DIRECT TESTIMONY

OF

ROBERT E. SCHALLENBERG

Submitted on Behalf of the Office of the Public Counsel

SPIRE MISSOURI INC. SPIRE MISSOURI EAST SERVICE TERRITORY SPIRE MISSOURI WEST SERVICE TERRITORY

CASE NO. GO-2019-0115 CASE NO. GO-2019-0116

March 29, 2019

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of)	
Spire Missouri Inc. to Change its)	
Infrastructure System Replacement)	File No. GO-2019-0115
Surcharge in its Spire Missouri East)	
Service Territory)	
In the Matter of the Application of)	
Spire Missouri Inc. to Change its)	
Infrastructure System Replacement)	File No. GO-2019-0116
Surcharge in its Spire Missouri West)	
Service Territory)	

AFFIDAVIT OF ROBERT E. SCHALLENBERG

STATE OF MISSOURI)) ss COUNTY OF COLE)

Robert E. Schallenberg, of lawful age and being first duly sworn, deposes and states:

1. My name is Robert E. Schallenberg. I am a Director of Policy for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my direct testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Kobert (Scheller

Robert E. Schallenberg Director of Policy

Subscribed and sworn to me this 29th day of March 2019.



JERENE A. BUCKMAN My Commission Expires August 23, 2021 Cole County Commission #13754037

Jerene A. Buckman Notary Public

My Commission expires August 23, 2021.

DIRECT TESTIMONY OF ROBERT E. SCHALLENBERG SPIRE MISSOURI EAST SPIRE MISSOURI WEST

CASE Nos. GO-2019-0115 and GO-2019-0116

1	Q.	What is your name and what is your business address?									
2	A.	Robert E. Schallenberg, PO Box 2230, Jefferson City, Missouri 65102.									
3	Q.	By whom are you employed and in what capacity?									
4	А.	I am employed by the Missouri Office of the Public Counsel ("OPC") as Director of Policy.									
5	Q.	Have you previously provided testimony before the Missouri Public Service									
6		Commission?									
7	A.	Yes.									
8	Q.	What is your work and educational background?									
9	A.	A copy of my work and educational experience is attached to this testimony as Schedule RES-									
10		D-1.									
11	Q.	What is the purpose of your testimony?									
12	A.	My testimony is to address the concerns regarding Spire's application for an Infrastructure									
13		System Replacement Surcharge ("ISRS") in Case Nos.GO-2019-0115 and GO-2019-0116.									
14		Specifically, my testimony will address the amount of overhead Spire has included as part									
15		of its application and their justifications for these overheads being recoverable through an									
16		ISRS.									

Q. What exactly is the nature of your concern?

A. My concern is that Spire has included overhead costs for recovery in their ISRS that are not ISRS eligible. I have this concern for four reasons. First, overhead by its nature is not normally an eligible ISRS cost. Overhead represents the ongoing business expenses not including or related to direct labor or direct materials used by a utility. It is something that a utility must pay on an ongoing basis, regardless of how much or how little the company is producing. In fact, overhead by default is not considered a construction cost and the FERC USOA has a specific rule that governs what overhead can be included in construction costs:

Overhead construction costs.

A. All overhead construction costs, such as engineering, supervision, general office salaries and expenses, construction engineering and supervision by others than the accounting utility, law expenses, insurance, injuries and damages, relief and pensions, taxes and interest, shall be charged to particular jobs or units on the basis of the amounts of such overheads reasonably applicable thereto, to the end that each job or unit shall bear its equitable proportion of such costs and that the entire cost of the unit, both direct and overhead, shall be deducted from the plant accounts at the time the property is retired.

B. As far as practicable, the determination of pay roll charges includible in construction overheads shall be based on time card distributions thereof. Where this procedure is impractical, special studies shall be made periodically of the time of supervisory employees devoted to construction activities to the end that only such overhead costs as have a definite relation to construction shall be capitalized. The addition to direct construction costs of arbitrary percentages or amounts to cover assumed overhead costs is not permitted.

C. The record supporting the entries for overhead construction costs shall be so kept as to show the total amount of each overhead for each year, the nature and amount

of each overhead expenditure charged to each construction work order and to each utility plant account, and the bases of distribution of such costs.

The problem from Spire's perspective is that, in order to be eligible for recovery under an ISRS, a cost must be directly caused by the ISRS project itself. This means that Spire must be able to prove that the overheads it has included in this filing are, in fact, caused by these ISRS projects in order to recover them. Stated differently, Spire must prove that their overhead costs are an "incremental" increase above those overheads already being collected in base rates. This is difficult to do given that the ISRS is primarily meant to recover construction costs that should not affect general overheads.

This leads into the second reason for my concern which is the sheer size of the overhead that Spire has included in its application. The data shows that the single biggest cost driver in this application is overheads. Spire has included approximately \$50 million in overhead costs in Spire East and close to \$93 million in overhead costs in Spire West. See Schedule RES-D-2. This overhead makes up 55.62% of the total cost of projects in Spire East and 45.40% of the total costs of projects in Spire West. For a category of costs that would normally be marginal compared to the direct costs for any given project or program, these overhead costs dominate.

The third reason is the Company's response to the data requests, which do not show the existence of effective internal controls to prevent the inclusion of inappropriate overhead costs. The OPC sent Spire a data request which asked, in part, for "[a] narrative description of what measures Spire has in place to ensure all costs that <u>might</u> be included Page 3 of 5

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in the line labeled "overhead costs" for any given "individual project analysis" are not already being collected in base rates[.]" See Schedule RES-D-3. Spire responded to this data request by stating that: Projects are flagged as ISRS eligible or non-ISRS eligible. Those projects that are deemed ISRS eligible are all projects that meet the requirements within the ISRS statute including the requirement that all projects 'were not included in the gas corporation's rate base in its most recent general rate case.' Therefore, overheads for projects that are deemed ISRS eligible are incremental to any overheads associated with projects that are included in the rate base used in the Company's current base rate revenue requirement." See Schedule RES-D-4. This response does not directly answer the question. Because a project is eligible for ISRS consideration does not mean that costs charged to the project are ISRS eligible costs. For example Spire could be charging portions of the personnel cost of its human resources department to these ISRS projects; however, these human resource related costs should not have a direct or indirect relationship to the ISRS project and should therefore not be charged to the ISRS. On the other hand, the charging of vacation and benefits costs to the project's direct labor would be appropriate, since these cost are directly related to the direct labor of the ISRS project. Unfortunately, I cannot verify, based on the information Spire provided, that it correctly charged only the overheads that are ISRS related and did not include the overheads already in base rates or not directly ISRS related.

Finally, my fourth reason for having a concern regarding Spire's overhead is that the company has a finical incentive to recover its general overhead costs through both

current base rates and through the ISRS surcharge. In fact, the company has an enhanced incentive for overstating its overhead costs. This is because the company recognizes an immediate benefit due to the fact that each dollar of overhead charged to the ISRS will reduce the company's expense by the same amount. The Company also, however, enjoys a long-term financial benefit since the overhead will be put in rate base in future rate cases, where the company will receive both a return of and on the overhead included in plant.

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Based on these concerns, what is your recommendation?

A. My personal recommendation is that the filing should be rejected as non-compliant with the ISRS statute and Spire should be directed to refile either with these overhead costs removed or with additional supporting documentation demonstrating that these costs are in fact ISRS eligible.

On advice of my counsel, I would, however, also recommend that at a minimum these ISRS overhead costs should be disallowed at this time and that the Commission open an investigatory docket to examine and determine whether Spire is including non-ISRS related overhead costs or including overhead costs already being recovered in base rates.

Q. Does this conclude your direct testimony?

A. Yes, it does.

CASE PROCEEDING PARTICIPATION ROBERT E. SCHALLENBERG

<u>COMPANY</u>	CASE NO.
Grain Belt Express Clean Line, LLC	EA-2016-0358
Spire, Inc. EnergySouth, Inc.	GM-2016-0342
Great Plains Energy, Inc. Westar Energy, Inc.	EM-2016-0324
Kansas City Power & Light Company	ER-2016-0285
The Empire District Electric Company, Liberty Utilities (Central) Co. and Liberty Sub Corp.	EM-2016-0213
Laclede Gas Company	GF-2015-0181
The Empire District Electric Company	AO-2012-0062
KCP&L Greater Missouri Operations Company	ER-2010-0356
Kansas City Power & Light Company	ER-2010-0355
Great Plains Energy Incorporated, Kansas City Power & Light Company	ER-2009-0090
Great Plains Energy Incorporated, Kansas City Power & Light Company	ER-2009-0089
Great Plains Energy Incorporated, Kansas City Power & Light Company, Aquila, Inc.	EM-2007-0374
Union Electric Company, d/b/a AmerenUE	ER-2007-0002
Missouri Pipeline Company	GC-2006-0491
Aquila, Inc.	ER-2005-0436
Union Electric Company, d/b/a AmerenUE	EA-2005-0180
Union Electric Company, d/b/a AmerenUE	EC-2002-1
Mississippi River Transmission	RP96-199-000
Williams Natural Gas Company	RP96-173-000

Schedule RES-D-1 Page 1 of 9

CASE PROCEEDING PARTICIPATION ROBERT E. SCHALLENBERG

Williams Natural Gas Company	RP95-136-000
Williams Natural Gas Company	RP94-365-000
Laclede Gas Company	GR-94-220
Western Resources	GM-94-40
COMPANY	CASE NO.
Western Resources	GR-93-240
St. Joseph Light & Power Company	ER-93-41
Southwestern Bell Telephone Company	TC-93-224
St. Joseph Light & Power Company	EC-92-214
Kansas Power & Light Company	GR-91-291
Kansas Power & Light Company	EM-91-213
Arkansas Power & Light Company	EM-91-29
Missouri Public Service Company	ER-90-101
Southwestern Bell Telephone Company	TR-90-98
General Telephone	TR-89-182
Southwestern Bell Telephone Company	TO-89-56
Southwestern Bell Telephone Company	TC-89-14
Union Electric Company	EC-87-114
General Telephone	TC-87-57
General Telephone	TM-87-19
General Telephone	TR-86-148
Southwestern Bell Telephone Company	TR-86-84
Kansas City Power & Light Company	EO-85-185
Kansas City Power & Light Company	ER-85-128

Schedule RES-D-1 Page 2 of 9

CASE PROCEEDING PARTICIPATION ROBERT E. SCHALLENBERG

Southwestern Bell Telephone Company	TR-83-253
Kansas City Power & Light Company	ER-83-49
Southwestern Bell Telephone Company	TR-82-199
Kansas City Power & Light Company	HR-82-67
Kansas City Power & Light Company	ER-82-66
Southwestern Bell Telephone Company	TO-82-3
Southwestern Bell Telephone Company	TR-81-208
Kansas City Power & Light Company	ER-81-42
<u>COMPANY</u>	CASE NO.
Southwestern Bell Telephone Company	TR-80-256
United Telephone Company of Missouri	TR-80-235
Kansas City Power & Light Company	ER-80-204
Kansas City Power & Light Company	ER-80-48
Kansas City Power & Light Company	ER-80-48
Southwestern Bell Telephone Company	TR-79-213
Gas Service Company	GR-79-114
Missouri Public Service Company	ER-79-60
Missouri Public Service Company	ER-79-61
Kansas City Power & Light Company	ER-78-252
Missouri Public Service Company	GR-78-30
Missouri Public Service Company	ER-78-29
Gas Service Company	GR-78-70
Kansas City Power & Light Company	ER-77-118

Schedule RES-D-1 Page 3 of 9

Grain Belt Express Clean Line, LLC Case No. EA-2016-0358 Date: January 24, 2017 (Rebuttal Report) Areas: **Public Comments** Spire, Incorporated EnergySouth, Inc. Case No. GM-2016-0342 September 1, 2016 (Investigation Report) Date: Areas: Affiliated Transactions Great Plains Energy Incorporated Westar Energy, Inc. Case No. EM-2016-0324 July 25, 2016 (Investigation Report) Date: Areas: Affiliated Transactions Kansas City Power & Light Company Case No. ER-2016-0285 Date: January 27, 2017 (Surrebuttal) Affiliate Transactions Areas: The Empire District Electric Company, Liberty Utilities (Central) Co. and Liberty Sub Corp. Case No. EM-2016-0213 July 20, 2016 (Rebuttal) Date: **Affiliated Transactions** Areas: Laclede Gas Company Case No. GF-2015-0181 Date: June 18, 2015 (Affidavit) Areas: **Finance Authority** The Empire District Electric Company Case No. AO-2012-0062 Date: September 9, 2016 (Direct)

Areas: Affiliated Transactions; Cost Allocation Manual

KCP&L Greater Missouri Operations CompanyCase No. ER-2010-0356Date: November 4, 2010 (Report)Areas: Construction Audit and Prudence Review

Kansas City Power & Light Company Case No. ER-2010-0355 Date: November 4, 2010 (Report) Areas: Construction Audit and Prudence Review Great Plains Energy Incorporated,

Veneral City Derver & Light Common

Kansas City Power & Light Company

Case No. ER-2009-0090

Date: April 9, 2009 (Surrebuttal)

Areas: Iatan Prudence Review

Great Plains Energy Incorporated,

Kansas City Power & Light Company

Case No. ER-2009-0089

Date: April 7, 2009 (Surrebuttal)

Areas: Iatan Prudence Review

Great Plains Energy Incorporated,

Kansas City Power & Light Company, Aquila, Inc.

Case No. EM-2007-0374

Date: October 12, 2007 (Rebuttal and Staff Report of Evaluation and Recommendations) Areas: GPE Acquisition of Aquila

Union Electric Company, d/b/a AmerenUE

Case No. ER-2007-0002

Date: February 28, 2007 (Surrebuttal)

Areas: EEInc.

Date: January 31, 2007 (Rebuttal)

Areas: EEInc. and 4 CSR 240-10.020

Missouri Pipeline Company

Case No. GC-2006-0491

 Date: September 6, 2006 (Direct) November 17, 2006 (Surrebuttal)
 Areas: Affiliate Transactions, Tariff Violations and Associated Penalties; Transportation Tariffs

Aquila, Inc.

Case No. ER-2005-0436 Date: October, 14 2005 (Direct) December 13, 2005 (Surrebuttal) Areas: Unit Ownership Costs

Union Electric Company, d/b/a AmerenUE Case No. EA-2005-0180 October 15, 2005 (Rebuttal) Date: East Transfer Areas: Union Electric Company d/b/a AmerenUE Case No. EC-2002-1 June 24, 2002 (Surrebuttal) Date: Area: Overview, 4 CSR 240-10.020, Alternative Regulation Plan Laclede Gas Company Case No. GR-94-220 July 1, 1994 (Direct) Date: Areas: Property Taxes, Manufactured Gas Accruals, Deregulated Cost Assignments Western Resources, Inc., dba Gas Service, a Western Resources Company Case No. GM-94-40 Date: November 29, 1993 (Rebuttal) Jurisdictional Consequences of the Sale of Missouri Gas Properties Areas: Kansas Power & Light Company Case No. EM-91-213 Date: April 15, 1991 (Rebuttal) Purchase of Kansas Gas & Electric Company Areas: Arkansas Power & Light Company and Union Electric Company Case No. EM-91-29 1990-1991 Date: Areas: No pre-filed rebuttal testimony by Staff before non-unanimous stipulation and agreement reached. General Telephone Company of the Midwest Case No. TM-87-19 December 17, 1986 Date: Areas: Merger Union Electric Company Case No. EC-87-114 September 9, 1987 (Surrebuttal) Date: April 24, 1987 (Direct) Date: Elimination of Further Company Phase-In Increases, Write-Off of Callaway I to Areas:

Company's Capital Structure

General Telephone Company of the Midwest
Case No. TC-87-57
Date: December 22, 1986
Areas: Background and Overview, GTE Service Corporation, Merger Adjustment, Adjustments to Income Statement

Southwestern Bell Telephone Company

Case No. TR-86-84

Date: 1986

No prefiled direct testimony by Staff - case settled before Staff direct testimony filed.

Kansas City Power & Light Company

Case Nos. EO-85-185 and ER-85-128

Date: April 11, 1985

Areas: Phase I - Electric Jurisdictional Allocations

Date: June 21, 1985

Areas: Phase III - Deferred Taxes Offset to Rate Base

Date: July 3, 1985

Areas: Phase IV - 47% vs. 41.5% Ownership, Interest, Phase-In, Test Year/True-Up, Decision to Build Wolf Creek, Non-Wolf Creek Depreciation Rates, Depreciation Reserve

Southwestern Bell Telephone Company

Case No. TR-83-253

- Date: September 23, 1983
- Areas: Cost of Divestiture Relating to AT&T Communications, Test Year, True-Up, Management Efficiency and Economy
- Kansas City Power & Light Company

Case No. ER-83-49

Date: February 11, 1983

Areas: Test Year, Fuel Inventories, Other O&M Expense Adjustment, Attrition Adjustment, Fuel Expense-Forecasted Fuel Prices, Deferred Taxes Offset to Rate Base

Kansas City Power & Light Company

Case Nos. ER-82-66 and HR-82-67

Date: March 26, 1982

Areas: Indexing/Attrition, Normalization vs. Flow-Through, Deferred Taxes as an Offset to Rate Base, Annualization of Amortization of Deferred Income Taxes, Cost of Money/Rate of Return, Allocations, Fuel Inventories, Iatan AFDC Associated with AEC Sale, Forecasted Coal and Natural Gas Prices, Allowance for Known and Measurable Changes

Southwestern Bell Telephone Company

Case No. TR-82-199

Date: August 27, 1982

Areas: License Contract, Capitalized Property Taxes, Normalization vs. Flow-Through, Interest Expense, Separations, Consent Decree, Capital Structure Relationship

Generic Telecommunications

Straight Line Equal Life Group and Remaining Life Depreciation Methods

Case No. TO-82-3

Date: December 23, 1981

Areas: Depreciation

Southwestern Bell Telephone Company

Case No. TR-81-208

Date: August 6, 1981

Areas: License Contract, Flow-Through vs. Normalization

Kansas City Power & Light Company

Case No. ER-81-42

Date: March 13, 1981

Areas: Iatan (AEC Sale), Normalization vs. Flow-Through, Allocations, Allowance for Known and Measurable Changes

Southwestern Bell Telephone Company

Case No. TR-80-256

Date: October 23, 1980

Areas: Flow-Through vs. Normalization

United Telephone Company of Missouri

Case No. TR-80-235

Date: December 1980

Areas: Rate of Return

Kansas City Power & Light Company

Case Nos. ER-80-48 and ER-80-204

- Date: March 11, 1980
- Areas: Iatan Station Excess Capacity, Interest Synchronization, Allocations

Southwestern Bell Telephone Company Case No. TR-79-213 Date: October 19, 1979

Areas: Income Taxes, Deferred Taxes

Gas Service Company Case No. GR-79-114 Date: June 15, 1979 Areas: Deferred Taxes as an Offset to Rate Base

Missouri Public Service Company

Case Nos. ER-79-60 and GR-79-61

Date: April 9, 1979

Areas: Depreciation Reserve, Cash Working Capital

Missouri Public Service Company

Case Nos. ER-78-29 and GR-78-30

Date: August 10, 1978

Areas: Fuel Expense, Electric Materials and Supplies, Electric and Gas Prepayments, Electric and Gas Cash Working Capital, Electric Revenues

While in the employ of the Kansas State Corporation Commission in 1978, Mr. Schallenberg worked on a Gas Service Company rate case and rate cases of various electric cooperatives.

Project #	Ove	erhead Cost	Total Cost	Overhead % Total Cost
800028	\$	72,990	\$ 180,657	40.40%
800039	\$	1,137,365	\$ 1,862,832	61.06%
800041	\$	79,884	\$ 210,841	37.89%
800044	\$	125,537	\$ 303,350	41.38%
800045	\$	272,138	\$ 718,266	37.89%
800046	\$	105,292	\$ 259,354	40.60%
800069	\$	158,016	\$ 417,057	37.89%
800070	\$	77,694	\$ 205,070	37.89%
800072	\$	414,064	\$ 921,825	44.92%
800073	\$	511,243	\$ 1,303,261	39.23%
800075	\$	261,780	\$ 688,017	38.05%
800076	\$	318,131	\$ 587,197	54.18%
800083	\$	229,708	\$ 600,471	38.25%
800091	\$	185,403	\$ 303,030	61.18%
800092	\$	172,181	\$ 410,767	41.92%
800093	\$	196,935	\$ 448,424	43.92%
800094	\$	151,775	\$ 362,176	41.91%
800097	\$	48,355	\$ 109,936	43.98%
800100	\$	192,923	\$ 462,540	41.71%
800112	\$	146,592	\$ 287,671	50.96%
800121	\$	58,221	\$ 150,830	38.60%
800122	\$	163,257	\$ 427,994	38.14%
800123	\$	111,264	\$ 289,563	38.42%
800124	\$	93,843	\$ 247,683	37.89%
800125	\$	56,638	\$ 149,488	37.89%
800126	\$	133,041	\$ 310,613	42.83%
800127	\$	315,274	\$ 760,880	41.44%
800128	\$	58,384	\$ 137,393	42.49%
800130	\$	235,755	\$ 549,605	42.90%
800131	\$	303,967	\$ 758,387	40.08%
800132	\$	140,981	\$ 344,395	40.94%
800133	\$	175,233	\$ 430,030	40.75%
800136	\$	184,873	\$ 267,262	69.17%
800137	\$	419,037	\$ 667,681	62.76%
800138	\$	41,276	\$ 108,941	37.89%
800142	\$	317,060	\$ 596,666	53.14%
800143	\$	120,949	\$ 319,225	37.89%
800144	\$	72,664	\$ 190,213	38.20%
800145	\$	154,632	\$ 408,128	37.89%
800146	\$	198,047	\$ 522,714	37.89%
800147	\$	383,264	\$ 980,486	39.09%
800148	\$	140,105	\$ 370,948	37.77%
800149	\$	200,569	\$ 494,948	40.52%
800150	\$	131,031	\$ 343,934	38.10%
800151	\$	286,906	\$ 751,183	38.19%
800152	\$	308,370	\$ 777,148	39.68%

800153	\$ 165,381	\$ 416,010	39.75%
800154	\$ 286,939	\$ 757,332	37.89%
800155	\$ 272,643	\$ 697,715	39.08%
800156	\$ 256,718	\$ 663,978	38.66%
800157	\$	\$	38.52%
	246,950	641,078	
800158	\$ 362,434	\$ 940,728	38.53%
800159	\$ 324,603	\$ 718,894	45.15%
800163	\$ 321,281	\$ 845,371	38.00%
800224	\$ 786,979	\$ 2,074,286	37.94%
800227	\$ 50,665	\$ 133,721	37.89%
800230	\$ 446,450	\$ 712,071	62.70%
800256	\$ 469,828	\$ 883,897	53.15%
800257	\$ 295,453	\$ 647,249	45.65%
800258	\$, 375,642	\$ 923,938	40.66%
800259	\$ 277,497	\$ 732,438	37.89%
800260	\$ 134,586	\$ 355,219	37.89%
800261	\$ 76,493	\$ 194,530	39.32%
800262	\$ 134,916	\$ 330,018	40.88%
800263	\$ 116,588	\$ 275,803	42.27%
800264	\$ 261,575	\$ 656,606	39.84%
800265	\$ 146,828	\$ 355,725	41.28%
800274	\$ 381,241	\$ 735,116	51.86%
800275	\$ 158,783	\$ 419,082	37.89%
800276	\$ 138,434	\$ 365,376	37.89%
800277	\$ 354,773	\$ 936,367	37.89%
800278	\$ 182,896	\$ 438,917	41.67%
800279	\$ 369,101	\$ 920,889	40.08%
800275	\$ 	\$ 	
	222,972	543,655	41.01%
800281	\$ 155,674	\$ 371,553	41.90%
800282	\$ 226,220	\$ 538,264	42.03%
800283	\$ 729,346	\$ 1,744,062	41.82%
800284	\$ 283,447	\$ 748,114	37.89%
800285	\$ 157,106	\$ 414,001	37.95%
800286	\$ 421,926	\$ 1,113,607	37.89%
800290	\$ 177,774	\$ 426,071	41.72%
800301	\$ 516,729	\$ 1,363,939	37.89%
800335	\$ 1,111,630	\$ 1,570,267	70.79%
800336	\$ 157,902	\$ 390,465	40.44%
800338	\$ 663,443	\$ 1,181,182	56.17%
	\$	\$	
800340	1,046,778	1,650,911	63.41%
800341	\$ 388,118	\$ 652,329	59.50%
800342	\$ 130,905	\$ 356,031	36.77%
800343	\$ 489,900	\$ 697,235	70.26%
800344	\$ 162,986	\$ 229,623	70.98%
800385	\$ 630,102	\$ 1,038,302	60.69%
800390	\$ 38,771	\$ 102,330	37.89%
800393	\$ 362,702	\$ 546,851	66.33%

800396	\$	228,792	\$	603,862	37.89%
800405	\$	43,113	\$	100,308	42.98%
800406	\$	15,326	\$	40,460	37.88%
800412	, \$	235,090	, \$	594,411	39.55%
800413	\$	363,577	\$	828,830	43.87%
				-	
800414	\$	136,359	\$	335,554	40.64%
800431	\$	170,925	\$	410,382	41.65%
800432	\$	477,115	\$	1,188,850	40.13%
800435	\$	340,345	\$	825,322	41.24%
800439	\$	603,610	\$	1,374,185	43.92%
800440	\$	890,025	\$	1,406,231	63.29%
800441	\$	866,025	\$	1,244,783	69.57%
800444	\$	170,406	\$	440,379	38.70%
800449	\$, 39,222	\$	57,679	68.00%
800453	\$	1,725,852	\$	2,508,484	68.80%
800463	\$	134,605	\$	317,878	42.34%
800474	\$	109,366	\$	288,656	37.89%
800475	\$	167,206	\$	441,314	37.89%
800480	\$	265,930	\$	664,400	40.03%
800489	\$	209,966	\$	506,448	41.46%
800491	\$	664,171	\$	997,598	66.58%
800493	\$	10,221	\$	14,632	69.85%
800496	\$	849,952	\$	1,550,097	54.83%
800497	\$	590,408	\$	1,330,500	44.37%
800498	\$	441,727	\$	942,335	46.88%
800499	\$	518,886	\$	912,346	56.87%
800500	\$	586,480	\$	1,028,301	57.03%
800501	\$		\$		43.89%
		398,540		908,141	
800502	\$	572,492	\$	1,072,640	53.37%
800542	\$	442,380	\$	1,089,431	40.61%
800551	\$	186,357	\$	408,261	45.65%
800558	\$	429,987	\$	682,253	63.02%
800566	\$	63,628	\$	157,343	40.44%
800578	\$	166,397	\$	435,508	38.21%
800584	\$	331,516	\$	879,985	37.67%
800597	\$	202,872	\$	500,995	40.49%
800598	\$	269,243	\$	654,637	41.13%
800599	\$	152,709	\$	385,708	39.59%
800600	\$	180,507	\$	450,002	40.11%
800601	\$	95,513	\$	252,941	37.76%
800604	\$	38,335	\$	98,774	38.81%
800606	\$	56,124	\$	150,911	37.19%
800610	\$	174,756	\$	397,949	43.91%
800613	\$	111,705	\$	167,923	66.52%
800616	\$	183,416	\$	460,356	39.84%
800622	\$	97,931	\$	255,444	38.34%
800623	\$	58,147	\$	144,855	40.14%

800626	\$	413,407	\$	1,064,190	38.85%
800636	\$	89,898	\$	237,272	37.89%
800639	\$	361,064	\$	907,345	39.79%
800640	\$	315,092	\$	767,152	41.07%
800647	\$	209,592	\$	687,230	30.50%
800654	\$	-	\$	-	37.85%
		260,314		687,735	
800655	\$	198,515	\$	509,398	38.97%
800658	\$	72,513	\$	157,171	46.14%
800659	\$	323,291	\$	825,457	39.17%
800660	\$	147,919	\$	362,706	40.78%
800661	\$	115,002	\$	276,818	41.54%
800668	\$	144,278	\$	366,947	39.32%
800671	\$	296,892	\$	783,601	37.89%
800672	\$	110,107	\$	290,611	37.89%
800690	\$	205,705	\$	446,897	46.03%
800711	\$	87,478	\$	122,959	71.14%
800718	\$	55,174	\$	79,084	69.77%
800720	\$	160,159	\$	369,170	43.38%
800721	\$		\$	455,410	41.48%
		188,886		-	
800722	\$	105,216	\$	273,458	38.48%
800726	\$	40,101	\$	104,212	38.48%
800727	\$	113,481	\$	299,516	37.89%
800756	\$	44,897	\$	106,859	42.02%
800758	\$	76,318	\$	202,430	37.70%
800759	\$	364,660	\$	759,226	48.03%
800760	\$	394,108	\$	922,034	42.74%
800761	\$	197,225	\$	517,910	38.08%
800762	\$	201,888	\$	532,851	37.89%
800763	\$	412,221	\$	1,073,190	38.41%
800794	\$	487,600	\$	1,645,636	29.63%
800795	\$	416,464	\$	1,107,786	37.59%
800796	\$	613,107	\$	1,620,970	37.82%
800797	\$	317,379	\$	837,672	37.89%
800798	\$	306,800	\$	809,752	37.89%
800799	\$	247,749	\$	653,896	37.89%
800800	\$	508,411	\$	1,341,871	37.89%
800801	\$	400,527	\$	1,070,732	37.41%
800802	\$	246,793	\$	833,603	29.61%
800818	\$	17,108	\$	45,154	37.89%
800824	\$	27,512	\$	72,614	37.89%
800825	\$	27,966	\$	74,202	37.69%
800826	\$	29,795	\$	99,901	29.82%
800827	\$	111,613	\$	172,903	64.55%
800830	\$	57,848	\$	102,762	56.29%
800834	\$	56,913	\$	150,214	37.89%
800834	\$	28,597	\$	75,477	37.89%
	ې \$		ې \$		
800855	Ş	180,423	Ş	476,199	37.89%

800856	\$ 76,938	\$	203,065	37.89%
800864	\$ 165,957	\$	356,770	46.52%
800867	\$ 237,791	\$	628,888	37.81%
800912	\$ 117,104	\$	300,000	39.03%
800921	\$ 102,377	\$	198,973	51.45%
800924	\$ 21,402	\$	53,461	40.03%
800932	\$ 40,860	\$	60,950	67.04%
800940	\$ 119,349	\$	189,161	63.09%
800971	\$ 59,927	\$	149,582	40.06%
800977	\$ 345,742	\$	873,732	39.57%
801040	\$ 522,264	\$	1,715,868	30.44%
801041	\$ 824,959	\$	2,099,069	39.30%
801042	\$ 386,779	\$	1,022,161	37.84%
801057	\$ 295,979	\$	781,191	37.89%
801057	\$ 52,526	\$		36.25%
			144,879	
801089	\$ 330,610	\$	688,212	48.04%
801096	\$ 293,735	\$	740,666	39.66%
801101	\$ 271,660	\$	722,285	37.61%
801102	\$ 355,609	\$	931,922	38.16%
801103	\$ 326,855	\$	868,802	37.62%
801106	\$ 165,199	\$	424,028	38.96%
801107	\$ 455,664	\$	1,195,290	38.12%
801119	\$ 132,460	\$	201,721	65.67%
801125	\$ 94,192	\$	224,278	42.00%
801142	\$ 163,276	\$	369,483	44.19%
801148	\$ 188,974	\$	475,972	39.70%
801148	\$ -	\$		
	175,588		430,389	40.80%
801156	\$ 35,016	\$	94,020	37.24%
801167	\$ 22,917	\$	60,487	37.89%
801179	\$ 553,942	\$	1,410,019	39.29%
801193	\$ 299,544	\$	728,465	41.12%
801206	\$ 258,181	\$	644,413	40.06%
801214	\$ 646,612	\$	1,649,649	39.20%
801219	\$ 266,226	\$	416,652	63.90%
801220	\$ 1,229,890	\$	1,867,259	65.87%
801223	\$ 54,664	\$	79,736	68.56%
801224	\$ 51,284	, \$	132,155	38.81%
801238	\$ 61,434	\$	162,146	37.89%
801238	\$ -	\$	•	65.56%
	221,346		337,630	
801243	\$ 170,508	\$	444,615	38.35%
801250	\$ 154,321	\$	387,613	39.81%
801251	\$ 457,735	\$	1,213,194	37.73%
801253	\$ 43,038	\$	67,557	63.71%
801269	\$ 35,709	\$	85,169	41.93%
801284	\$ 290,111	\$	479,871	60.46%
801295	\$ 18,787	\$	48,537	38.71%
801297	\$ 30,656	\$	77,128	39.75%
	•	•	•	

801299	\$ 253,672	\$	423,159	59.95%
801300	\$ 200,174	\$	329,063	60.83%
801302	\$ 382,309	\$	1,004,427	38.06%
801304	\$ 182,631	\$	489,149	37.34%
801305	\$ 246,692	\$	646,305	38.17%
	-			
801306	\$ 326,233	\$	855,105	38.15%
801307	\$ 250,061	\$	656,155	38.11%
801308	\$ 224,054	\$	587,669	38.13%
801309	\$ 189,715	\$	491,706	38.58%
801315	\$ 23,759	\$	63,208	37.59%
801323	\$ 356,717	\$	903,437	39.48%
801356	\$ 131,943	\$	332,063	39.73%
801360	\$ 28,117	\$	74,211	37.89%
801365	\$, 91,051	\$	224,403	40.57%
801376	\$ 151,496	\$	379,839	39.88%
801377	\$ -	\$		39.65%
	203,879		514,244	
801378	\$ 180,761	\$	457,652	39.50%
801410	\$ 14,231	\$	37,559	37.89%
801428	\$ 75,322	\$	191,468	39.34%
801439	\$ 60,067	\$	207,381	28.96%
801450	\$ 19,834	\$	42,314	46.87%
801472	\$ 472,114	\$	1,242,931	37.98%
801475	\$ 191,759	\$	485,050	39.53%
801520	\$ 301,146	\$	599,021	50.27%
801527	\$, 164,944	\$	303,800	54.29%
801528	\$ 98,398	\$	224,593	43.81%
801546	\$ 132,924	\$	335,816	39.58%
	\$	ې \$		
801547	146,165		353,022	41.40%
801548	\$ 114,526	\$	296,106	38.68%
801549	\$ 373,942	\$	967,872	38.64%
801550	\$ 290,408	\$	749,400	38.75%
801625	\$ 30,522	\$	78,229	39.02%
801626	\$ 68,730	\$	173,772	39.55%
801627	\$ 73,758	\$	175,476	42.03%
801628	\$ 30,012	\$	51,770	57.97%
801647	\$ 135,105	\$	356,598	37.89%
801648	\$ 192,348	\$	507,672	37.89%
801649	\$ 209,590	\$	538,709	38.91%
801650	\$ 73,642	\$	194,366	37.89%
801651	\$ 75,803	\$	200,070	37.89%
801652	\$ 181,886	\$	486,578	37.38%
801703	\$ 63,465	\$	105,465	60.18%
801709	\$ 53,023	\$	131,449	40.34%
801710	\$ 38,253	\$	99,682	38.37%
801712	\$ 114,630	\$	293,236	39.09%
801731	\$ 86,548	\$	160,023	54.08%
801770	\$ 86,548	\$	160,023	54.08%
	-		-	

801789	\$ 78,224	\$	177,015	44.19%
801799	\$ 198,636	\$	514,141	38.63%
801801	\$ 183,473	\$	484,248	37.89%
801806	\$ 288,656	\$	713,777	40.44%
801815	\$ 54,759	\$	134,703	40.65%
801813	\$ 31,851	\$	61,946	51.42%
	\$	ې \$		
801828	72,832		189,234	38.49%
801834	\$ 38,951	\$	95,542	40.77%
801835	\$ 494,264	\$	1,286,142	38.43%
801837	\$ 286,928	\$	764,796	37.52%
801843	\$ 609,204	\$	1,540,704	39.54%
801844	\$ 18,227	\$	49,894	36.53%
801862	\$ 645,034	\$	1,642,783	39.26%
801866	\$ 249,367	\$	652,119	38.24%
801868	\$ 47,956	\$	123,953	38.69%
801873	\$ 109,326	\$	174,951	62.49%
801874	\$ 94,773	\$	134,011	70.72%
801875	\$ 118,409	\$	172,662	68.58%
801886	\$ 85,192	\$	270,592	31.48%
801909	\$ 290,872	\$	471,793	61.65%
801950	\$ 480,307	\$	1,256,906	38.21%
801952	\$ 75,752	\$	198,248	38.21%
801952	\$ 188,268	\$	431,288	43.65%
801939	\$ -	\$		43.05%
	284,873		704,968	
801980	\$ 413,618	\$	1,087,813	38.02%
801982	\$ 260,553	\$	670,462	38.86%
802002	\$ 38,223	\$	95,530	40.01%
802003	\$ 111,517	\$	295,653	37.72%
802032	\$ 41,466	\$	82,932	50.00%
802039	\$ 325,093	\$	844,928	38.48%
802042	\$ 193,995	\$	501,776	38.66%
802043	\$ 188,467	\$	494,587	38.11%
802130	\$ 104,440	\$	155,420	67.20%
802144	\$ 96,771	\$	158,521	61.05%
802198	\$ 95,454	\$	251,937	37.89%
802248	\$ 64,076	\$	166,560	38.47%
802275	\$ 116,838	\$	305,850	38.20%
802301	\$ 182,743	\$	448,799	40.72%
802330	\$ 21,052	\$	29,614	71.09%
802354	\$ 18,598	\$	26,369	70.53%
900613	\$ 402,985	\$	725,467	55.55%
	\$	\$		
900950	8,982 276 272		16,382	54.83%
900992	\$ 276,373	\$ ¢	505,371	54.69%
900995	\$ 257,704	\$	468,202	55.04%
900997	\$ 270,236	\$	487,422	55.44%
901042	\$ 278,329	\$	512,345	54.32%
901043	\$ 565,575	\$	1,024,301	55.22%

901045	\$ 397,574	\$ 716,509	55.49%
901046	\$ 190,805	\$ 346,393	55.08%
901049	\$ 246,137	\$ 437,942	56.20%
901050	\$ 247,342	\$ 451,033	54.84%
901051	\$ 436,023	\$ 798,701	54.59%
901126	\$ 323,160	\$ 583,869	55.35%
901128	\$ 276,301	\$ 497,713	55.51%
901132	\$ 296,656	\$ 538,105	55.13%
901274	\$ 352,219	\$ 639,003	55.12%
901275	\$ 227,123	\$ 422,278	53.79%
901276	\$ 426,008	\$ 788,201	54.05%
901296	\$ 202,884	\$ 378,865	53.55%
901309	\$ 549,127	\$ 956,273	57.42%
901310	\$ 510,436	\$ 932,904	54.71%
901312	\$ 218,505	\$ 396,003	55.18%
901315	\$ 221,877	\$ 402,692	55.10%
	\$	\$	
901362	150,582	274,713	54.81%
901388	\$ 335,448	\$ 614,463	54.59%
901389	\$ 190,097	\$ 346,943	54.79%
901399	\$ 341,855	\$ 618,919	55.23%
901400	\$ 343,211	\$ 624,122	54.99%
901405	\$ 144,444	\$ 267,352	54.03%
901406	\$ 336,741	\$ 620,455	54.27%
901408	\$ 375,248	\$ 686,203	54.68%
901409	\$ 150,442	\$ 283,435	53.08%
901410	\$ 285,591	\$ 526,818	54.21%
901432	\$ 977,027	\$ 1,623,261	60.19%
901454	\$ 145,536	\$ 	56.31%
		258,441	
901457	\$ 363,231	\$ 683,043	53.18%
901475	\$ 338,273	\$ 616,897	54.83%
901494	\$ 260,774	\$ 472,882	55.15%
901534	\$ 284,451	\$ 486,013	58.53%
901547	\$ 212,983	\$ 388,197	54.86%
901548	\$ 184,146	\$ 334,716	55.02%
901678	\$ 258,805	\$ 469,111	55.17%
901679	\$ 250,862	\$ 452,675	55.42%
901746	\$ 170,677	\$ 309,752	55.10%
901747	\$ 55,564	\$ 102,266	54.33%
901748	\$ 219,423	\$ 391,610	56.03%
901749	\$ 283,832	\$ 514,362	55.18%
	-		
901755	\$ 91,549	\$ 163,787	55.90%
901773	\$ 165,066	\$ 300,740	54.89%
901774	\$ 367,413	\$ 639,096	57.49%
901780	\$ 206,946	\$ 378,674	54.65%
901792	\$ 210,199	\$ 399,854	52.57%
901867	\$ 238,097	\$ 443,371	53.70%
901901	\$ 94,253	\$ 171,690	54.90%

901906	\$	30,218	\$	53 <i>,</i> 984	55.98%	
901908	\$	70,845	\$	126,920	55.82%	
901914	\$	103,894	\$	184,935	56.18%	
901967	\$	97,175	\$	175,066	55.51%	
901972	\$	44,297	\$	81,706	54.22%	
901988	\$	82,488	\$	150,340	54.87%	
902030	\$	449,942	\$	818,041	55.00%	
902090	\$	304,337	\$	551,263	55.21%	
902108	\$	364,133	\$	654,850	55.61%	
	0	verhead Cost	Total Cost		Overhead % Total Cost	Average%
Total	\$	92,668,113	\$ 204,107,158		45.40%	45.61%

Project #	Over	head Cost	٦	Total Cost	Overhead % Total Cost
900069	\$	321,975	\$	572,944	56.20%
900613	\$	402,985	\$	725,467	55.55%
900943	\$	61,018	\$	104,340	58.48%
900947	\$	11,299	\$	19,756	57.19%
900950	\$	8,982	\$	16,382	54.83%
900958	\$	8,983	\$	16,147	55.63%
900974	\$	295,229	\$	536,290	55.05%
900992	\$	276,373	\$	505,371	54.69%
900994	\$	163,252	\$	298,510	54.69%
900995	\$	257,704	\$	468,202	55.04%
900995	\$	221,515	\$	408,202 368,879	60.05%
	\$ \$				
900997		270,236	\$	487,422	55.44%
901042	\$	278,329	\$	512,345	54.32%
901043	\$	565,575	\$	1,024,301	55.22%
901045	\$	397,574	\$	716,509	55.49%
901046	\$	190,805	\$	346,393	55.08%
901047	\$	340,008	\$	614,948	55.29%
901048	\$	441,316	\$	788,580	55.96%
901049	\$	246,137	\$	437,942	56.20%
901050	\$	247,342	\$	451,033	54.84%
901051	\$	436,023	\$	798,701	54.59%
901052	\$	96,345	\$	165,788	58.11%
901092	\$	722,897	\$	1,279,572	56.50%
901093	\$	460,749	\$	832,907	55.32%
901094	\$	333,762	\$	606,857	55.00%
901095	\$	236,176	\$	426,432	55.38%
901101	\$	535,602	\$	930,169	57.58%
901124	\$	240,708	\$	419,990	57.31%
901126	\$	323,160	\$	583,869	55.35%
901127	\$	207,734		378,757	54.85%
901129	\$	325,477	\$	578,297	56.28%
901130	\$, 151,112	\$	271,246	55.71%
901132	\$	616,171	, \$	1,108,943	55.56%
901133	\$	371,192	\$	666,671	55.68%
901134	\$	248,148	\$	446,760	55.54%
901135	\$	222,526	\$	399,835	55.65%
901165	\$	17,438	\$	31,508	55.34%
901188	\$	144,875	\$	265,670	54.53%
901190	\$	194,105	\$	369,928	52.47%
901207	\$	119,815	\$	201,925	59.34%
901207	\$ \$	331,498	\$	597,445	55.49%
		-			
901274	\$	352,219	\$ ¢	639,003	55.12%
901275	\$ ¢	227,123	\$ ¢	422,278	53.79%
901276	\$	426,008	\$	788,201	54.05%
901277	\$	558,908	\$	1,022,650	54.65%
901281	\$	203,208	\$	348,184	58.36%

901282	\$ 514,114	\$	944,983	54.40%
901283	\$ 326,615	\$	597,604	54.65%
901296	\$ 202,884	\$	378,865	53.55%
901299	\$ 230,532	\$	426,307	54.08%
901300	\$ 284,551	\$	520,904	54.63%
	\$	\$		
901302	229,863		413,408	55.60%
901309	\$ 549,127	\$	956,273	57.42%
901310	\$ 510,436	\$	932,904	54.71%
901312	\$ 218,505	\$	396,003	55.18%
901314	\$ 241,709	\$	442,128	54.67%
901315	\$ 221,877	\$	402,692	55.10%
901317	\$ 151,749	\$	272,801	55.63%
901362	\$ 150,582	\$	274,713	54.81%
901363	\$ 209,677	\$	379,291	55.28%
901373	\$ 248,573	\$	456,774	54.42%
901386	\$ 448,028	\$	808,941	55.38%
901388	\$ 335,448	\$	614,463	54.59%
	\$ 190,097	\$	346,943	
901389	-		•	54.79%
901395	\$ 305,102	\$	511,860	59.61%
901399	\$ 341,855	\$	618,919	55.23%
901400	\$ 343,211	\$	624,122	54.99%
901401	\$ 412,889	\$	689,266	59.90%
901403	\$ 140,068	\$	257,339	54.43%
901404	\$ 323,727	\$	538,900	60.07%
901405	\$ 144,444	\$	267,352	54.03%
901406	\$ 336,741	\$	620,455	54.27%
901407	\$ 326,681	\$	550,807	59.31%
901408	\$ 375,248	\$	686,203	54.68%
901409	\$ 150,442	\$	283,435	53.08%
901410	\$ 285,591	\$	526,818	54.21%
	\$		-	56.03%
901411	276,637	\$	493,694	
901412	\$ 224,436	\$	417,421	53.77%
901432	\$ 977,027	\$	1,623,261	60.19%
901434	\$ 30,090	\$	55,890	53.84%
901440	\$ 46,336	\$	84,725	54.69%
901450	\$ 52,212	\$	96,910	53.88%
901454	\$ 145,536	\$	258,441	56.31%
901456	\$ 72,952	\$	131,044	55.67%
901457	\$ 363,231	\$	683,043	53.18%
901466	\$ 244,242	\$	414,751	58.89%
901467	\$ 234,661	\$	393,500	59.63%
901468	\$ 202,408	\$	366,153	55.28%
901469	\$ 136,669	\$	247,330	55.26%
901472	\$ 163,544	\$ ¢	295,888	55.27%
901475	\$ 338,273	\$	616,897	54.83%
901494	\$ 260,774	\$	472,882	55.15%
901516	\$ 286,982	\$	516,266	55.59%

901518	\$ 136,250	\$	248,539	54.82%
901520	\$ 58,516	\$	104,457	56.02%
901522	\$ 205,227	\$	370,988	55.32%
901523	\$ 88,801	\$	159,159	55.79%
901529	\$ 150,729	\$	274,526	54.91%
			-	
901534	\$ 284,451	\$	486,013	58.53%
901547	\$ 212,983	\$	388,197	54.86%
901548	\$ 184,146	\$	334,716	55.02%
901563	\$ 221,178	\$	399,788	55.32%
901564	\$ 151,434	\$	272,271	55.62%
901576	\$ 233,141	\$	394,964	59.03%
901592	\$ 410,739	\$	765,477	53.66%
901596	\$ 208,048	\$	349,408	59.54%
901602	\$ 204,189	\$	370,791	55.07%
901603	\$ 488,334	\$	883,948	55.24%
901606	\$ 275,843	\$	483,773	57.02%
	\$	\$		
901609	136,677		245,991	55.56%
901610	\$ 264,706	\$	484,339	54.65%
901611	\$ 357,546	\$	651,210	54.90%
901612	\$ 286,987	\$	525,288	54.63%
901613	\$ 222,580	\$	402,633	55.28%
901614	\$ 245,374	\$	446,105	55.00%
901621	\$ 188,010	\$	340,405	55.23%
901622	\$ 267,363	\$	480,719	55.62%
901623	\$ 241,789	\$	435,083	55.57%
901624	\$ 148,206	\$	258,816	57.26%
901630	\$ 226,462	\$	396,385	57.13%
901666	\$ 18,047	\$	32,036	56.33%
901673	\$ 276,893	\$		55.38%
		ې \$	499,968	
901677	\$ 197,167		348,929	56.51%
901678	\$ 258,805	\$	469,111	55.17%
901679	\$ 250,862	\$	452,675	55.42%
901680	\$ 138,647	\$	247,755	55.96%
901681	\$ 237,764	\$	428,904	55.44%
901713	\$ 50,875	\$	88,644	57.39%
901725	\$ 209,068	\$	376,082	55.59%
901729	\$ 178,219	\$	329,638	54.07%
901742	\$ 16,730	\$	31,379	53.32%
901743	\$ 96,655	\$	173,480	55.72%
901744	\$ 91,581	\$	167,737	54.60%
901745	\$ 105,515	\$	188,221	56.06%
901746	\$ 170,677	\$	309,752	55.10%
901747	\$ 55,564	\$	102,266	54.33%
901748	\$ 219,423	\$	391,610	56.03%
901749	\$ 283,832	\$	514,362	55.18%
901750	\$ 46,345	\$	82,673	56.06%
901751	\$ 209,561	\$	373,616	56.09%

901753	\$	15,006	\$	28,091	53.42%
901755	\$	91,549	\$	163,787	55.90%
901756	\$	109,304	\$	194,857	56.09%
901758	\$	72,701	\$	126,713	57.37%
901759	\$, 82,535	\$	147,004	56.14%
901760	\$	174,369	\$	310,923	56.08%
901773	\$	165,066	\$	300,740	54.89%
				-	
901774	\$	367,413	\$	639,096	57.49%
901775	\$	174,653	\$	357,808	48.81%
901780	\$	206,946	\$	378,674	54.65%
901785	\$	10,515	\$	17,571	59.84%
901792	\$	210,199	\$	399,854	52.57%
901794	\$	270,045	\$	491,886	54.90%
901797	\$	114,948	\$	190,495	60.34%
901802	\$	390,131	\$	693,516	56.25%
901804	\$	438,604	\$	726,327	60.39%
901867	\$	238,097	\$	443,371	53.70%
901868	\$	382,162	\$	698,439	54.72%
901869	\$	396,478	\$	724,997	54.69%
901900	\$	30,709	\$	57,236	53.65%
	\$		\$		
901901		94,253		171,690	54.90%
901902	\$	23,023	\$	40,866	56.34%
901903	\$	104,945	\$	187,744	55.90%
901905	\$	190,295	\$	341,789	55.68%
901906	\$	30,218	\$	53,984	55.98%
901907	\$	130,637	\$	218,871	59.69%
901908	\$	70,845	\$	126,920	55.82%
901912	\$	45,684	\$	81,644	55.96%
901913	\$	72,049	\$	129,815	55.50%
901914	\$	103,894	\$	184,935	56.18%
901915	\$	86,558	\$	153,455	56.41%
901916	\$	44,031	\$	78,167	56.33%
901959	\$	216,598	\$	364,321	59.45%
901962	\$	123,268	\$	221,017	55.77%
901964	\$	18,671	\$	31,823	58.67%
901967	\$	97,175	\$	175,066	55.51%
901972	\$	44,297	\$	81,706	54.22%
901973	\$	12,152	\$	20,372	59.65%
901974	\$	57,943	\$	101,292	57.20%
901975	\$	110,679	\$	199,178	55.57%
901978	\$	261,788	\$	474,315	55.19%
901979	\$	255,973	\$	465,539	54.98%
901980	\$	219,222	\$	397,689	55.12%
901982	\$	176,978	\$	320,525	55.22%
901983	\$	130,416	\$	238,377	54.71%
901987	\$	76,107	\$	136,833	55.62%
901988	\$	82,488	\$	150,340	54.87%
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902007	\$	14,293	\$	26,424	54.09%	
902030	\$	449,942	\$	818,041	55.00%	
902031	\$	314,228	\$	568,782	55.25%	
902039	\$	9,598	\$	16,191	59.28%	
902041	\$	27,309	\$	49,807	54.83%	
902074	\$	256,160	\$	462,148	55.43%	
902075	\$	370,191	\$	678,193	54.58%	
902076	\$	254,023	\$	462,807	54.89%	
902090	\$	304,337	\$	551,263	55.21%	
902091	\$	366,914	\$	683,837	53.66%	
902108	\$	364,133	\$	654,850	55.61%	
902111	\$	278,865	\$	506,797	55.02%	
902112	\$	419,130	\$	766,443	54.69%	
902115	\$	343,977	\$	625,690	54.98%	
902132	\$	262,927	\$	478,084	55.00%	
902133	\$	227,734	\$	407,443	55.89%	
902153	\$	14,790	\$	24,902	59.39%	
902185	\$	254,559	\$	460,674	55.26%	
902186	\$	146,491	\$	265,205	55.24%	
902220	\$	104,599	\$	181,396	57.66%	
902243	\$	141,262	\$	257,445	54.87%	
902261	\$	224,319	\$	401,977	55.80%	
902324	\$	15,314	\$	27,580	55.53%	
902337	\$	219,614	\$	397,313	55.27%	
902348	\$	140,963	\$	255,382	55.20%	
902432	\$	100,786	\$	181,942	55.39%	
902541	\$	31,792	\$	54,893	57.92%	
902549	\$	38,054	\$	68,338	55.68%	
902586	\$	76,636	\$	135,530	56.55%	
902605	\$	13,117	\$	22,110	59.33%	
Compton Heights F&I	\$	616,171	\$	1,108,943	55.56%	
pagedale 901237	\$	331,498	\$	597,445	55.49%	
pagedale 901239	\$	391,003	\$	709,559	55.11%	
pagedale 901240	\$	181,734	\$	330,615	54.97%	
pagedale 901241	\$	437,949	\$	796,460	54.99%	
pagedale 901249	\$	291,627	\$	528,409	55.19%	
	٥v	verhead Cost	٦	Fotal Cost	Overhead % Total Cost	Average %
Total	\$	49,985,587	\$	89,868,319	55.62%	55.70%

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of)	
Spire Missouri Inc. to Change its)	
Infrastructure System Replacement)	File No. GO-2019-0115
Surcharge in its Spire Missouri East)	
Service Territory)	
In the Matter of the Application of)	
Spire Missouri Inc. to Change its)	
Infrastructure System Replacement)	File No. GO-2019-0116
Surcharge in its Spire Missouri West	;)	
Service Territory)	

PUBLIC COUNSEL DATA REOUEST NO. 1

The Office of Public Counsel (Public Counsel) hereby presents the following Data Request to Spire Missouri East and Spire Missouri West pursuant to Commission Rule 4 CSR 240-2.090. Public Counsel asks that Spire respond to this request within two (2) calendar days of receipt as the Commission ordered. Please provide electronic responses to the following: opcservice@ded.mo.gov and john.clizer@ded.mo.gov. This data request is continuing in nature and requires supplemental responses as soon as further or different information is obtained that is responsive to it.

DEFINITIONS

As used herein, the words "document," "documents," or "documentation" include any original and all copies of any written, printed, typed, electronically stored, or graphic matter of any kind or nature, however produced or reproduced, now in your possession, custody or control, or in the possession, custody or control of your agents, representatives, employees of you or any and all persons acting in your behalf, including documents at any time in the possession, custody or control of such individuals or entities, or known by you to exist.

DATA REQUEST

1. On February 26, 2019, the OCP sent Spire a data request ("DR") on behalf of John Robinett numbered 8523 that requested "all documentation that defined how overhead is determined and charged for each project claimed as ISRS eligible." Spire responded to that DR as follows:

The Company is unclear of how to respond to this request because the definition of "overhead" is vague. There are a variety of types of overheads, including department clearings, mechanical equipment clearings, vehicle hours, pension and group insurance, and other indirect charges etc. This request needs to be more narrowly defined in order for the Company to answer in a meaningful way.

While the OPC considers this to be an improper and untimely objection to its prior DR, the OPC will nevertheless seek to clarify its request through the issuance of this new DR so as to forgo further difficulties.

The "overhead" that the OPC is requesting is that found in the workpapers for individual projects that Spire has already supplied. By way of example, within the electronic copies of the company workpapers supplied by Spire there is a folder labeled "Individual Project Analysis." Within this folder are subfolders labeled "January Individual Files" and "June Individual Files." Within the folder labeled "January Individual Files" there are subfolders labeled "East" and "West." Within the folder labeled "East" are a number of files formatted for Microsoft Excel. One such file is labeled 900974. If one opens the file labeled 900974, then one would find the information contained in the following table as well as several maps and diagrams:

	Scenario 1 All new	Scenario 2 Utilize Exsiting
	pipe	pipe
Plastic Abandon	264	10
Steel Abandon	30	30
Cast Iron Abandon	4781	4781
Plastic Main Installed	4425	4171
Plastic Existing Main		
Used	2012	254
Total Service Renew	70	13
Total Service Transfer	70	74
Total Service Abandon	22	18
Total Service Uprate	20	20
Total Service Install	0	0
Total Services	112	112
Labor Cost	108,253.81	132,711.22
Material Cost	78,075.96	76,306.05
Tool Cost	54,730.56	51,474.92
Overhead Costs	295,229.21	352,613.67
Total Cost	\$536,290	\$613,106

13313515 - Central West End Phase 1B (Partney/Baerman)

Comments:

Added extra tie in holes to tie in and upgrade remainin plastic and changed over 61 services from renewals to transfer.

One of the lines of the table found in the file labeled 900974 is titled "overhead costs." This line labeled "overhead costs" is the "overhead" to which the OPC's DR refers.

The OPC is requesting that, for each and every "individual project analysis" for which an "overhead cost" was calculated for either Spire East or Spire West, Spire provide the following information and produce all supporting documentation regarding the same:

- (a) A breakdown of all the costs that are included in the line labeled "overhead costs;"
- (b) An explanation of how each cost item that makes up the line labeled "overhead costs" is itself calculated;
- (c) A narrative description of what measures Spire has in place to ensure all costs included in the line labeled "overhead costs" are not already being collected in base rates; and (when applicable)
- (d) An explanation via narrative response for why the line labeled "overhead costs" makes up more than fifty percent of the total cost

<u>HOWEVER</u>, given the scale of this request and the short time remaining for discovery, the OPC will accept **<u>instead</u>** answers to the following more general questions:

- (a) A breakdown of all costs that <u>may</u> be included in the line labeled "overhead costs" for any given "individual project analysis;"
- (b) An explanation of how each cost item that **<u>might</u>** make up the total in the line labeled "overhead costs" for any given "individual project analysis" would itself be calculated;
- (c) A narrative description of what measures Spire has in place to ensure that any and all costs that <u>might</u> be included in the line labeled "overhead costs" for any given "individual project analysis" are not already being collected in base rates; and
- (d) A general explanation via narrative response for why the line labeled "overhead costs" makes up more than fifty percent of the total cost for so many of its projects.

In the event that Spire chooses to answer this second set of more general questions, then the OPC further requests that Spire provide specific examples for each of its answers based on the individual project analysis file labeled 900974 (and identified above).

The OPC notes that these questions should not be answered by reference to ambiguous "accounting practices." There should be sufficient detail within Spire's response to permit independent third-parties to verify calculations are correct.

Submitted March 22, 2019, by John Clizer

SPIRE RESPONSE - OPC DATA REQUEST NO. 1 GO-2019-0115 AND GO-2019-0116

(a) A breakdown of all costs that **may** be included in the line labeled "overhead costs" for any given "individual project analysis;"

Please see the attached spreadsheet which contains the overhead categories and amounts used to derive the calculation of the estimate for overhead costs for both ISRS scenario one and scenario two that were provided as part of the Company's workpapers for project number 900974. Filter column F of the spreadsheet to see the different scenarios (1 and 2).

(b) An explanation of how each cost item that **might** make up the total in the line labeled "overhead costs" for any given "individual project analysis" would itself be calculated;

For each of the line items in the attached spreadsheet an estimate of the quantity required multiplied by the applicable unit of measurement results in the cost estimate for that item.

(c) A narrative description of what measures Spire has in place to ensure that any and all costs that **might** be included in the line labeled "overhead costs" for any given "individual project analysis" are not already being collected in base rates; and

Projects are flagged as ISRS eligible or non-ISRS eligible. Those projects that are deemed ISRS eligible are all projects that meet the requirements within the ISRS statute including the requirement that all projects "were not included in the gas corporation's rate base in its most recent general rate case." Therefore, overheads for projects that are deemed ISRS eligible are incremental to any overheads associated with projects that are included in the rate base used in the Company's current base rate revenue requirement. In addition, as stated in the Company response to OPC DR 8524, for overheads capitalized, this capitalized portion is separated from and serves to reduce the O&M expense percentage that is used to establish the Company's revenue requirement in a rate case.

(d) A general explanation via narrative response for why the line labeled "overhead costs" makes up more than fifty percent of the total cost for so many of its projects.

As the Company explained in its initial response to OPC Data Request 8523, the Company capitalizes numerous items in its overheads. The Company has not capitalized any items that are not considered standard overhead loadings that have been reviewed in prior ISRS and general rate cases. The fact that in some instances overheads make up over 50% is not unusual as the Company has followed the same treatment for these items associated with capital projects that it has in the past.

WORKORDER		REQUESTNUM	CUNAME
13313515	900974	2199	Overheads Capitalized-General (Materials, Tools)
13313515	900974	2199	Overheads Capitalized General (Materials, Tools)
13313515	900974	2199	Overheads Capitalized-General (Materials, Tools)
13313515	900974	2199	Overheads Capitalized-General (Materials, Tools)
13313515	900974	2199	Overheads Capitalized-General (Materials, Tools)
13313515	900974	2199	Overheads Capitalized-General (0.479 of PT)
13313515	900974	2199	Overhead Capitalized-Benefits (0.472 of Labor+DC)
13313515	900974	2199	Payroll Taxes
13313515	900974	2199	Department Clearings
13313515	900974	2199	Overheads Capitalized-General (0.479 of PT)
13313515	900974	2199	Overhead Capitalized-Benefits (0.472 of Labor+DC)
13313515	900974	2199	Payroll Taxes
13313515	900974	2199	Department Clearings
13313515	900974	2199	Overheads Capitalized-General (0.479 of PT)
13313515	900974	2199	Overhead Capitalized-Benefits (0.472 of Labor+DC)
13313515	900974	2199	Payroll Taxes
13313515	900974	2199	Department Clearings
13313515	900974	2199	Overheads Capitalized-General (Materials, Tools)
13313515	900974	2199	Overheads Capitalized-General (Materials, Tools)
13313515	900974	2199	Overheads Capitalized-General (Materials, Tools)
13313515	900974	2199	Overheads Capitalized-General (Materials, Tools)
13313515	900974	2199	Overheads Capitalized-General (Materials, Tools)
13313515	900974	2199	Overheads Capitalized-General (Materials, Tools)
13313515	900974	2199	Overheads Capitalized-General (Materials, Tools)
13313515	900974	2199	Overheads Capitalized-General (Materials, Tools)

ESTVERSION	ESTDESCRIPTION	RECORDTYPE	LINECOST	QUANTITY	SITEID
6	ISRS 2	LDG	1455.48	3038.59	SITE ONE
6	ISRS 2	LDG	4898.12	10225.71	SITE ONE
6	ISRS 2	LDG	92.01	192.09	SITE ONE
6	ISRS 2	LDG	2606.44	5441.41	SITE ONE
6	ISRS 2	LDG	24.6	51.35	SITE ONE
6	ISRS 2	LDG	3619.4	49580.81	SITE ONE
6	ISRS 2	LDG	50324.52	49580.81	SITE ONE
6	ISRS 2	LDG	7585.86	49580.81	SITE ONE
6	ISRS 2	LDG	57017.93	49580.81	SITE ONE
6	ISRS 2	LDG	5810.06	79589.82	SITE ONE
6	ISRS 2	LDG	80783.67	79589.82	SITE ONE
6	ISRS 2	LDG	12177.24	79589.82	SITE ONE
6	ISRS 2	LDG	91528.29	79589.82	SITE ONE
6	ISRS 2	LDG	258.46	3540.59	SITE ONE
6	ISRS 2	LDG	3593.7	3540.59	SITE ONE
6	ISRS 2	LDG	541.71	3540.59	SITE ONE
6	ISRS 2	LDG	4071.68	3540.59	SITE ONE
6	ISRS 2	LDG	649.96	1356.9	SITE ONE
6	ISRS 2	LDG	3299.04	6887.35	SITE ONE
6	ISRS 2	LDG	714.2	1491.03	SITE ONE
6	ISRS 2	LDG	8482.35	17708.45	SITE ONE
6	ISRS 2	LDG	122.89	256.56	SITE ONE
6	ISRS 2	LDG	8129.83	16972.51	SITE ONE
6	ISRS 2	LDG	4576.18	9553.61	SITE ONE
6	ISRS 2	LDG	250.05	522.03	SITE ONE