

BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

OCT 18 2012

In the Matter of the Complaint Against AT&T)
by Gary Ferguson.

by
State Corporation Commission
of Kansas

) Docket No. 12-SWBT-746-COM

NOTICE OF STATUS UPDATE FILING

Staff hereby files a Status Update, attached hereto and made a part hereof by reference. The Status Update provides an update in regard to the Formal Complaint filed on April 13, 2012, by Gary Ferguson against Southwestern Bell Telephone Company d/b/a AT&T Kansas ("AT&T") regarding noise disruption on his telephone line since July 2008. On September 27, 2012, Staff received updates surrounding AT&T's collaboration with Westar to resolve the matter. On October 5, 2012, Staff contacted the complainant who stated the noise level has been reduced but not eliminated. AT&T and Westar continue to collaborate. Staff will provide another update on this matter by November 23, 2012.

Respectfully submitted,



Michael Neeley #25027
Attorney for Staff
Kansas Corporation Commission
1500 SW Arrowhead Rd.
Topeka, KS 66604-4027
(785) 271-3173

STATE OF KANSAS)
) ss.
COUNTY OF SHAWNEE)

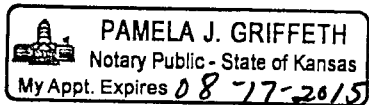
VERIFICATION

Michael Neeley, being duly sworn upon his oath deposes and states that he is Litigation Counsel for the State Corporation Commission of the State of Kansas, that he has read and is familiar with the foregoing *Notice of Status Update Filing*, and that the statements contained therein are true and correct to the best of his knowledge, information and belief.



Michael Neeley # 25027
Kansas Corporation Commission of the
State of Kansas

Subscribed and sworn to before me this 18th day of October, 2012.



Notary Public

My Appointment Expires: August 17, 2015

1500 SW Arrowhead Road
Topeka, KS 66604-4027



Phone: 785-271-3100
Fax: 785-271-3354
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner

Sam Brownback, Governor

**STATUS REPORT
UTILITIES DIVISION**

STATE CORPORATION
COMMISSION

OCT 16 2012

TO: Chairman Mark Sievers
Commissioner Thomas E. Wright
Commissioner Shari Feist Albrecht

PATRICE PETERSEN-KLEIN
EXECUTIVE DIRECTOR

FROM: Kelly Mabon

DATE: October 16, 2012

DATE SUBMITTED TO EXECUTIVE DIRECTOR: 10/16/12

DATE SUBMITTED TO LEGAL: 10-17-12

DATE SUBMITTED TO COMMISSIONERS: 10-18-12

SUBJECT: Docket No. 12-SWBT-746-COM
Complaint Against Southwestern Bell Telephone Company d/b/a AT&T Kansas
by Gary Ferguson

STATUS UPDATE

The purpose of this Status Report is to provide an update in regard to the Formal Complaint filed on April 13, 2012, by Gary Ferguson of 27953 West 95th Street, Desoto, Kansas, against Southwestern Bell Telephone Company d/b/a AT&T Kansas (AT&T) regarding noise disruption that had been ongoing on his telephone line since July 2008. No Commission action is required at this time.

On May 14, 2012, AT&T filed a Response to the Formal Complaint. In the response, AT&T stated the following:

- For the past several years, following the customer's complaint directly to AT&T, the respondent has undertaken to resolve alleged static or a "hum" on Complainant's access line to his home at 27935 West 95th St., DeSoto, Kansas.
- In the past 18 months alone, AT&T has incurred 112 man hours of work and approximately \$2,300 in contractor and other construction costs to resolve the "hum" on Complainant's line. AT&T has examined the cable shielding and every splice point along the cable route serving Complainant. AT&T has also replaced approximately 1,200 feet

of cable and drop serving the Complainant that was previously damaged by road construction work.

- AT&T placed an ISOBAR in the Complainant's home to try and eliminate any issues possibly caused by the home's AC wiring. An ISOBAR is a power supply or power strip designed to isolate anything plugged into it from imbalances or defective shielding in the AC wiring of a house or business. The ISOBAR resulted in a reduction of audible noise, but marginal noise levels were still detectable on the actual cable and cable pair. Because the "noise" persisted, Multi Neutral Ground (MNG) bonds were placed in an effort to counteract current induced on the cable by the power grid in the area serving the Complainant.
- AT&T suspects the root cause of the problem is related to slot harmonics caused by the power grid in the area, together with the fact that Complainant uses cordless telephones, which can be adversely affected by high power influences. At this time, AT&T is presently working with Westar, the electric utility for Complainant's location, to study the power in the area and determine whether the grid is causing a high power influence on the Complainant's phones and AT&T's plant serving the Complainant.
- As a result of its investigation and work, AT&T does not believe the issues complained of are being caused solely by its network plant. AT&T is actively working with Westar to study and investigate any potential power issues associated with Complainant's location that may be affecting Complainant's cordless phones and AT&T's network.

Staff sent DR #1 to AT&T to further understand what steps have been taken and why the hum is still detected on the customer's line. AT&T's response to DR#1, which was provided on July 2, 2012, included issues related to Westar's power grid.

Staff has been receiving periodic updates from Westar regarding steps being taken to isolate the cause of the noise on the phone lines.

On August 23, 2012, Staff received an update from Westar. (Attachment 1)

In addition, on September 27, 2012, Staff received the following update regarding items discussed between Westar and AT&T:

1. The Company will be putting the lines in the area back to normal feeds (circuit configuration). Westar will be scheduling this circuit re-configuration and will have a rep from AT&T on-site to measure changes in phone noise levels.
2. The Company needs to determine a better understanding the harmonics in this area. This is a complex area wide system model that needs to be created to analyze the harmonic current transfer throughout the system (not just a local thing).
3. The Company spoke with the customer's wife and she hasn't noticed the phone line noise (possibly since the circuits have been temporarily configured).

Staff has asked to be updated when data is received from further testing.

After contacting the customer on October 5, 2012, Staff was told that although the noise level has been reduced, there is still a hum detected on the telephone line.

The complaint involves both Westar and AT&T engineers and technicians who continue to collaborate to solve this problem for the customer. Staff will continue to monitor the activity and provide an update by November 23, 2012, to the Commission.

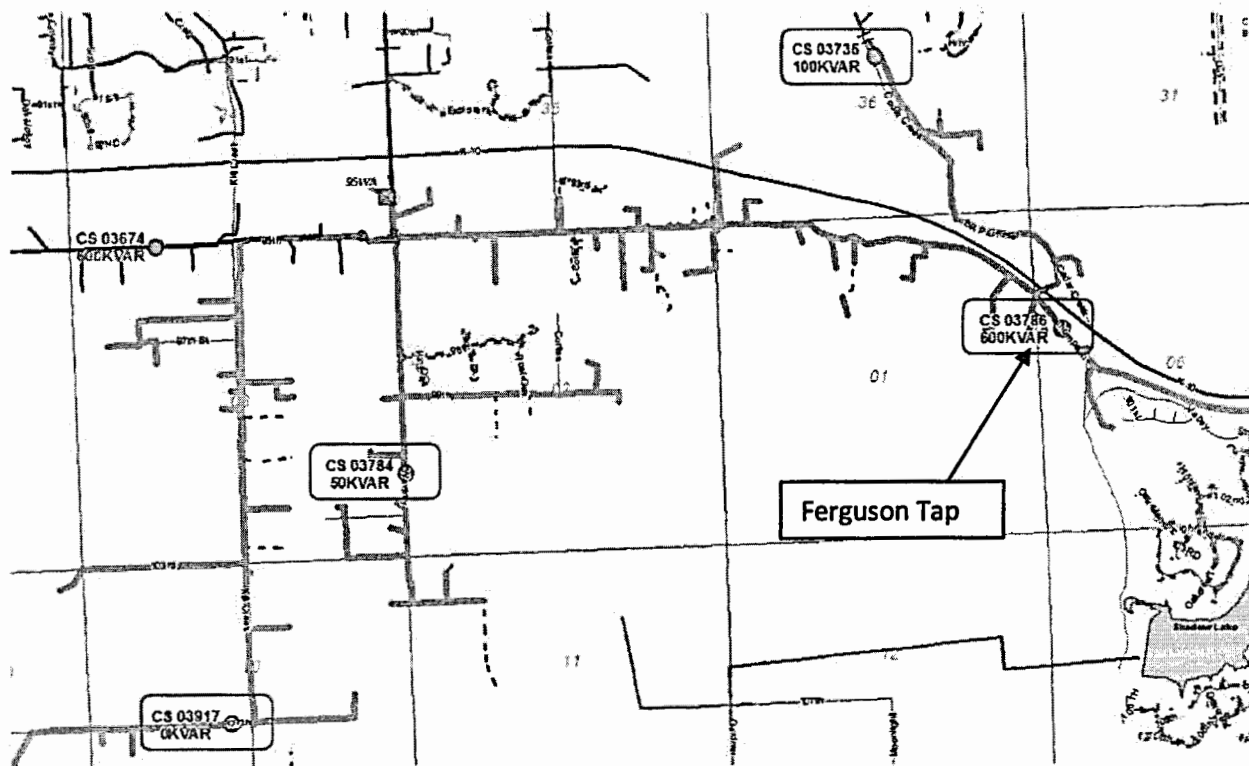
cc: Patrice Petersen-Klein, Executive Director
Jeff McClanahan, Utilities Director
Christine Aarnes, Chief of Telecommunications

Ferguson, Desoto
Readings August 14, 2012

On August 14, 2012 readings were taken by AT&T technicians at the service line for Gary Ferguson while a Westar crew switched 12kV capacitor banks in this area to note changes in phone noise levels.

Initial readings at the Ferguson tap were 91dB. Two capacitor banks in the immediate area were initially off line. The table below describes the change in dB levels by switching various capacitors. Note that switching CS 3784 off line actually raised the dB level about 2dB. CS 3784 was left off line due to a bad switch that was found (tracking in the rain).

Scenario	Measured (approx)	Capacitor CS 3735	Capacitor CS 3786	Capacitor CS 3784	Capacitor CS 3917
1	91dB	off	off	on	on
2	93dB	on	off	on	on
3	93dB	off	on	on	on
4	93dB	off	off	off	on
5	93dB	off	off	off	off



Ferguson, Desoto
Readings August 14, 2012

Below is a table comparing readings taken on Aug 7 & 14 (AT&T cable current)

	Aug 7	Aug 14
	AT&T Cable at 95th & Corliss	AT&T Cable at 95th & Corliss
Fundamental Current	4.94	1.24
3rd Harmonic Current	1.76	1.12
9th Harmonic Current	0.22	0.35
Weather	Hot, Sunny	Cool, Overcast, Rain
Ferguson dB	91	91
Corliss tap dB	90?	79

Westar electric loads (60Hz power) were lower on Aug 14 due to the cool & rainy weather. There were still significant amounts of 3rd & 9th harmonic currents in the AT&T cable (and probably Westar's neutral conductor) attributed to non-linear loads (electronics) at our customers' premises. These types of harmonic currents are becoming "new normal" for power systems.

With AT&T lines tied into Westar's multi-point neutral/ground system, the neutral currents are now shared between AT&T & Westar. The AT&T cable is "helping" to get the Westar neutral current back to our substation at 95th & Waverly. This return path is the shortest electrical distance & may be using the AT&T cable more than Westar's neutral conductors.

For further discussion:

If the AT&T phone lines (tip to ring) were "perfectly" balanced, there would be no voltage induced/conducted into these lines from the harmonic current flowing through the phone line. Could there be areas where the cable is not balanced? Harmonic currents produce more voltage in cables due to the inductance of the line. (i.e. 1 amp of 9th harmonic current will produce 9 times the induced voltage as compared to 1 amp of fundamental 60Hz current)

CERTIFICATE OF SERVICE

12-SWBT-746-COM

I, the undersigned, hereby certify that a true and correct copy of the above and foregoing Notice of Status Update Filing was placed in the United States mail, postage prepaid, or hand-delivered this 18th day of October, 2012, to the following:

GARY FERGUSON
27935 WEST 95TH ST
DE SOTO, KS 66018
gary.ferguson@urs.com

MICHAEL NEELEY, LITIGATION COUNSEL
KANSAS CORPORATION COMMISSION
1500 SW ARROWHEAD ROAD
TOPEKA, KS 66604-4027
Fax: 785-271-3167
m.neeley@kcc.ks.gov
Hand Delivered

BRUCE A. NEY, GENERAL ATTORNEY
SOUTHWESTERN BELL TELEPHONE CO.
D/B/A AT&T KANSAS
220 SE 6TH AVE RM 515
TOPEKA, KS 66603-3596
Fax: 785-276-1948
bruce.ney@att.com



Pamela Griffeth
Administrative Specialist