AT&T is likely to charge under the Tariff Sheets will be essentially equal to charges under the existing DC power tariff. The latter charges have been too low, because AT&T has, in general, under-charged for power provided under its existing tariff, due to leakage on the return-side of its power arrangements. Therefore, the apposite question is whether the Tariff Sheets are likely to yield charges that approximate the *sum* of past charges under the existing tariff, *plus* the amount that would have been charged absent leakage. As explained by Staff, “[i]f return side metering [had been] 100% efficient, AT&T Illinois would not have receive[d] one cent of [additional] revenue, which is precisely the outcome that should result from this proceeding.” Staff Rep. Br. at 9.

There is no real dispute that charges under the Tariff Sheets will exceed the sum of past charges and unbilled leakage. Indeed, there is no real dispute about the primary cause of that discrepancy. AT&T has devoted a section of its Initial Brief to “demonstrat[ing] that *the five-amp minimum ordering requirement is the source* of any increased billing to a CLEC.” AT&T Init. Br. at 34-36 (emphasis added). Therefore, the minimum amperage charge precludes revenue neutrality under the Tariff Sheets.

Therefore, the key regulatory issue is whether such non-neutrality is fatal to the proposed minimum usage charge. Staff's correctly states that a DC power charge that exceeding the sum of prior charges plus unbilled leakage would be “inconsistent with...the FCC TELRIC's cost-causation principles and...would need to be justified by an updated cost study.” Staff Init. Br. at 19. AT&T has not submitted an updated cost study in support of the ordered-amp system. “[T]he cost basis used in Docket No. 98-0396 [which determined the approved costs underlying AT&T's existing tariff] *is the same cost basis as that used for the current proposal.*” AT&T Ex. 2.1 at 6 (emphasis added). Thus, AT&T is using the same cost basis in support of an ordered-amp regime that it used to support a power metering regime<sup>20</sup>. For that approach to be acceptable to the Commission, the charges imposed must be likely<sup>21</sup> to produce the same recovery anticipated under AT&T's existing tariffs. We have found, however, that AT&T's

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<sup>20</sup> “The current approved cost study from Illinois Docket No. 98-0396...establishes the costs for *metered* power.” AT&T Ex. 2.0 at 6 (emphasis added).

<sup>21</sup> AT&T wrongly asserts that it is “*entitled* to recover its fixed costs.” AT&T Rep. Br. at 24 (emphasis added). A fundamental principle of utility rate regulation is that the provider is entitled to *an opportunity* to recover fixed costs. There is no entitlement, or guarantee, of actual cost recovery.

proposed minimum charge will tend to increase the charges imposed on the CLECs, beyond the level authorized in AT&T's existing collocation power tariffs.

As we noted above, AT&T insists that it will actually *under-recover* its DC power costs without the 5-amp minimum<sup>22</sup>. This assertion does not help AT&T, since it indicates that Tariff Sheets are unlikely to recover the costs approved in AT&T's cost study without violating the usage-based requirement of the 2<sup>nd</sup> Interim Order. Moreover, AT&T has not established the quantum of its claimed under-recovery<sup>23</sup>. Consequently, even if the Commission were willing to disregard the usage-based requirement, we could not determine whether the 5-amp minimum was reasonably proportionate to AT&T's predicted short-fall<sup>24</sup>. Thus, in the view of Staff and all of the participating CLECs, the correct remedy for AT&T's purported under-recovery is to revise its DC power rate structure, in a proceeding constituted for that purpose, with the support of an appropriate cost study<sup>25</sup>. As Qwest states:

AT&T claims that the five amp minimum is needed to allow AT&T to recover its plant costs. Whether or not this is a valid argument, it is not legitimately at issue in this case, and needs to be addressed, if at all, in a separate cost proceeding. Whether \$9.80-per-amp-consumed is insufficient to allow cost recovery is no different than the question of whether AT&T was able to recover its costs when charging \$.28-per-kilowat-hour. If AT&T is concerned that its per amp methodology is insufficient to allow cost recovery, it should request that the Commission open a cost proceeding. This case, as AT&T has argued consistently, is not the proper forum for reshaping the DC power rate structure.

Qwest Rep. Br. at 3 (footnote omitted).

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<sup>22</sup> "Without the minimum, AT&T Illinois would not fully recover its fixed cost of providing the DC power infrastructure such as the main power board, the rectifier, the generators and the back-up batteries." AT&T Rep. Br. at 24.

<sup>23</sup> Indeed, AT&T undermines the basis for its under-recovery claim insofar as its own witness (Mr. Parker) insists that the Commission should *not* find "that a CLEC can legitimately use less than 5 amps of power." AT&T Ex. 3.2 at 11. "I do not believe that an actively used power delivery arrangement will draw less than 5 amps of power." *Id.* If Mr. Parker is correct, AT&T does not need its 5-amp minimum charge at any active power arrangement, because it will not under-recover revenue at such arrangements.

<sup>24</sup> The Joint CLECs additionally note that "the converted per amp rate includes a significant component tied to the cost of obtaining electricity from an electric utility." Joint CLEC Rep. Br. at 56, fn. 166. Consequently, a properly calculated minimum charge would need to reflect AT&T avoided AC power cost.

<sup>25</sup> Without intending to predetermine the outcome of any such cost proceeding, the Commission surmises that, even in an appropriate case, a minimum usage charge would likely clash with the usage-basis requirement of the 2<sup>nd</sup> Interim Order (assuming that we adhere to that requirement). Thus, the more likely result of a cost proceeding is that the rate for *consumed* units of DC power would be altered, based, among other elements, on AT&T's fill factor (as the Joint CLECs suggest, Joint CLECs Init. Br. at 56).

Accordingly, because the 5-amp minimum is not revenue neutral, and because it will likely cause the CLECs' DC power bills to increase (when actual power consumption has not increased), and because that increase is unsupported by a TELRIC-based cost study, it cannot reasonably be approved with the proposed Tariff Sheets. This is an independent cause for rejection of the 5-amp minimum, apart from the contravention of the usage-basis requirement of the 2<sup>nd</sup> Interim Order discussed above. That does not mean, of course, that AT&T will collect nothing for usage under five amps. The CLECs must accurately measure and report any amount of actual usage, so that AT&T may bill for consumed DC power.

That said, the Commission acknowledges AT&T's concern that the CLECs have collocated some unused equipment, which draws no power at all<sup>26</sup>. AT&T will collect no recurring charges for power consumption from such equipment (although the parties agree that AT&T will be compensated for space utilization and power cable installation<sup>27</sup>). AT&T characterizes this as CLEC "warehousing" of equipment in collocation cages, AT&T Ex. 3.1 at 25, while the CLECs say that the magnitude of non-recurring collocation costs causes them to install equipment in advance of immediate need. Joint CLEC Rep. Br. at 34. In any case, if unused equipment is indeed likely to preclude AT&T from recovering DC power costs, the remedy under the 2<sup>nd</sup> Interim Order is not a minimum consumption charge. Instead, AT&T can seek to revise its charges for consumed power, or to establish decommissioning (that is, removal) requirements for idle equipment. AT&T's existing tariffs do not provide for decommissioning. Tr. 490 (Parker).

Finally, AT&T emphasizes that a Verizon Illinois tariff imposes a 10-amp minimum. AT&T Ex. 3.0, Sch. LGP-3. AT&T argues that the Commission would not have permitted that tariff to take effect if it were at odds with our policies. AT&T Rep. Br. at 25. Therefore, AT&T believes it should be allowed its smaller 5-amp minimum. AT&T Init. Br. at 56. The Joint CLECs counter that "AT&T has failed to show that the Verizon collocation tariff was adopted after a contested case proceeding, and thus, whether the Commission was asked to enforce its determination that CLECs should be billed for power actually consumed." Joint CLEC Rep. Br. at 57.

When a public utility under our jurisdiction files a tariff, the Commission can either suspend and investigate that tariff or "pass it to file" - that is, let it take effect without investigation after a period of time (45 days) determined by statute.<sup>28</sup> The Verizon tariff was apparently "passed to file" by the Commission in 2003. "With a pass-to-file tariff, the [Commission] does not establish rates, exercise control over the rates, or go beyond fact gathering; instead it merely allows the rates to go into effect...[T]he Act does not require the [Commission] to review the rates before they become effective." A. Finkl & Sons Co., et al. v. Illinois Commerce Commission, et al., 325 Ill.App.3d 142, 150, 756 N.E.2d 933, 258 Ill.Dec. 659 (2001). A decision to pass a tariff to file "is not an inquiry into the propriety of the rates as in a formal hearing," and if we do not suspend the

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<sup>26</sup> *E.g.*, AT&T Rep. Br. at 25.

<sup>27</sup> *E.g.*, AT&T Init. Br. at 53.

<sup>28</sup> 220 ILCS 5/9-201; see also 220 ILCS 5/13-501.

rates, “the utility is not required to justify its rates as it does in a formal hearing.” *Id.*, 325 Ill.App.3d at 151. “Only after a formal hearing under [the PUA] does the [Commission] have to enter an order finding the rate changes ‘just and reasonable’.” *Id.* These principles were expressly upheld in Globalcom, Inc. v. Illinois Commerce Commission, 347 Ill.App.3d 592, 617 806 N.E.2d 1194, 1213 (2004).

In the instant case, the parties have compelled us, by framing the issue, to expressly consider the validity of a minimum usage charge for DC power. The Commission is not limited by the precedent of the Verizon tariff and, indeed, that tariff established no substantive precedent, for the reasons set forth in the preceding paragraph. We will reject the 5-amp minimum here, as inconsistent with the 2<sup>nd</sup> Interim Order, and we would address the Verizon tariff anew if caused to do so in an appropriate proceeding.

## 2.) 51-Amp Minimum at the Main Power Board

The Tariff Sheets contain another minimum usage requirement (51 amps) applicable to equipment serviced by the main power board. According to AT&T:

The purpose of this provision is purely an engineering one; power delivery arrangements that require less than 51 amps are most efficiently served from ports on the Battery Distribution Fused-Bays because those ports are more common and less expensive to provide. A BDFB is a secondary distribution point and handles the smaller power cables. AT&T Ill. Ex. 4.0, Sch. JM-1 at 16. By comparison, the main power board is the first level of DC power distribution and ports at this location are far more scarce, so they are more efficiently used to feed power arrangements that require a large amount of power, or to feed BDFBs (which will in turn feed smaller power delivery arrangements). *Id.* at 13-15; AT&T Ill. Ex. 3.1 at 21-22.

AT&T Init. Br. at 57. None of the foregoing is disputed.

The issue, then, is whether our ruling, above, rejecting the proposed 5-amp minimum arrangements connected to a BDFB, is also applicable to the 51-amp minimum for arrangements connected to the main power board. AT&T contends that the latter is “substantially different,” because it is not intended to recover an alleged revenue shortfall, but to motivate CLECs to move smaller power drains from the main power board to a BDFB, which is more suitable for such usage. AT&T emphasizes that the 51-amp minimum “can always be avoided by re-homing the power cable to a BDFB. Thus, the question is not whether it is fair to charge a minimum...for arrangements served from the main power board. Rather, the question is whether it is fair to require CLECs to re-home their power cables to a BDFB in appropriate circumstances.” AT&T Rep. Br. at 27.

The Commission agrees with AT&T's view of this issue. The clear intention, and likely result, of the 51-amp minimum is not to generate revenue for non-consumption, but to appropriately match power-consuming equipment with AT&T's power sources. If a CLEC wants, for example, a power arrangement with four amps, the 51-amp minimum will not cause the CLEC to pay for unused amps. Rather, it will cause the presumably rational CLEC to choose the power source (a BDFB) appropriate to its need, at which it will pay for nothing more than actual consumption (given our ruling on the 5-amp minimum). Thus, the Commission does not find that the 51-amp minimum affronts the 2<sup>nd</sup> Interim Order.

That said, there was discussion during the evidentiary hearings in this proceeding concerning CLEC power arrangements that may have been connected to the main power board at AT&T's, not the CLEC's, choice. Tr. 350-54 (Nevels). Such occurrences may have included power arrangements drawing fewer than 51 amps. AT&T's witness states that such events are "very rare." Nonetheless, in those instances, with the 51-amp minimum in place, the affected CLEC would be billed for more power than it consumed, which would contravene the 2<sup>nd</sup> Interim Order. Consequently, since we approve the 51-amp minimum, the Tariff Sheets must provide assurance that the minimum will not apply to a CLEC power arrangement connected to the main power board without CLEC consent.

### **3.) Conclusion**

The Commission concludes that the Tariff Sheets, when viewed as discussed above, are adequately tied to actual CLEC DC power usage to conform to our previous ruling in the 2<sup>nd</sup> Interim Order. With that conclusion, we do not mean to suggest that the snapshot measurements contemplated in the Tariff Sheets are as "usage-based" as continuous and cumulative metering of power consumed in real time. Indeed, the reverse is clearly true. However, AT&T's ordered-amp regime, when applied to normal operating conditions and without a usage minimum at its BDFBs, is as closely linked to actual power usage as the 2<sup>nd</sup> Interim Order requires. Whether it is also just and reasonable - that is, whether the record does not describe a measurement methodology that will accurately yield more usage-based results, and do so cost-effectively - is a separate question. The Commission addresses that next.

#### **E. Justness and Reasonableness**

Justness and reasonableness are not self-defining terms. The justness and reasonableness of a proposed tariff is determined by evaluating relevant associated circumstances, including, in this instance: industry and regulatory experience with available alternative methodologies; the comparative efficacy of the tariff versus such alternatives (principally, other measurement schemes); and the financial impact of the tariff on both the provider and its customers (particularly, the imposition of ancillary costs and burdens to achieve tariff compliance). We address below the associated circumstances we deem relevant to this proceeding.

### 1.) Existing DC Power Billing in Illinois and Other States

The evidentiary record shows that other Illinois ILECS, as well as out-of-state ILECs, bill in amperes rather than kilowatt hours and do not meter cumulative usage for billing purposes<sup>29</sup>. Within Illinois, according to a non-exhaustive survey by AT&T, other ILECs' interconnection agreements impose DC power charges in multiple-amp blocks, rather than on individual amps, thereby indicating that metering is not employed. AT&T Ex. 1.0 at 22-23. (However, the only relevant tariff discovered by AT&T (from Verizon North, Inc.) contains a single-amp rate, *id*, Sch. LGP-3; therefore, nominal authorization for cumulative metering cannot be ruled out in that instance, although there is no evidence such metering is actually utilized.)

In several other states, public utility commissions have approved or applied DC power rates based on ordered amps<sup>30</sup>, or on the rated amperage of collocated equipment.<sup>31</sup> In certain other states, the public utilities commissions have authorized collocation power rates based on "fused amps" - that is, the number of amps equal to the size (or shut-off threshold) of the fuses that regulate current flow through collocation power cables<sup>32</sup>. Appropriate fuse ratings will exceed predicted current flow, in order to accommodate surges beyond a CLEC's ordinary power draw<sup>33</sup>. Putting it differently, fused amps are quantified for exigent circumstances, not for normal consumption, so the former will be greater than the latter. Therefore, fused amp pricing is distinctly

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<sup>29</sup> In fact, the record contains no affirmative evidence of continuous and cumulative power metering anywhere to date. However, in some instances, there is simply no clear evidence of how the relevant ILEC identifies the quantum of DC power for which CLECs are billed. Also, in one jurisdiction, Texas, an experiment in cumulatively metered measurement may commence.

<sup>30</sup> *E.g.*, In the Matter of the Commission's Own Motion, to Review the Costs of Telecommunications Services by SBC Michigan, Case No. U-13531, Michigan Public Service Commission, Opinion and Order, December 21, 2004, at 20; Re BellSouth Telecommunications Inc., Docket No's.981834-TP & 990321-TP and PSC-03-1358-FOF-TP, Florida Public Service Commission, November 26, 2003, 2003 WL 22953570 (Fla. P.S.C.) at 22-23; Re Verizon New York, Inc., Case 03-C-0980, New York Public Service Commission, Order Adopting the Terms of Joint Proposal, April 14, 2004, 2004 WL 1358921 (N.Y.P.S.C.) at 3; SBC-California/MCImetro Arbitration, Application 05-05-02, Public Utilities Commission of the State of California, Final Arbitrator's Report, April 19, 2006, at 159; Review of Cost Studies, Methodologies, Pricing Policies, and Cost Based Rates for Interconnection and Unbundling of BellSouth Telecommunications, Inc.'s Services, Dckt. No. 14631-U, Georgia Public Service Commission, Order, March 18, 2003), at 41. In the latter proceeding, however, billing on a load amp basis was required only as an "option" for CLECs, along with direct power metering. AT&T stresses, though, that in the more than three years since that decision, metering was never implemented.

<sup>31</sup> Southwestern Bell Telephone, L.P. d/b/a SBC Missouri's Petition for Compulsory Arbitration of Unresolved Issues for a Successor Interconnection Agreement to the Missouri 271 Agreement, Case No. TO-2005-0336, Missouri Public Service Commission, Final Arbitrator's Report, Sec. Collocation at 11 (Order issued July 11, 2005).

<sup>32</sup> *E.g.*, Re Provision of Collocation Space, Dckt. No. P-100, Sub. 133, North Carolina Utilities Commission, Order, Sept. 3, 2002, 2002 WL 31103699 (N.C.U.C.) at 54; Re Bell South Telecommunications, Inc., Docket No. 2001-209-C, South Carolina Public Service Commission, Order No. 2002-77, February 14, 2002, 2002 WL 480605 (S.C.P.S.C.) at 21 (but with "a 0.67 multiplier to take into account the fact that a CLEC would not normally use the full capacity of the protection device").

<sup>33</sup> Thus, AT&T describes fused amps as "the number of amps that a CLEC is *capable of drawing* over the power arrangement." AT&T Init. Br. at 25 (emphasis added).

further from being usage-based (and, all else being equal, produces higher CLEC bills) than AT&T's proposed snapshot measurement of actual usage.

On the other hand, as we already noted, one state commission (Texas) directed ILECs and CLECs to collaborate in developing metering arrangements for measuring DC power consumption at collocation sites<sup>34</sup>. AT&T points out, however, that "no power metering arrangement has been implemented" in Texas since the commission there issued its directive. AT&T Init. Br. at 30.

The Commission finds that an appropriately usage-based, ordered amp methodology for quantifying CLEC DC power bills is within the mainstream of authorized industry practice, both within Illinois and in other jurisdictions.

## **2.) Measuring Device - Hand-Held Amperage Meters**

The Tariff Sheets contemplate a "physical site, measured verification of the total actual DC current drain" at a power delivery arrangement. No particular measurement device or system is specified. AT&T apparently assumes hand-held amperage meters would be used<sup>35</sup>. The important questions are, first, whether an ordered amp system utilizing hand-held meters is a just and reasonable option, and, second, whether hand-held metering is superior to other available measurement methods.

The parties agree that hand-held amperage meters would provide accurate results for DC power billing purposes. Staff Ex. 1.0 at 12 ("an accurate reading"); AT&T Ex. 3.1 at 20 ("can accurately measure the power being used at that very moment"); Joint CLECs Ex. 2.0 at 10 ("very accurate and are very easy to calibrate"). Hand-held meters are readily available, even from retail commercial outlets, at modest prices (\$100-\$200)<sup>36</sup>. Amperage measurement with a hand-held meter takes about five minutes per power delivery arrangement (not counting travel time to and from a collocation site)<sup>37</sup>. Staff emphasizes that hand-held amp meters "are portable in that they can be moved from one DC power delivery arrangement to another, central office to central office, and used over and over again." Staff Init. Br. at 11.

Staff recommends that hand-held meters be utilized, instead of return-side metering or other options, to measure CLEC power usage. AT&T and the CLECs support hand-held metering, but each wants the other side to do the metering. In either

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<sup>34</sup> Arbitration of Non-Costing Issues for Successor Interconnection Agreements to the Texas 271 Agreement, Dckt. No. 28821, Arbitration Award – Track 1 Issues, February 23, 2005, Collocation-Joint DPL List, Issue 2. This followed upon the Texas Commission's arbitration award in Complaint of Birch Telecom of Texas, Ltd., et al. v. Southwestern Bell Telephone Co., Dckt. 27559, Arbitration Award, September 15, 2003 at 11, which approved metering as one of three alternatives for measuring DC power consumption (the other alternatives were based on ordered amps or maximum carrying capacity).

<sup>35</sup> Tr. 335-36 (Nevels).

<sup>36</sup> Tr. 268 (Turner).

<sup>37</sup> Tr. 250 (Turner).

case, hand-held metering would likely occur<sup>38</sup>, unless the Commission rejects the central principle of the Tariff Sheets and mandates some form of cumulative and continuous metering. AT&T power consumption audits, if approved, would also be taken with hand-held meters<sup>39</sup>.

With respect to billing, the relevant difference between cumulative and hand-held metering is that the former will precisely bill for what has been consumed, while the latter will bill for extrapolated usage based on power consumed at a specific point in time. However, we have already found that the pertinent collocated equipment maintains a sufficiently constant power draw during normal operating conditions. Moreover, we have already made rulings, above, to assure that an approved ordered amp system will be appropriately usage-based. The Commission therefore concludes that an ordered amp methodology using hand-held amperage meters (and, if deployed, the built-in power panel meters described by Joint CLEC witness Turner) is just and reasonable. We next consider the efficacy of alternative measurement systems discussed by the parties.

### **3.) Alternative Measurement System - Supply-Side Metering**

The Joint CLECs argue that AT&T can effectively measure DC power consumption on the supply side of its power delivery cabling arrangements, using the same shunts and PMUs presently installed on the return side. "Using PMUs and shunts is not itself a defective form of measuring actual electricity usage. What was defective was AT&T's choice to install PMUs on the return side of the power delivery arrangement...This [supply side] approach would accurately measure electricity actually used by CLECs." Joint CLECs Init. Br. at 15 (footnotes omitted). Joint CLECs, point out, aptly, that supply-side metering would render leakage irrelevant, "because the leakage takes place at the telecommunications equipment frame [on the return side]." *Id.*

AT&T counters that supply-side metering "creates unnecessary risks to personnel safety and network reliability...complicates central office operations by creating congestion in the cable racks...disrupts CLEC operations...and...is extraordinarily expensive to implement. Because of these serious drawbacks it has not been implemented anywhere in the United States." AT&T Init. Br. at 70. These purported disadvantages of supply-side metering are associated, in varying degrees, with the greater number of installed items required (as compared with return-side metering):

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<sup>38</sup> Joint CLEC witness Turner testifies that a CLEC might have a DC power panel inside its collocation arrangement. "[S]ome DC power panels are equipped with a built-in meter and you can actually go up to the front of them and flip to the meter...and it tells you the amperage." Tr. 266. However, the record contains no evidence that any such built-in meters are present in any ATT-CLEC collocation. Consequently, we cannot make decisions in this case based on the presence of such built-in meters. All the Commission can say here is that *if* such a meter were present at an ATT-CLEC collocation, it would be an acceptable substitute for hand-held metering.

<sup>39</sup> McLeod Ex. 107 (Qwest Data Request 3.13).

There are far more shunts with supply-side metering than there are with return-side metering. Mr. Nevels testified that there are about 15,000 DC power cables serving CLECs in Illinois...so the supply-side metering solution would require 15,000 shunt bars and shunt bar assemblies. This is 7 to 10 times greater than the number of return-side shunts because up to 10 return-side power cables can be aggregated at a single shunt. Each supply side power cable, on the other hand, requires its own shunt...Each of these 15,000 exposed shunt bars would be in locations where a technician or tool could come in contact with a live power circuit, thus causing a short-circuit...An electrical short will likely cause CLEC equipment that is powered by the shorted circuits to lose power. The equipment of other CLECs and AT&T Illinois could also be disrupted. Moreover, personnel injury can also result.

*Id.*, at 71 (citations omitted).

The larger number of shunts and PMUs (“six times as many PMUs as the return-side metering arrangement,” *id.*, at 74) would necessitate substantial new capital expenditures (estimated by AT&T at \$11-\$15 million, *id.*), which, AT&T emphasizes, would be appropriately passed along to the CLECs. In AT&T’s opinion, the greater accuracy of supply-side metering (over return-side metering) would not justify such additional costs. *Id.* The Joint CLECs respond that AT&T itself should bear the cost of improving upon the flawed return-side system it put in place. Joint CLECs Rep. Br. at 68, fn. 192.

Regarding AT&T’s safety concerns, the Joint CLECs reply that shunts “are available with casings that completely cover them so that inadvertent contact by telecommunications personnel or their tools can be avoided, thus avoiding the accidental electrical short and safety issues that AT&T is now concerned about. These casings are also available with simple key locks that can prevent unauthorized or untrained personnel from gaining access.” Joint CLECs Init. Br. at 17 (footnote omitted). AT&T acknowledges that such casings can reduce inadvertent contact, but asserts that “they do not eliminate the need to expose the shunt during installation and maintenance or repair. Anytime a shunt is worked on by a technician, the casing must be opened and the risk of network failure (via shorts) or injury is exposed.” AT&T Init. Br. at 38.

AT&T and the Joint CLECs also disagree about the potential disruption of CLEC operations during an installation of supply-side shunts and PMUs. “Each DC power circuit serving CLECs must be broken in order to install the shunt, interfering with the power flow to the CLEC equipment.” AT&T Init. Br. at 73. The Joint CLECs answer that “AT&T knows how to perform this task without disruption, and because there is a redundant power supply to the CLEC equipment, the installation of the supply side

PMUs can occur without interrupting the power supply to the equipment.” Joint CLEC Rep. Br. at 68 (footnote omitted).

Staff’s position is that “[s]upply-side metering would be significantly more dangerous than return-side metering or hand-held metering...[and] is not sufficiently safe for Staff to recommend it.” Staff Init. Br. at 10. Staff adds that supply-side metering “is far more expensive to install, operate and maintain...than a hand-held metering methodology or than a return-side metering methodology.” *Id.* Staff also contends that supply-side metering installation is “prohibitively disruptive.” *Id.*

The disputes among the parties concern severable (although ultimately interrelated) aspects of supply-side metering - cost, installation and daily operation. Regarding cost, the difference between supply-side and return-side measurement is irrelevant in this forward-looking proceeding. The differences between supply-side metering and other constructive options proposed in this case are important, however. Inarguably (and irrespective of who pays for it), supply side metering is more expensive than hand-held metering, both to install and to operate. Every power delivery arrangement would need its own complex of supply side shunts and PMUs. In contrast, a single, portable hand-held meter can be used to measure consumption at many power arrangements.

With respect to installation, a supply-side metering system necessitates a comprehensive project, across the breadth of AT&T’s collocation sites. Granted that AT&T has done this before. Nevertheless, the *potential* for injury to personnel and equipment, and for network disruption, remains genuine – and, as AT&T stresses, the opportunities for mishap will be substantially greater on the supply side than on the return side, because of the greater number of shunts and PMUs, as well as the stronger power current on the supply side. By comparison, hand-held units require no installation.

As for daily operation, supply-side metering will add to the morass of equipment housed in the cable racks above AT&T’s central offices. “In a supply-side metering architecture, the shunt assembly, shunt bars, shunt covers and the PMU leads would all have to go in the cable racking (but would have to remain accessible), exacerbating congestion where it already exists and creating congestion where it does not...Technicians need to have enough room to work and to efficiently identify the desired cable from the many cables in the rack.” AT&T Init. Br. at 72 (citations omitted). While the Joint CLECs assert that AT&T is exaggerating the congestive impact of supply-side metering, Joint CLECs Rep. Br. at 67, the Commission accords greater weight, in this instance, to AT&T’s experience in managing its own central offices. In any case, by comparison, hand-held meters create no congestion.

Also, AT&T demonstrates that installed PMUs pose other problems for daily operations. “Most of these [PMU] problems resulted from defective CPU circuit cards, for which the manufacturer issued a product defect notice...The service outage lasts until the circuit card can be replaced, which typically takes approximately 2 to 3 days.”

AT&T Init. Br. at 14. AT&T further asserts that “the PMU reliability problem” has persisted. “In 2005, there were 39 new PMU trouble reports and for the first two months of 2006, there were 7 more....The problems with the PMUs are not going away.” *Id.*, at 14-15.

The Commission concludes that installed supply-side metering is not a more reasonable replacement for return-side metering than a method involving hand-held meters and ordered amps. The question is not, as the Joint CLECs appear to suggest, whether the problems, challenges and costs associated with supply-side metering can be overcome. Nothing discussed here is absolutely insurmountable. But our task is to identify the alternative that most efficaciously utilizes personnel, time and money, and it is not, in this case, supply-side metering.

#### **4.) Alternative Measurement System – Split Core Transducers**

The Joint CLECs offer another power measurement alternative, split core transducers (“SCTs”).

[SCTs] are doughnut-shaped devices that measure the power flowing through a particular power feed. The current would be measured by transducers permanently mounted on the supply side of the power feed located close to each CLEC’s collocation equipment. Transducers would be attached to monitors in a different part of the central office. Monitors are capable of measuring and storing power usage on up to 32 sets of power feeds per card within the central office, with a capacity of 4 cards in some instances. After being loaded with the appropriate software, the monitors would be capable of automatically taking frequent power readings over the course of each day and recording them. After the necessary infrastructure is put in place, the data would then be accessed remotely by AT&T and used to calculate the monthly bills.

Joint CLECs Init. Br. at 18 (footnotes omitted).

The Joint CLECs emphasize that SCTs are wrapped around power cables, obviating the need to splice the cables. “[T]hey pose no risk to personnel because there is no exposed power cabling with this form of current measurement...[Also,] installing a transducer would not require supply side leads to be cut or spliced, [so it]... would result in no service interruption.” *Id.*, at 19.

In response, AT&T observes that, “like supply-side shunts, no ILEC in the nation has deployed a split-core transducer metering system and no Commission in the nation has required that they do so.” AT&T Init. Br. at 75. Furthermore, while acknowledging that installation of SCTs does not involve the danger of exposed metal shunts, AT&T

avers that an SCT needs frequent re-calibration “to make sure that it has not been thrown off by changing magnetic fields caused by other electrical equipment in the area.” *Id.*, at 76-77. AT&T also estimates that the installation cost of SCTs would approximate the installment cost for supply-side metering, because a similar number of PMUs would be required. *Id.*, at 77. Additionally, AT&T stresses that the cables on which SCTs would be installed are sewn together and sewn into the cable rack frame, so that they would need to be pried free and separated before installation. *Id.*, at 77-78. Once the SCTs are then placed around the cables, re-sewing is difficult or infeasible. *Id.*, at 78. Moreover, SCTs “would require new input leads and 24 volt converter plants to power them. AT&T Illinois does not have 24 volt converter plants in its central offices and would have to purchase these to power the split core transducers.” *Id.*

Staff states that SCTs “have not been installed in a single central office...environment to date and, thus, are not a proven metering methodology.” Staff Init. Br. at 9. Therefore, Staff “cannot recommend this option to the Commission.” *Id.*, at 15.

The Commission will consider the same elements we examined in our discussion of supply-side metering, above – cost, installation and daily operation. AT&T and Staff both assert, and the CLECs do not deny, that the costs of installing and operating SCTs has not been quantified for the record, except by AT&T, which analogizes to supply-side metering to quantify installation costs. The most we can determine is that installation costs will include much of the new equipment associated with supply-side metering (SCTs and PMUs), plus new cost (24-volt converter plants), plus the additional labor required to un-sew and re-sew cables. Hand-held meters, again, are far less costly to install. We cannot determine the operational costs of SCTs on the record here.

In contrast to supply-side metering, the installation of SCTs will not present the danger of open shunts. It will, however, require cable removal, separation and (if feasible) re-sewing of cables. Hand-held meters require no installation work or risk.

The characteristics of the daily operation of SCTs cannot be discerned from actual experience, since they have never been deployed for DC power measurement in collocation spaces. We can only note that SCTs are likely to need frequent re-calibration in response to changes in the surrounding electromagnetic environment. The Joint CLECs claim that re-calibration can be minimized by installing SCTs on a drop-cable into the collocation space, Joint CLEC Rep. Br. at 69, but AT&T denies this. AT&T Init. Br. at 40-41.

On the record here, the Commission cannot find that SCTs are a more reasonable replacement for return-side metering than a method involving hand-held meters and ordered amps. We cannot determine their costs, and even their theoretical benefits (beyond avoiding the cable splicing associated with supply-side metering) do not apparently exceed the disadvantages claimed by AT&T. It might be that SCTs would merit consideration for new collocation spaces, where existing cables would not have to be dislodged, but even that cannot be determined on this record. While the

Commission does not want to discourage innovation, the proponents of SCTs need to provide a more developed factual platform, including cost information. Furthermore, this is not a case in which the untried option is the only constructive option available.

### **5.) Alternative Measurement System – Engineering Records**

The Joint CLECs propose that they be able to determine their power consumption by consulting their engineering records, where available, in lieu of actual physical measurements. “[I]t is possible that a CLEC could have engineering records that identify power consumption.” Joint CLECs Init. Br. at 55. However, the Joint CLECs largely negate that possibility when they say, “because CLECs had no reason to keep such records in the past, their lack of records that satisfy AT&T is not surprising.” Joint CLECs Rep. Br. at 49. Although they vow to maintain such records in the future, *id.*, that will not enable them to make the initial consumption measurements discussed here. Furthermore, the mere existence of records (that is, records that purport to specifically and recently quantify the active power drain of all pertinent equipment) does not establish their precision regarding actual consumption. There is no record evidence quantifying this<sup>40</sup>. By comparison, all parties concur that hand-held meters are accurate. Staff witness Stewart expressly testifies that physical measurement is superior to engineering records. Tr. 620. Therefore, based on the evidence before us, the Commission cannot find that engineering records are sufficiently available or that they would adequately quantify actual DC power consumption during normal operating conditions.

### **6.) Conclusion**

If precision were the only meaningful variable in this case, the Commission would reject the Tariff Sheets and require cumulative and continuous metering where it is most accurate - on the supply side. But, for the reasons already discussed, precision is not the only significant variable. Cost and safety are also meaningful, and the price and risk of supply-side metering precision is too high. Additionally, as stated above, the installation of supply-side metering or SCTs, even if flawlessly performed, would be both difficult and overly disruptive of existing operations. If not flawlessly performed, the potential for harm to system reliability is appreciable. Moreover, the record indicates that, because of the steady power drain of the pertinent equipment, the measurement differential between cumulative and snapshot metering is not substantial, assuming that snapshot metering correctly reflects usage during normal operating conditions.

Therefore, the Commission finds that an ordered amp system with hand-held metering is the best available option in the record for measuring DC power consumption

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<sup>40</sup> Apparently, by “engineering records,” Joint CLEC witness Turner was referring to the List 1 Drain specified by equipment manufacturers, Tr. 296, which he reasonably presumes the CLECs would have on file. List 1 Drain is “the average ‘busy-hour’ current during normal plant operation, assuming maximum configuration of equipment.” QCC Ex. 1.1 at 4. The record here does not establish that the CLEC equipment involved in this case actually operates at List 1 Drain. Indeed, Mr. Turner indicates it typically operates somewhere below List 1 Drain. Tr. 296.

at collocation sites and for generating bills for that power. It is therefore just and reasonable with the meaning of Section 9-201 of the Act. This conclusion begs the question of how the burdens and consequences of performing measurements, certifying them and re-checking them should be justly and reasonably apportioned among AT&T and the CLECs. There is also a dispute about the justness and reasonableness of AT&T's fuse reduction proposal. We consider those issues next.

## F. Implementation of the Ordered Amp System

The industry parties argue strenuously about many of the implementing elements in AT&T's ordered amp methodology. Although the Commission has found that methodology just and reasonable, as circumscribed by our analysis above, the details of implementation must also be just and reasonable. The disputed implementation elements are addressed below.

### 1.) Who Performs Initial Power Consumption Measurements?

AT&T argues that "CLECs, as the buyers of DC power, should at least be required to tell AT&T Illinois how much DC power they wish to buy so that AT&T Illinois can bill them on that basis. It is a normal part of any business transaction for the buyer to tell the seller how much it wishes to purchase." AT&T Init. Br. at 80-81. Furthermore, AT&T contends, if it were to perform power measurements for the CLECs, it would be entitled to charge for that service<sup>41</sup>. *Id.*, at 51. The industry parties agree that no such rate presently exists, that the Tariff Sheets do not contemplate such a rate (because AT&T wants the CLECs to perform their own measurements) and that a tariff filing would be necessary to establish a rate<sup>42</sup>. Consequently, AT&T reasons, the CLECs will pay

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<sup>41</sup> As an alternative argument, AT&T oddly claims that this Commission lacks "jurisdiction" to direct AT&T to measure collocation power, because power measurement is neither a "telecommunications service" under the Act nor "interconnection" under Commission regulations. AT&T Init. Br. at 50-51. Indeed, even though AT&T acknowledges that CLECs cannot operate their collocated equipment without power ("[f]or DC-powered telephone equipment to operate, electric current must flow from the power source through the battery conductors to the load (i.e., the CLEC equipment bay in the collocation space)," AT&T Ex. 4.0 at 2), AT&T insists that power measurement "has nothing to do with the physical linking of the two networks and does not affect the CLEC's provision of a telecommunications service." *Id.*, at 51. Yet AT&T has for years measured collocation power under state-approved tariff, through return-side metering, without questioning our jurisdiction. Moreover, AT&T's new Tariff Sheets, as originally filed and suspended, were accompanied by a transmittal letter stating that the proposed ordered amp offering "is classified as noncompetitive *interconnection* services [sic] pursuant to the applicable provisions of the [Act]." AT&T Ex. 5.0, Sch. RAS-2 (emphasis added.) Also, AT&T states that the CLEC collocation sites that consume DC power contain at least "the minimum equipment necessary for the purpose of accessing *UNEs or interconnection*." AT&T Init. Br. at 54 (emphasis added). And AT&T cited its DC power quantification method as evidence of fulfillment of its Sections 251(c)(2) and 252(d)(1) *interconnection* duties in its federal Section 271 proceeding before the FCC. Joint Application of SBC Communications, Inc. Illinois Bell Telephone Co., et al., FCC WC Docket 03-167, Memorandum Opinion & Order, (rel. October 15, 2003), ¶¶20-33. In sum, the Joint CLECs aptly characterize AT&T's surprising argument on this point: "If the Commission has no jurisdiction over the measurement of power consumption, then what are we all doing here in this case? This entire proceeding is addressing the measurement of and charging for collocation power." Joint CLECs Rep. Br. at 51.

<sup>42</sup> AT&T Init. Br. at 51; Joint CLEC Ex. 2.1 at 13.

as much, or more, for power measurement by AT&T as they would if they arranged their own measurements. AT&T Rep. Br. at 5. Additionally, AT&T stresses, the CLECs' have superior knowledge regarding the presence and operational condition of the equipment in their own collocation cages.

The Joint CLECs counter that AT&T is simply attempting "to shift to CLECs the costs and administrative burdens of actually taking power usage readings. The power measurement problem arose entirely as a result of AT&T's choice to implement a deficient engineering solution to the Commission's prior orders." Joint CLEC Init. Br. at 40.

The Commission concludes that the CLECs should perform the initial measurement of their respective DC power needs. So long as the CLECs have sufficient time to complete such measurements without undue burden on their personnel and operations (which we ensure elsewhere in this Order), they are in the better position with regard to their own equipment. The CLECs will know whether their own equipment is active (and must be measured and certified to AT&T) or inactive (and need not be self-certified, per our ruling elsewhere in this Order regarding AT&T's proposed minimum usage charge). Additionally, they will not have to coordinate access to their own collocation cages, and they will be more familiar with their own equipment, its configuration and its integration with other CLEC equipment in the cage. AT&T Init. Br. at 5 & 42.

Also, we do not share the CLECs' view that an ILEC's provision of power to a collocation site is directly analogous to an electric utility's provision of power to a retail customer. Joint CLEC Init. Br. at 43, fn. 112. The ILEC hosts collocation as a comprehensive whole; electric power is merely one element in that complex of services. The ILEC creates infrastructure within its own premises (beyond the public power grid) for that purpose, and it segregates and secures the CLECs' power-consuming equipment. It converts the electric utility's AC power to the DC power that CLEC equipment requires. The ILECs do this for their direct competitors pursuant to regulatory fiat, not because they are in the business of offering electric power to the general public. Accordingly, while the ILECs could elect to perform the measurement of CLEC power consumption, in the way an electric utility does for retail customers, the role of collocation host does not intrinsically require such treatment.

The Joint CLECs also insist that, by requiring AT&T to perform the initial measurements of power consumption, we would reduce the likelihood of disputes among the parties. The Commission does not concur. The CLECs are no more likely to unquestioningly accept AT&T measurements than AT&T is likely to accept theirs. The Joint CLECs recognize this. "Certainly, a CLEC may want to check AT&T's billings from time to time by making its own measurements and if there are differences, bringing them to the attention of AT&T."<sup>43</sup> Joint CLEC Rep. Br. at 42. Their own witness agrees that it "would be prudent" for the CLECs to measure their own consumption at the outset of an ordered-amp regime. Tr. 249 (Turner). The Commission believes that proposition

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<sup>43</sup> However, the CLECs do state that "such actions should be optional." Joint CLEC Rep. Br. at 42.

is intrinsically obvious, since a prudent CLEC would want to monitor the performance and efficiency of its own equipment, both for network management purposes and to assess the accuracy of ILEC billing.

Moreover, given our rulings elsewhere in this Order, the CLECs will need to acquire hand-held meters in any case (if they do not already have them) to measure usage for new or freshly activated equipment. Consequently, the initial measurement task should not be meaningfully burdensome or costly for the CLECs – again, so long as adequate time is allowed for that task.

Furthermore, although the CLECs have heretofore had no measurement duties, that does not mean that they have enjoyed free power measurement. Under AT&T's present tariff, the CLECs pay a non-recurring power measurement charge (\$2911.85 per customer arrangement) that recovers the "cost for purchase and maintenance" of PMUs, and a power measurement engineering charge (\$272.47 per previously non-measured power arrangement), that recovers the "costs for installing shunts and associated wiring." AT&T Ex. 1.0 at 13. The one-time responsibility to take hand-held, snapshot measurements at their power delivery arrangements would replace (on a forward-looking basis) the CLECs' obligation to pay for the meters and shunts that cumulatively measure consumption. Further, the CLECs were not shielded from measurement duties in the 2<sup>nd</sup> Interim Order, which required usage-based charges, but did not assign measurement responsibilities to either AT&T or the CLECs.

We recognize the CLECs' assertion that "CLECs in the aggregate have paid AT&T several million dollars in non-recurring charges to establish the power metering system that AT&T now seeks to abandon." Joint CLEC Init. Br. at 32. Further, the CLECs point out that AT&T conducted meetings with Staff in 2002 regarding inaccuracies in their return-side metering system, but "did not inform any CLECs that the existing power metering arrangements may be defective until...this tariff filing in 2005 (Tr. 106-107); and during that period, AT&T continued to install return-side power metering arrangements for CLEC collocations and to collect the associated non-recurring charges (Tr. 107-108)." *Id.*, fn. 83. The Commission finds the latter charge vexing, particularly insofar as one or more CLECs may have paid significant non-recurring charges for power measurement apparatus that AT&T had already formed the intention to jettison.

AT&T replies that "there was no adverse impact to the CLECs because they were *undercharged* for the DC power they have used...[C]ustomers that are systematically undercharged for service are not adversely impacted and almost never complain." AT&T Rep. Br. at 47 (emphasis in original). This argument is overbroad, facile and irrelevant. It is overbroad because, while AT&T has proven the general inaccuracy of its return-side metering regime, it has not proven that every inaccurate measurement was an undercharge (in fact, AT&T also proved up overcharges, albeit minor), or that every collocation was inaccurately metered, or that any specific CLEC (and, particularly, a CLEC that might have paid non-recurring charges shortly before this rate filing in 2005) was undercharged. AT&T's argument is facile because the CLECs

could not “complain” about a metering system that AT&T had not yet characterized to them as inaccurate (indeed, so inaccurate that it would soon be abandoned, effectively “stranding” any recent non-recurring investment by a CLEC). And AT&T’s argument is irrelevant because it wrongly assumes that authorization exists for an offset of recurring undercharges against non-recurring charges. No such offset resides in AT&T’s tariffs and (as AT&T itself emphasizes, AT&T Rep. Br. at 47) AT&T can only do what its tariffs authorize.

That said, AT&T does present the meritorious contention (on which we make *no* ruling here) that it “is lawfully required to charge the rates approved by the Commission [including the non-recurring rates cited by Joint CLECs] until they are superseded or stayed or lawfully modified in some other manner. Joint CLEC cite to no...legal authority that would suggest that the traditional concepts of filed rates and retroactive ratemaking (or refunds) should not operate in the instant case.” *Id.* Of equal importance, even if the CLECs could cite such legal authority, they have not demonstrated that the Commission has statutory power to use this new tariff investigation to, in effect, penalize AT&T, through refund, for allegedly collecting undeserved revenue under its existing tariff. Section 9-201 authorizes us to establish just and reasonable rates that will be prospectively applicable. It is not apparent to us that the statute also allows adjudication of prior conduct for the purpose of awarding refunds.

Whether any CLEC has a basis, under the Act, for a formal complaint against AT&T is another matter<sup>44</sup> – and another subject on which we make *no* ruling in this case. All the commission decides here is that, for the reasons set forth above, responsibility for performing the initial measurement of a CLEC’s DC power consumption can (consistent with the 2<sup>nd</sup> Interim Order) and should justly, and reasonably, be assigned to the CLEC.

## **2.) Time Allotted for Initial Measurements & Certifications**

The parties disagree about the amount of time that should be allowed for the initial measurements of DC power consumption at power delivery arrangements in place on the effective date of the Tariff Sheets. AT&T would allow 90 days; the CLECs want 180. In either case, the Tariff Sheets authorize a true-up, by which AT&T would back-bill (or issue a credit) for the difference between the amount billed to the CLEC during the measurement period and the amount the CLEC would have been billed during that period based on the result of its initial measurements. Nonetheless, AT&T maintains that the longer measurement period will cost AT&T the time value of the presumably greater amount it would have billed for certified consumption, and will expose AT&T to the risk of CLEC bankruptcy during the additional 90 days requested by the CLECs. AT&T Init. Br. at 44.

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<sup>44</sup> We note that in a complaint proceeding, the burden of proof lies with the complaining party, not, as it does in a Section 9-201 investigation, on the proponent of the new tariff.

The CLECS respond that a 90-day deadline would be exceptionally burdensome. Some of the Joint CLECs have more than a hundred collocation sites in Illinois and purport to lack sufficient staff to complete power measurements in the time period AT&T proposes. Joint CLEC Init. Br. at 54. The Joint CLECs also aver that “it would be more efficient to set a longer period so that CLECs could have meters read during their technicians [sic] regular visits to collocation arrangements, rather than force them to make special visits simply to measure power consumption.” *Id.*, at 55.

The Commission concludes that the CLECs' 180-day proposal is just and reasonable, while AT&T's 90-day proposal is not. Although AT&T asserts that the CLECs are exaggerating the burden associated with a 90-day measurement interval, AT&T Init. Br. at 43-44, we do not believe that AT&T has a better perspective on CLEC personnel constraints than the CLECs themselves. AT&T's calculations regarding achievable workloads for CLEC employees are, perforce, the one-dimensional speculation of an outsider looking in. Elsewhere in this Order, with respect to supply-side metering and split core transducers, the Commission accorded AT&T the superior view of the complexities of its own central offices. We accord the CLECs the same degree of credibility regarding their staffing complexities.

Furthermore, the Commission cannot find that AT&T will experience appreciable monetary loss during the additional 90 days the CLECs request. Again, AT&T has demonstrated the general deficiency of return-side metering, but not its specific losses per power delivery arrangement. Since AT&T will continue to bill for DC power during the initial measurement period, and since those bills will be based on three-months of previously metered usage at each power delivery arrangement, all we can conclude from the record here is that AT&T will under-bill in many locations, over-bill in some, and, perhaps coincidentally, meter accurately in others. And, in any case, the true-up mechanism in the Tariff Sheets will insulate AT&T from any under-billing.

As for AT&T's concern about ancillary losses, the Commission does not conclude that the 90-day time value of any under-billing by AT&T outweighs the harm - and potential expense, Joint CLEC Rep. Br. at 44 - claimed by the CLECs if they are required to finish their power measurements in 90 days. Further, as the CLECs put it, AT&T “showed little interest in the time value of money,” *id.*, when it postponed revisions of its DC power tariff in order to concentrate its own resources on “higher priority” proceedings before this Commission. AT&T Ex. 1.1 at 3. Regarding the risk of CLEC bankruptcy, AT&T merely mentions the possibility, but provides no record evidence of likelihood. If AT&T is simply inviting us to draw upon our general experience with prior bankruptcies, we would have to observe that such bankruptcies, along with industry consolidation, may have created a market of stronger CLECs.

### **3.) Time Allotted for New Measurements & Certifications**

As they did with respect to power delivery arrangements in place when the Tariff Sheets take effect, the parties also dispute the appropriate time interval for measuring consumption at *new* collocation arrangements (that is, arrangements turned over to a

collocating CLEC after the effective date of the Tariff Sheets). AT&T would allow 30 days from the turnover of the collocation space to the CLEC. The Joint CLECs want 90 days, or 30 days from the turn-up of the CLEC's equipment in that space, whichever is earlier. The industry parties also disagree regarding true-up of the difference between existing charges and the charges resulting from initial measurement of new collocation arrangements.

In opposing true-up, the Joint CLECs present the same rationale that supports their 90-day/30-day measurement interval - that their power consumption may not be correctly measurable until their equipment is turned up. The Joint CLECs stress that they can only begin installing equipment once a sight has been turned over by AT&T, and that subsequent testing and activation of that equipment may take more than the 30 days AT&T offers. "Thus, a meter reading made within 30 days of the turnover date of the collocation space may be far below the regular power draw once the equipment is fully operational." Joint CLECs Rep. Br. at 45.

Implicitly, the CLECs acknowledge that will be using some modicum of power during the measurement interval as they configure and test their new equipment. Their argument appears to be that they should not have to pay for that power, either initially or in a true-up, because they may running at less than fully normal operating power. That argument is hardly consistent with our expectation that CLECs pay for what they actually consume, during equipment installation or otherwise. On the other side of the coin, by abandoning cumulative metering, AT&T has taken away the means of measuring actual CLEC consumption during the equipment installation period. Consequently, AT&T implicitly advocates the assumption that a hand-held snapshot on or before the 30<sup>th</sup> day after turnover will accurately reflect both forward-looking usage and the prior usage to be trued up. The forward-looking element of that assumption will be correct if the pertinent equipment has in fact reached normal operating amperage. Whether the backward-looking element is correct will not be provable (without continuous real-time metering).

The Commission will resolve this conundrum in the most just and reasonable manner available. The CLEC shall measure and certify DC power consumption (whatever it may be) by the 30<sup>th</sup> day following turnover of collocation space. If the pertinent equipment has attained normal operating power draw on or before that date, the CLEC shall identify that date for AT&T. If normal operating power has not been reached by that time, the CLEC will re-certify once it has done so, and AT&T will true-up the difference between the initial and follow-up readings. However, AT&T cannot true up for any power consumed before the earlier of the date on which the pertinent equipment was turned up or the 30<sup>th</sup> day after turnover of collocation space. The Tariff Sheets do not authorize true-ups from the date of turnover for new collocations. They quantify true-ups by reference to Interim [i.e., pre-tariff revision] Amperage, which is not pertinent to new collocations<sup>45</sup>.

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<sup>45</sup> In its post-hearing briefs, AT&T endeavors to supplement the text of the Tariff Sheets to expressly authorize true-up from the date of turnover of collocation space to the date of certification of a new power delivery arrangement. AT&T Init. Br. at 46. The Joint CLECs object, again on the ground that

We acknowledge, as AT&T points out, that sister commissions in North Carolina<sup>46</sup> and Florida<sup>47</sup> and have authorized true-ups from the date of turnover. Those commissions faced different circumstances, however. The North Carolina Commission denominated *fused amps* as the basis for calculating collocation power charges<sup>48</sup>. Thus, that commission did not link charges to actual consumption, as we did in the 2<sup>nd</sup> Interim Order and do again here. Fused amps reflect the size of the failsafe device on the power supply. The size of the fuse in place during installation of CLEC equipment is a known quantity, while actual power usage during that period is not (absent cumulative metering).

The Florida Commission was concerned that the ILECs there “would stand to lose the return on investments associated with space preparation and power construction.”<sup>49</sup> Here, AT&T recovers the cost of collocation “space preparation” through nonrecurring collocation charges, not through recurring DC power charges. *E.g.*, QCC Ex. 5. Something analogous to Florida’s ‘power construction’ charges apparently are among the costs recovered through AT&T’s recurring DC power charges. But in contrast to Florida (where the Commission viewed metering as a “novelty” that had yet to be tried in that state), AT&T is electing to abandon an existing metering system that could have measured the actual usage to which such charges would apply. This leaves AT&T outside the usage-based mandate of the 2<sup>nd</sup> Interim Order, an existing decision that the Florida Commission did not confront. Furthermore, Florida’s approval of true-ups (at turnover) reflected an express policy of furnishing “motivation” to the CLECs to “ramp up’ as quickly as possible in order to enjoy the economic benefits of providing service to their customers.”<sup>50</sup> The CLECs here maintain that they “need no additional incentive to install and begin operating equipment in their collocation spaces quickly...To the contrary, the sooner that a CLEC’s new collocation arrangement can be fully operational, the sooner it can generate revenues for the CLEC.” Joint CLECs Rep. Br. at 47. We find the CLEC position credible.

#### 4.) Necessity of Re-measurements and Re-Certifications

After the CLECs have submitted their initial certified order for DC power, AT&T wants them to perform semi-annual physical re-measurements of their consumption and re-certify the results to AT&T. AT&T points to testimony by a CLEC witness that CLEC

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consumption before turn-up does not reflect consumption after turn-up. Joint CLECs Rep. Br. at 46. To remain consistent with the 2<sup>nd</sup> Interim Order, the Commission will not approve true-ups from the date of turnover without evidence that the true-up will capture actual usage prior to certification or turn-up of the pertinent equipment. For purposes of discussion in this footnote, the Commission has overlooked the post-hearing presentation of AT&T’s supplemental language, which favors AT&T, and which the other parties have had no opportunity to address through testimony or supporting documents.

<sup>46</sup> Re Provision of Collocation Space, Dckt. No. P-100, Sub. 133, North Carolina Utilities Commission, Order, Sept. 3, 2002, 2002 WL 31103699 (N.C.U.C.) at 54.

<sup>47</sup> Re BellSouth Telecommunications Inc., Docket No’s.981834-TP & 990321-TP and PSC-03-1358-FOF-TP, Florida Public Service Commission, November 26, 2003, 2003 WL 22953570 (Fla. P.S.C.) at 26.

<sup>48</sup> Re Provision of Collocation Space, *supra*, at 54.

<sup>49</sup> Re BellSouth Telecommunications Inc., *supra*, at 23.

<sup>50</sup> *Id.*, at 26.

personnel are likely to be present at active collocation sites every six months. AT&T Rep. Br. at 18 (citing Tr. 252-53 (Turner)). From this, AT&T concludes that a CLEC could readily satisfy the semi-annual re-measurement requirement during the ordinary course of CLEC operations.

While the CLECs dispute AT&T's characterization of CLEC work responsibilities, their more critical objection is that semi-annual re-measurements are unnecessary.

If a CLEC has added no equipment since the last physical meter reading, there is no reason to require it to take a physical site reading again. No witness has disputed the fact that modern, digital telecommunications equipment has very little change in power usage over time, regardless of increases in message traffic. Thus, requiring CLECs to conduct semi-annual audits would be wasteful and costly without adding any measurable accuracy in billing. Moreover, once the initial usage level is established, it is just as likely that actual usage could fall as rise above that level. Thus, CLECs are just as exposed to overpayment as AT&T is exposed to underpayment.

Joint CLEC Rep. Br. at 49.

The Commission agrees that AT&T has not presented a satisfactory rationale for semi-annual re-measurement, or even semi-annual recertification. Our factual finding that collocated telecommunications equipment consumes power on a constant basis is essential to our conclusion that AT&T's ordered amp proposal is sufficiently usage-based to comply with the 2<sup>nd</sup> Interim Order. In view of that finding, there is no apparent justification for directing the CLECs to bear the responsibility and expense of periodically re-measuring and re-certifying power consumption once a baseline has been established through initial measurement.

Rather, re-measurement and re-certification ought to be tied to meaningful changes to the power-consuming equipment in a power delivery arrangement. The Tariff Sheets, as designed by AT&T, are expressly designed to capture such changes and incorporate them in subsequent billing:

If a Collocator increases or decreases its total actual DC current drain on a given power delivery arrangement by more than ten (10) amperes between self-certifications, or modifies or changes its equipment within a collocation space such that it alters the amount of power consumed, it shall submit to [AT&T] a Certification of its revised Collocator-Specified Amperage Load for the affected power delivery arrangement.

AT&T Ex. 5.2, Sch. RAS-14, sec. 16A.

In the Commission's judgment, the foregoing provision, which AT&T would apply *in addition to* the proposed semi-annual re-measurements and re-certifications, accomplishes *by itself* AT&T's objective of maintaining consistency between ordered usage and billing. So long as the CLECs adhere to the foregoing requirement, pro forma semi-annual measurements would be superfluous and unjust and unreasonable.

The Commission notes AT&T's concern that the CLECs may interpret the foregoing provision to apply only when a CLEC adds or removes equipment, but not when the utilization of installed equipment is meaningfully altered, as when dormant equipment is activated. AT&T Init. Br. at 49. We do not know if the CLECs construe the Tariff Sheets in the manner AT&T suggests. In any event, AT&T's concern is reasonable and its interpretation of the above-quoted provision from section 16A of the Tariff Sheets<sup>51</sup> is acceptable to the Commission. However, mandatory periodic re-measurements and re-certifications, after initial certification, are disapproved as unreasonable. If AT&T doubts that a previous certification remains accurate, it can exercise its audit rights under the Tariff Sheets.

### 5.) Warranting Not to Exceed Certified Usage

The Tariff Sheets would require a collocating CLEC to "represent and warrant" that it will not draw more than the amperage load specified in its certification to AT&T. After an initial dispute among the industry parties, AT&T subsequently agreed with a CLEC suggestion to modify the pertinent text, so that the CLEC will warrant only that it will not exceed its specified load "under normal operating conditions." This modification would appear in multiple places in Paragraph 16A of the Tariff Sheets<sup>52</sup> and once in Paragraph 17. The Joint CLECs state that there is now "no dispute on this issue at this point." Joint CLECs Rep. Br. at 63. Qwest and Staff do not address it. Accordingly, the Commission approves the modified text as just and reasonable.

### 6.) Necessity of Warrant by CLEC Officer

In Paragraph 16A of the Tariff Sheets, AT&T proposes to add text by which a collocating CLEC's "responsible officer" will attest that the CLEC is not exceeding the total power load requested in its certification for a *new* collocation arrangement. The Joint CLECs oppose this provision. The Commission finds the development of this issue bewildering. The Joint CLECs themselves proposed essentially identical language for *existing* power delivery arrangements in Joint CLEC Ex. 2.1, Attach. SET-3. Their reasons for objecting to such text for new collocation power arrangements

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<sup>51</sup> "[A] re-certification based on a physical site, measured verification [should] take place whenever the CLEC: 1) activates or de-activates any equipment bay(s) in an existing collocation arrangement; 2) activates or de-activates any equipment shelf in an existing, activated equipment bay; or 3) activates or de-activates any card in an existing, activated equipment shelf." AT&T Init. Br. at 50, fn. 19.

<sup>52</sup> In view of our rejection of the semi-annual re-certification requirement in Paragraph 16A, the modification will not be necessary with respect to that provision.

would apply equally to existing arrangements, but the Joint CLECs do not express opposition to the latter. Nor do they explain themselves on this point.

Nonetheless, Qwest also objects to an officer attestation requirement and did not initially suggest that requirement with the Joint CLECs. Qwest Init. Br. at 8. Moreover, the arguments by Qwest and the Joint CLECs against attestation by a "responsible officer" are cogent. They point out that AT&T is not proposing that its own audit results be similarly attested to when submitted to a CLEC, even though the CLEC, under AT&T's proposal, would experience billing increases and back-billing, based on the accuracy of the audit. Joint CLEC Init. Br. at 57-58, citing Tr. 109-110 (Smith). They further emphasize that when an audit reveals enough excess CLEC power consumption to trigger billing consequences, the CLEC "will be subject to those adjustments and penalties, regardless of who signed the self-certification." *Id.*, at 58.

AT&T replies that a "low-level manager" will bring a lesser "level of focus" than a CLEC officer to assuring the accuracy of self-certification. AT&T Rep. Br. at 22. It is not clear to the Commission why the involvement of even a "low level manager" is necessary to the accuracy of self-certification. Nor is it apparent to us that a "low level manager" would be less than sufficiently focused on accuracy, when mistakes will bring adverse financial consequences to the CLEC and, presumably, adverse employment consequences to the manager. In our judgment, collocation power certification does not merit the special, officer-level treatment AT&T seeks<sup>53</sup>. It is enough that a self-certification bear the name and signature of a person chosen by the CLEC to attest to its accuracy. Nothing in the Tariff Sheets will enable a CLEC to avoid financial consequences on the ground that its attester lacked sufficient rank in the CLEC's hierarchy. AT&T's proposed officer's warrant is unjust and unreasonable.

Despite the Joint CLECs' contradictory treatment of this issue, the Commission directs that the foregoing conclusion apply to both new and existing collocation self-certifications. We are reluctant to reward the CLECs' careless presentation, but it is essential that the tariff, which will have regulatory force and guide future inter-carrier relations, be coherent and consistent.

## **7.) Fee-Based Measurement of CLEC Power Usage by AT&T**

Joint CLEC witness Turner suggested that AT&T could be directed to establish a cost-based, standard rate for measuring CLEC power consumption, which a CLEC could select as an option, rather than performing its own measurements. Joint CLEC Ex. 2.1 at 20-21. The Joint CLECs did not address this suggestion in their Initial Brief, but did in their Reply Brief, in response to AT&T's discussion in its Initial Brief.

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<sup>53</sup> In its Reply Brief, AT&T cites to a Commission Order and certain Commission regulations, as well as to an interconnection agreement provision that is *not* in the evidentiary record here, in which certifications by officers are required. AT&T Rep. Br. at 23. The CLECs and Staff have had no opportunity to address these citations, or to cite other sources wherein the subject matter is arguably more momentous than collocation power, yet no certification is required. In any event, irrespective of AT&T's citations and any counter-citations that might have been offered, the Commission does not believe that officer certification is necessary here.

The Commission declines to require AT&T to present a power measurement rate. The CLECs did demonstrate that certain elements of AT&T's ordered amp regime would imposed undue burden on CLEC operations and personnel, particularly with regard to measurement deadlines and frequency. However, they did not demonstrate, or even assert, that they (or any of them) could not perform their own measurements after their legitimate timing concerns were accommodated.

Thus, the issue is not whether an additional rate filing is a necessity for collocation, but whether such a rate would represent a more just and reasonable policy than allocating power measurement to the CLECs (or their contractors), without recourse to a tariffed AT&T service. The Joint CLECs posit that it would be "more efficient" for AT&T to perform measurements, Joint CLEC Rep. Br. at 52, but AT&T maintains that it would often "be just as much work for AT&T," AT&T Init. Br. at 51, at a potentially greater cost. *Id.*, at 52. This truncated and evidence-deprived debate cannot be resolved on the present record. While the CLECs' proposal does not lack theoretical merit, the Commission holds that we do not perceive, in this case, sufficient reason to undermine our conclusion that the CLECs are in the better position to measure their own DC power consumption.

#### **8.) Frequency of AT&T Audits**

The Tariff Sheets provide that AT&T may "periodically" audit a collocator's DC power usage in order to determine that actual usage conforms to ordered amperage. AT&T views this provision as setting no limits on audit frequency. The Joint CLECs view it as unreasonable, "given the administrative burden that repeated audits would impose on CLECs." Joint CLEC Init. Br. at 65. As an alternative, the Joint CLECs propose that AT&T be limited to one audit per year for each power arrangement, unless that audit reveals a discrepancy between ordered and used amperage exceeding 20%. In such case, "AT&T could audit that collocation arrangement one additional time during the calendar year to ensure compliance." *Id.*

AT&T's principal concern is that a limit on audit frequency will vitiate the deterrent value of the audits. "If...AT&T Illinois conducted an audit at the beginning of the year, the CLEC would know that any usage above the self-certified amount would be undetectable for the remainder of the year." AT&T Init. Br. at 61. The Joint CLECs' primary concern is disruption "caused by the need to respond to repeated notification of changes in usage, with potential back billing and penalties." Joint CLEC Rep. Br. at 60. Neither rationale is particularly constructive. Without an evidentiary basis, AT&T assumes the CLECs will readily violate the prevailing tariff once the likelihood of detection is removed. Ironically, by citing "repeated notification of changes in usage" the CLECs imply that they *will* frequently violate the tariff. If they do, inadvertently or otherwise, then they should be exposed to back-billing, when their excess usage is high enough (i.e., over 10%, per the Tariff Sheets).

The Commission resolves this issue in AT&T's favor. We have already reduced the burden on the CLECs by rejecting AT&T's proposed semi-annual re-certification requirement. By doing so, we have reduced the number of times the CLECs will measure their own usage. It is therefore reasonable to accord AT&T the opportunity to perform its own usage assessments when it believes circumstances warrant. Since AT&T will bear its own audit expenses (absent 20% excess usage), we do not believe it has an incentive to abuse its discretion. Therefore, AT&T's position is just and reasonable.

With respect to back-billing, AT&T witness Smith testified that when one audit does not reveal sufficient excess usage to trigger back-billing, but a subsequent audit does, AT&T would only back-bill to the time of the preceding audit, not to an earlier event that would otherwise determine the start of the back-bill period. Tr. 152-53. The Commission notes that no language to implement that intention is currently in the Tariff Sheets. Such text would be reasonable and fair and must be included in compliance tariffs filed as a result of this proceeding.

### **9.) Distribution of All Audit Results to the CLECS**

The industry parties dispute whether AT&T should provide CLECs with a copy of audit results when those results do not show enough excess power consumption to trigger a billing increase and back-billing. AT&T objects to supplying such audit results. "Without some immediate billing consequence to the CLEC, there is no basis to require AT&T Illinois to bear the expense and administrative burden of preparing and providing the information." AT&T Init. Br. at 63. The Joint CLECs respond that AT&T's "unduly limited use of the audit process fails to take advantage of a resource that could be valuable to both parties." Joint CLEC Init. Br. at 65. They add that they "are not asking AT&T to create any records – simply to share the readings that they take during the audits as a routine course of conducting business." *Id.*, at 66.

The Commission concludes that AT&T should transmit the results of *all* audits to the affected CLEC. AT&T's rationale for withholding results of certain audits is neither reasonable nor supported by credible evidence. It generally alleges an "expense and administrative burden of preparing and providing the information," but never addresses what that burden might be. The Commission cannot infer that there is any burden in "preparing" audit information, since AT&T will always prepare that information to complete the audit, irrespective of the magnitude of usage by the CLEC. As for "providing" the information, AT&T need do no more than what it will do when CLEC consumption exceeds ordered amperage by at least 10% - transmit a copy of the information to the audited party<sup>54</sup>.

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<sup>54</sup> Presumably, this will transpire via email or first class postage. (AT&T customarily disseminates collocation information to CLECs electronically; e.g., AT&T Ex. 5.0, Sch. RAS-3 (an "Accessible Letter"). AT&T protests that the record establishes only that AT&T will record information and transmit it to personnel empowered to take action. AT&T Rep. Br. at 30. Apparently, AT&T believes the Commission cannot infer that audit information will be entered into an AT&T data base. We can and do make that inference. Accordingly, the Commission finds that any incremental cost to AT&T for transmitting results is, at most, trivial.

In contrast, the CLEC rationale for receiving audit results is patently reasonable. "With access to the audit reports, CLECs could attempt to reconcile differences in readings *before* the difference reaches a level necessitating billing adjustments. This would allow for more accurate readings and it would prevent disputes." Joint CLECs Rep. Br. at 60 (emphasis in original). The Commission concurs. If an audit finds, say, 9% excess consumption, the CLEC can check its own equipment, conform its ordered amperage to the audit results, and/or inquire internally, and to AT&T, regarding the basis for the discrepancy. These processes can obviate dispute resolution. Given that AT&T advocates, throughout its briefings, the avoidance of needless inter-carrier disputes<sup>55</sup>, its opposition to constructive information-sharing is unexpected. The distribution of all audit results is just and reasonable.

### **10.) Post-Audit Billing Adjustments**

The Tariff Sheets authorize AT&T to adjust a CLEC's future bills upward if an audit determines that DC power consumption is at least 10% above ordered amperage. Initially, the Joint CLECs took the position that future bills should be similarly revised downward when audited usage had dropped at least 10% below ordered amperage. AT&T objected.

Joint CLECs have now revised their stance and "will not insist that AT&T should be required to make downward as well as upward billing adjustments based on the results of its audits, so long as CLECs (1) are provided with notification by AT&T of all audit results; and (2) receive the audit results. The CLEC can then use that information to evaluate whether it wants to submit a revised self-certification to AT&T." Joint CLEC Rep. Br. at 62. Neither Qwest nor Staff have staked out a position on this issue.

The Commission has approved the Joint CLECs' request to modify the Tariff Sheets to require distribution of all audit results. Therefore, the necessary foundation for the Joint CLECs' waiver regarding downward post-audit adjustments is in place. It follows that AT&T's position on this issue should prevail. It is just and reasonable.

### **11.) Collaboration on Audit Forms**

The industry parties agree that an AT&T audit notification form will include the following information: "a) the date and time of audit; b) the location of the collocation arrangement audited (by CLLI, fuse position and bay); c) the equipment used to perform the audit (by manufacturer and model) and d) the number of amps measured." Joint CLEC Init. Br. at 66. Nevertheless, the Joint CLECs seek a requirement that AT&T collaborate with them to develop a standard audit notification form. They concede, however that "[t]his is admittedly a small issue that will have no consequence if AT&T creates a form that effectively provides the necessary information." AT&T calls the Joint CLEC position "pointless." AT&T Init. Br. at 64. The Commission agrees - and is

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<sup>55</sup> *E.g.*, "[s]uch a requirement could only lead to unnecessary disputes which may have to be resolved by the Commission, with the attendant delay and expense." AT&T Init. Br. at 64.

dismayed that this issue was not withdrawn before unnecessary briefing and decision-making.

## 12.) Impact of Dispute Resolution

The Tariff Sheets state that when an audit finds excess collocation power consumption of 20% or more, the CLEC will reimburse AT&T's audit costs. Initially, the industry parties perceived a dispute about the effect of a later revision to that finding - through dispute resolution - in which excess usage was reduced below 20%. They now appear to agree that, in such cases, AT&T will not receive reimbursement. AT&T proposes language to that effect in its Reply Brief, at 34: "If, as a result of the dispute resolution process, an audit result that initially qualified for reimbursement is determined to fall below the reimbursement thresholds set forth above, Collocator will not be required to reimburse AT&T Illinois for its cost of the audit." The Commission finds this language just and reasonable and approves it for inclusion in the Tariff Sheets.

Joint CLECs also request a true-up of any additional usage charges it may have paid in response to an audit that is later determined to have been incorrect. AT&T witness Smith indicates that AT&T would continue billing at the previous certified rate pending dispute resolution. Tr. 153. In briefing, AT&T clarifies that it would probably bill, but not collect, the disputed amount. AT&T Init. Br. at 69. In AT&T's view, this obviates the need for a true-provision. However, nothing in the Tariff Sheets either binds AT&T to refrain from collection or authorizes the CLEC to withhold payment. Moreover, nothing mandates true-up after dispute resolution. Although AT&T contends that applicable dispute resolution mechanisms will dictate some sort of outcome, *id.*, the Commission wants a clear directive that achieves the result we deem reasonable and fair. Thus, we find it just and reasonable that true-up should be provided for in the Tariff Sheets, applicable to any DC power consumption charges paid that would have not been paid if the audit had been correct<sup>56</sup>. If AT&T does not, in fact, collect such charges pending dispute resolution, than there will simply be nothing to true-up.

## 13.) Fuse Reduction

AT&T's proposed Tariff Sheets include a "power fuse reduction" provision, applicable to power delivery arrangements from either a BDFB or main power board. Pursuant to this provision, a CLEC would voluntarily reduce the size of the fuses associated with a power delivery arrangement. The CLEC would pay an order charge, but not for the specific tasks performed (fuse rearrangement, restenciling power plants, re-tagging cables, updating power records, vendor engineering and, when necessary, removing and provisioning power cables). AT&T avers that the primary reason for

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<sup>56</sup> Accordingly, the language presented in AT&T's Reply Brief, and approved above, should be supplemented as follows: "If, as a result of the dispute resolution process, an audit result that initially qualified for reimbursement is determined to fall below the reimbursement thresholds set forth above, Collocator will not be required to reimburse AT&T Illinois for its cost of the audit. Also, if, as a result of the dispute resolution process, an audit result is modified, so that any amounts actually paid by the Collocator are inconsistent with the modified audit results, such amounts shall be subject to true-up."

offering power fuse reduction is to enable CLECs “to inexpensively reduce (not increase) the fuse sizes on their power delivery arrangements in order to bring them into compliance with [83 Ill. Adm. Code Part] 785.55(a)(1), if necessary.”<sup>57</sup> AT& T Init. Br. at 58.

The Joint CLECs seek modification of the foregoing provision, to make it applicable to *both* increases and decreases in fuse size, including increases that *follow* reductions. With such modification, if a CLEC elects fuse reduction, but later wants to increase fuse sizing (perhaps to accommodate additional power needs associated with business growth), the same price feature (i.e., just a service order charge) would be available. The Joint CLECs argue that its proposed modification “will actually provide an incentive to consider the fuse reduction proposal because there will be certainty as to the rates that will apply in the event that a CLEC later needs to increase its fuse size again after having taken the [power fuse reduction].” Joint CLEC Init. Br. at 58.

AT&T counters that “CLECs that are growing...see this as an opportunity to get something (i.e., upgraded fuse sizes and cable changes) for next to nothing (i.e., nominal service order charges).” AT&T Rep. Br. at 29. AT&T adds that:

Power augments are a sign that competitors are winning new business and are a good sign for competition in general. There is absolutely no rationale, however, for allowing these growing CLECs to increase their power capacity at subsidized rates. Rather, standard tariff charges should apply so that AT&T Illinois can recover its costs for performing the power augmentation work.

*Id.* (footnote omitted).

The Commission rejects the Joint CLECs' proposed modification. The power fuse reduction provision is a discount that AT&T voluntarily offered, and that a CLEC can elect or leave alone. The CLECs erroneously presume that a voluntary offer to discount one thing invokes an obligation to discount other things. Furthermore, their claim that additional discounts will supply incentive to utilize the offered discount is, even if true, irrelevant. The CLECs have not established that AT&T is obliged to offer any discount, much less a maximally effective discount, for fuse size reduction. Moreover, with regard to incentives, were we to approve the CLEC's proposed modification, AT&T would have scant incentive to offer any discount at all. AT&T's fuse reduction proposal is just and reasonable.

## VI. FINDINGS AND ORDERING PARAGRAPHS

The Commission, having considered the entire record herein and being fully advised in the premises, is of the opinion and finds that:

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<sup>57</sup> Part 785.55(a)(1) limits fuse size so that a fuse's shut-off threshold will not be too large to respond to dangerous conditions.

- (1) AT&T is an Illinois corporation that owns or controls, for public use in Illinois, property or equipment for the provision of telecommunications services in Illinois and, as such, is a telecommunications carrier within the meaning of §13-202 of the PUA;
- (2) the Commission has jurisdiction of the parties hereto and the subject matter hereof;
- (3) the recitals of fact and conclusions and conclusions of law reached in the prefatory portion of this Order are supported by the record and are hereby adopted as findings of fact and conclusions of law;
- (4) subject to the determinations made and conditions imposed by the Commission in this Order, the Tariffs Sheets proposed by AT&T and modified by agreement among the parties in this proceeding, are just and reasonable;
- (5) AT&T should be authorized to file and place into effect such Tariff Sheets, as modified by agreement among the parties to this proceeding, and subject to the determinations made and conditions imposed by the Commission in this Order;
- (6) pursuant to Section 9-102 of the Act, such Tariff Sheets shall be filed or posted in accordance with Section 9-103 of the Act;
- (7) the new effective Tariff Sheets authorized to be filed by this Order should reflect an effective date no earlier than 30 days after the date of filing, with the Tariff Sheets to be corrected, if necessary, within that time period;
- (8) any objections, motions or petitions filed in this proceeding which remain undisposed of should be disposed of in a manner consistent with the ultimate conclusions herein contained.

IT IS THEREFORE ORDERED that AT&T's proposed revisions to its Collocation Tariff, Ill. C.C. No. 20, Part 23, Section 4 tariff sheets, as modified by agreement among the parties in this proceeding, and subject to the determinations made and conditions imposed by the Commission in this Order, are hereby approved and shall be filed with this Commission by AT&T in the manner and on the schedule established in the findings (6) and (7) in this Order.

IT IS FURTHER ORDERED that any objections, motions or petitions not previously disposed of are hereby disposed of consistent with the findings of this Order.

IT IS FURTHER ORDERED that subject to the provisions of Section 10-113 of the Public Utilities Act and 83 Ill. Adm. Code 200.880, and unless reviewed by the

Administrative Law Judge's Proposed Order

Commission under Section 13-515(d)(8) of the Public Utilities Act, this Order is final; it is not subject to the Administrative Review Law.

DATED

June 5, 2006:

BRIEFS ON EXCEPTIONS DUE:

June 9, 2006

REPLY BRIEFS ON EXCEPTIONS DUE:

June 26, 2006

David Gilbert  
Administrative Law Judge