

LARGE FILING SEPARATOR SHEET

CASE NUMBER 08-1094-EL-SSO
08-1095-EL-ATA
08-1096-EL-AAM
08-1097-EL-UNC

FILE DATE 08/04/2009

SECTION Pt. 3 of 3

NUMBER OF PAGES 39

DESCRIPTION OF DOCUMENT

Updated Schedules and Workpapers

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Demand Side Management Program - Non-Residential Time of Use Pricing

UPDATED

WPG-1.13
Page 1 of 1
Witness Responsible:
Maria Bubp

Type of Filing: Original
Work Paper Reference No(s): WPG-1.12

Line No	Description	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2018 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	Non-Residential Customers with AMI	2,898	26,555	60,075	81,157	62,259	63,361	64,503	65,645	66,806	67,989				WPG-1.12, Line 1
2	Annual % of Incremental Participation	0.00%	0.00%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%				Non-residential Survey
3	Incremental Annual Enrollment	-	-	721	734	747	761	774	788	802	816				Line 1 * Line 2
4	Customers on TOU Program	-	-	721	1,455	2,202	2,963	3,737	4,525	5,327	6,143				Cumulative Total from Line 3
5	Marketing and Administration	-	-	\$258,125	\$266,514	\$275,176	\$284,119	\$293,353	\$302,887	\$312,731	\$322,885	\$2,315,800	\$2,915,538	\$5,231,338	DP&L Estimate
6	Average Demand per Customer	31.90													2007 Avg Demand Per Non-Residential Customer
7	Percentage Reduction in Demand	4.9%													California Statewide Pricing Pilot
8	Demand Savings per Customer	\$1.56	\$1.56	\$1.56	\$1.56	\$1.56	\$1.56	\$1.56	\$1.56	\$1.56	\$1.56				Line 6 * Line 7
9	Incremental Annual Demand Savings	-	-	\$1,124.80	\$1,145.00	\$1,165.30	\$1,187.20	\$1,207.40	\$1,229.30	\$1,251.10	\$1,273.00				Line 3 * Line 8
10	Cumulative Annual Demand Savings	-	-	\$1,124.80	\$2,269.80	\$3,435.10	\$4,622.30	\$5,828.70	\$7,059.00	\$8,310.10	\$9,583.10				Line 4 * Line 8

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Demand Side Management Program - Non-Residential Time of Use + Critical Peak Pricing

UPDATED

WPG-1.14
Page 1 of 1
Witness Responsible:
Maria Bubp

Type of Filing: Original
Work Paper Reference No(s):: WPG-1.12, WPG-1.13

Line No (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	Non-Residential Customers with AM	2,898	28,555	60,075	61,157	62,259	63,381	64,503	65,645	66,806	67,989				WPG-1.12, Line 1
2	Annual Percentage of Incremental Participation	0.00%	0.00%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%				Non-residential Survey
3	Incremental Annual Enrollment	-	-	721	734	747	761	774	788	802	816				Line 1 * Line 2
4	Customers on TOU-CPP Program	-	-	721	1,455	2,202	2,963	3,737	4,525	5,327	6,143				Cumulative Total from Line 3
5	Marketing and Administration	-	-	\$258,125	\$268,514	\$275,176	\$284,119	\$293,353	\$302,887	\$312,731	\$322,885	\$2,315,800	\$2,915,538	\$5,231,338	DP&L Estimate
6	Average Demand per Customer (kW)	31.90													WPG-1.13, Line 6
7	Percentage Reduction in Demand	6.0%													Papco MD filing
8	Demand Savings per Customer (kW)	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91				DP&L Estimate
9	Incremental Annual Demand Savings (kW)	-	-	1,377.1	1,401.9	1,426.8	1,453.5	1,478.3	1,505.1	1,531.8	1,558.6				Line 3 * Line 8
10	Cumulative Annual Demand Savings (kW)	-	-	1,377.1	2,779.1	4,205.8	5,659.3	7,137.7	8,642.8	10,174.6	11,733.1				Line 4 * Line 8

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Demand Side Management - Smart Grid

UPDATED
WPG-1.16
Page 1 of 1
Witness Responsible:
Jeff Teuscher

Date: 12 Months Forecast
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Work Paper Reference No(s): n/a

Line No.	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L)+(M) (O)	Source
1	DP&L Sales Forecast (MWh)	15,680,138	15,801,230	15,938,541	16,077,757	16,215,061	16,356,225	16,503,838	16,650,648	16,794,435	16,940,277	162,943,150	140,068,448	303,011,598	DP&L LTR Forecast
2	Ohio Legislative Energy Efficiency Targets (MWh)	118,606	222,386	340,982	474,424	622,882	770,939	919,197	1,067,454	1,215,712	1,512,227				Exhibit MWB-01
3	Forecast of MWh Sales Net of EE and DR	15,541,532	15,578,844	15,597,549	15,603,333	15,592,379	15,585,286	15,589,641	15,583,194	15,578,723	15,428,050	155,878,931	120,261,242	275,939,773	Line 1 - Line 2
4	Percentage of System with Distribution Automation	0.9%	7.3%	18.3%	29.4%	40.4%	51.3%	62.1%	73.0%	83.8%	94.6%				Deployment Schedule of Distribution Automation
5	System Sales in MWh with Distribution Automation	137,232	1,134,883	2,867,829	4,581,111	6,248,908	7,999,071	9,987,803	11,369,198	13,051,049	14,593,641	71,710,823	120,261,242	191,971,765	Line 3 - Line 4
6	1.5% Energy Savings from Volt-VAR Optimization	2,056	17,023	42,867	68,717	94,464	119,968	145,314	170,558	195,766	218,905	1,075,858	1,803,918	2,879,676	Line 5 - 1.5%. See Note
7	DP&L Demand Forecast (MW)	3,333	3,364	3,397	3,427	3,459	3,489	3,519	3,549	3,579	3,609	34,725	29,807	84,532	DP&L LTR Forecast
8	DSM Reductions in Demand (MW)	56	80	104	128	152	176	200	223	247	271	1,537	2,168	3,805	MWB-01
9	Forecast of MW Demand Net of EE and DR	3,277	3,284	3,293	3,299	3,307	3,313	3,319	3,326	3,332	3,338				Line 7 - Line 8
10	Percentage of System with Distribution Automation	0.9%	7.3%	18.3%	29.4%	40.4%	51.3%	62.1%	73.0%	83.8%	94.6%				Distribution Automation Deployment Schedule
11	System Demand with Distribution Automation (MW)	29	239	603	989	1,336	1,700	2,082	2,427	2,791	3,157				Line 9 - Line 10
12	2.0% Savings from Volt-VAR Optimization Under Load	0.6	4.8	12.1	19.4	28.7	34.0	41.2	48.5	55.8	63.1				Line 11 - 2%. See Note

Note: 'Northwest Energy Efficiency Alliance' report sponsored by DOE and published in December, 2007

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1034-EL-SSO
BOOK II - Customer Conservation and Energy Management:
Residential Energy Displays

UPDATED

WPG-1.17
Page 1 of 1
Witness Responsible:
Jeff Teutscher

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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	Residential Customers with AMI	23,070	208,337	484,557	486,148	487,742	489,343	470,917	472,504	474,091	475,678				WPG-1.7
2	% of Customers that Utilize the Home Energy Portal to Increase Energy Efficiency without HED	-	2%	4%	7%	10%	10%	10%	10%	10%	10%				DP&L Estimates
3	Cumulative Users of Energy Portal	-	4,167	18,582	32,630	46,774	46,934	47,092	47,250	47,409	47,568				Line 1 * Line 2
4	% of customers with AMI Given an HED (low income)	-	3%	8%	10%	10%	10%	10%	10%	10%	10%				DP&L Estimates
5	% of customers with AMI that purchase HED	-	2%	4%	7%	10%	10%	10%	10%	10%	10%				DP&L Estimates
6	Cumulative HED Devices in Field	-	10,417	53,424	79,245	93,546	93,869	94,183	94,501	94,818	95,136				(Line 4+Line 5) * Line 1
7	Average Savings per Customer for Home Energy Portal	3.00%													ACEEE Emerging Technologies Report "In-Home Energy Use Displays"
8	Average Savings per Customer for HED	7.50%													ACEEE Emerging Technologies Report "In-Home Energy Use Displays"
9	Average Annual Residential Energy (kWh)	12,120													2007 FERC Form 1
10	Incremental Customers Given an HED	-	6,250	28,592	11,773	-	-	-	-	-	-	46,815	-	46,815	Line 6 * Line 3 - (cumulative HED's given away in previous years)
11	Average Cost of HED Given to Low Income Customers	\$100.43	\$100.43	\$98.42	\$96.45	\$94.52	\$92.63	\$90.78	\$88.97	\$87.19	\$85.44				AMI RFP
12	Total Expenses for HED's provided to low income Customers	-	\$627,700	\$2,614,031	\$1,135,524	-	-	-	-	-	-	\$4,577,254	-	\$4,577,254	Line 10 * Line 11
13	Annual Energy Savings (kWh)	-	10,983,964	55,318,983	83,697,989	102,042,596	102,391,869	102,735,159	103,081,441	103,427,724	103,774,005	767,653,631	840,580,515	1,608,234,146	(Line 7 * Line 3 * Line 9) + (Line 8 * Line 6 * Line 9)

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Non-Residential Energy Display

NEW

WPG-1.23
Page 1 of 1
Witness Responsible:
Jeff Teuscher

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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-19 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	Non-Residential Customers with AMI	2,698	25,555	60,075	81,157	82,259	83,381	84,503	85,645	86,806	87,989				Updated WPG-1.12, Line 1
2	Small C&I Customers with AMI (86% of Line 1)	2,493	22,838	51,665	52,595	53,543	54,508	55,472	56,454	57,454	58,470				Small C&I is 86% of Non-Res Based on FERC Form 1
3	% of Customers that utilize Energy Portal to increase Energy Efficiency without Energy Display	-	2%	4%	7%	10%	10%	10%	10%	10%	10%				DP&L Estimates
4	Cumulative Users of Energy Portal	-	457	2,067	3,692	5,354	5,451	5,547	5,645	5,746	5,847				Line 2 * Line 3
5	% of customers with AMI that purchase Energy Display	-	2%	4%	7%	10%	10%	10%	10%	10%	10%				DP&L Estimates
6	Cumulative Energy Display Devices in Field	-	457	2,067	3,692	5,354	5,451	5,547	5,645	5,745	5,847				Line 2 * Line 5
7	Average Savings per Customer for Energy Portal	3.00%													ACEEE Emerging Technologies Report "In-Home Energy Use Displays"
8	Average Savings per Customer for HED	10.00%													ACEEE Emerging Technologies Report "In-Home Energy Use Displays"
9	Average Annual Energy (KWh)	16,600													DP&L typical small C&I Customer Consumption
10	Annual Energy Savings	-	\$985,673	\$4,459,680	\$7,946,004	\$11,554,523	\$11,762,753	\$11,970,954	\$12,182,840	\$12,398,478	\$12,617,929	\$86,977,831	\$106,886,082	\$192,763,913	(Line 4 * Line 9) + (Line 6 * Line 8)

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Business Cases Summary

NEW

WPHL-1-Business Cases Summary
Page 1 of 1
Witness Responsible:
Scott Kelly

Type of Filing: Original
Work Paper Reference No(s): WPG-1, WPHL-1, WPI-1

Line No.	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
AMI Business Case (000's)															
1	AMI Solution Capital	(\$54,456)	(\$89,532)	(\$55,473)	(\$2,932)	(\$1,632)	(\$398)	-	-	-	-	(\$184,421)	-	(\$184,421)	WPH-1
2	AMI Solution O&M	(\$909)	(\$2,531)	(\$6,064)	(\$7,215)	(\$7,511)	(\$7,537)	(\$7,564)	(\$7,592)	(\$7,324)	(\$7,344)	(\$81,612)	(\$39,148)	(\$100,761)	WPH-1
3	AMI Solution Operational Benefits	\$271	\$2,776	\$8,137	\$12,915	\$13,110	\$13,283	\$13,484	\$13,684	\$13,883	\$14,111	\$105,673	\$119,871	\$225,544	WPH-1
4	AMI Enabled Customer Energy/Demand Savings Programs	(\$216)	(\$1,965)	(\$7,185)	(\$5,521)	(\$4,421)	(\$4,612)	(\$4,334)	(\$4,457)	(\$4,584)	(\$4,716)	(\$41,991)	(\$40,765)	(\$82,777)	WPH-1
5	AMI Enabled Customer Energy/Demand Savings Benefits	\$316	\$1,190	\$5,729	\$10,157	\$16,273	\$20,293	\$23,865	\$27,055	\$30,427	\$34,111	\$169,414	\$407,279	\$576,693	WPH-1
6	AMI Enabled Societal Benefits (Reliability Improvements and Decreased Emissions)	\$345	\$2,891	\$7,209	\$7,845	\$8,312	\$8,429	\$8,548	\$8,668	\$8,789	\$8,911	\$69,948	\$74,727	\$144,675	WPH-1
7	AMI Solution NET of Benefits and Costs AMI 18 Year NPV (9.36%) \$116,448,920	(\$54,947)	(\$67,172)	(\$47,847)	\$15,249	\$24,130	\$29,488	\$33,999	\$37,358	\$41,201	\$45,073	\$57,011	\$521,943	\$578,954	sum lines 1-6
Smart Grid Business Case (000's)															
8	Smart Grid Solution Capital	(\$24,384)	(\$33,342)	(\$21,814)	(\$27,014)	(\$20,738)	(\$15,872)	(\$13,054)	(\$13,130)	(\$13,038)	(\$12,984)	(\$195,180)	-	(\$195,180)	WPI-1
9	Smart Grid Solution O&M Costs	(\$657)	(\$1,229)	(\$2,294)	(\$2,634)	(\$3,376)	(\$3,979)	(\$4,153)	(\$4,326)	(\$4,487)	(\$4,665)	(\$31,710)	(\$43,269)	(\$74,979)	WPI-1
10	Smart Grid Solution Operational Benefits	\$15	\$159	\$449	\$678	\$1,133	\$1,568	\$1,745	\$1,927	\$2,113	\$2,303	\$12,090	\$20,330	\$32,420	WPI-1
11	Smart Grid Customer Energy/Demand Savings Benefits	\$142	\$1,214	\$3,114	\$5,422	\$8,213	\$11,284	\$14,329	\$17,500	\$20,848	\$24,391	\$108,456	\$234,745	\$341,201	WPI-1
12	Smart Grid Enabled Societal Benefits (Reliability Improvements and Decreased Emissions)	\$379	\$2,552	\$6,539	\$10,611	\$14,586	\$18,819	\$22,951	\$27,354	\$31,857	\$36,047	\$171,496	\$314,539	\$486,035	WPI-1
13	Smart Grid Solution NET of Benefits and Costs Smart Grid 18 Year NPV (9.36%) \$146,451,241	(\$24,414)	(\$30,645)	(\$13,806)	(\$12,936)	(\$183)	\$11,820	\$21,818	\$29,325	\$37,083	\$45,091	\$63,152	\$526,344	\$589,497	sum lines 8-12
14	TOTAL SOLUTION Net of Benefits and Costs Total Solution 18 Year NPV (9.36%) \$262,898,161	(\$79,081)	(\$97,818)	(\$61,453)	\$2,313	\$23,947	\$41,288	\$55,817	\$66,683	\$78,284	\$90,164	\$120,163	\$1,048,288	\$1,168,451	line 8+Line 13

THE DAYTON POWER AND LIGHT COMPANY
Case No. DB-1094 EL-330
BOOK 11 - Customer Conservation and Energy Management
AMI Summary

NEW
WPH-1 AMI
Summary
Page 3 of 11
Witness Responsible:
Jeff Tyschler

Type of Filing: Original
Work Paper Reference No(s): WPH-1.1, WPH-1.3 thru 1.8, WPG-1.1

Line No.	Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Total Sum (B)(K)	Years 11-18 (N)	Grand Total (L) + (M)	Source	
1	Capital Costs															
2	AMI Meter Capital	\$14,353,695	\$32,704,745	\$41,375,244	\$2,137,055	\$903,069	-	-	-	-	-	\$81,474,028	-	\$81,474,028	WPH-1.1	
3	AMI Communications Capital	\$13,142,055	\$11,859,059	\$420,000	-	-	-	-	-	-	-	\$25,451,124	-	\$25,451,124	WPH-1.3	
4	AMI IT Capital Costs	\$24,938,645	\$24,937,523	\$15,877,447	\$784,581	\$728,944	\$387,832	-	-	-	-	\$87,495,474	-	\$87,495,474	WPH-1.4	
5	Total AMI Solution Capital Costs	\$52,434,395	\$69,501,328	\$58,472,691	\$2,921,636	\$1,632,013	\$387,832	-	-	-	-	\$164,420,625	-	\$164,420,625	Line 1+Line 2+Line 3	
6	18 year NPV	\$153,671,776														
7	Transmission-Enabled DSM Program Expenses															
8	CCEM PWO and CM Allocation to DSM Programs	\$215,679	\$222,149	\$228,814	\$235,678	\$121,374	\$125,016	\$128,766	\$132,628	\$136,506	\$146,705	\$1,637,420	-	\$1,637,420	DP&L Estimate	
9	AMI Technology Enabled DSM O&M Costs	\$174,064	\$6,336,361	\$6,296,702	\$4,488,866	\$4,308,023	\$4,447,530	\$4,206,221	\$4,324,357	\$4,447,530	\$4,574,888	\$40,303,871	\$40,783,378	\$81,089,347	WPG-1	
10	Total AMI Technology Enabled DSM O&M Costs	\$198,514	\$198,514	\$7,166,175	\$6,521,359	\$4,427,397	\$4,611,871	\$4,333,867	\$4,456,956	\$4,584,136	\$4,715,594	\$41,991,391	\$40,786,376	\$82,776,767	Line 6+Line 7	
11	O&M Costs	\$35,441,583														
12	AMI Meter O&M Costs	\$885,942	\$763,136	\$1,145,917	\$911,765	\$930,219	\$949,227	\$984,804	\$988,969	\$7,247,979	\$726,328	\$6,632,125	\$6,156,406	\$14,677,533	WPH-1.5	
13	AMI Communications O&M Costs	\$322,828	\$1,787,875	\$4,421,508	\$423,508	\$423,508	\$423,508	\$423,508	\$423,508	\$423,508	\$423,508	\$3,388,064	\$3,388,064	\$8,778,128	WPH-1.6	
14	AMI IT O&M Costs	\$988,867	\$2,531,111	\$5,633,860	\$7,215,205	\$7,311,275	\$7,537,411	\$7,564,346	\$6,170,635	\$6,187,481	\$6,196,582	\$49,642,319	\$29,564,559	\$79,106,878	WPH-1.4	
15	Total AMI Solution O&M Costs	\$446,768,186	\$2,775,527	\$13,191,181	\$12,550,283	\$13,100,885	\$13,202,062	\$13,444,068	\$13,635,775	\$13,892,532	\$14,111,119	\$105,672,549	\$39,148,132	\$100,760,540	Sum lines 12-15	
16	Operational Benefits															
17	AMI Meter Benefits	\$2,762,158	\$2,762,158	\$8,081,036	\$11,274,626	\$11,382,620	\$11,514,135	\$11,659,275	\$11,788,149	\$11,900,855	\$12,037,347	\$92,651,701	\$100,528,091	\$193,179,792	WPH-1.7	
18	AMI Communications Benefits	\$46,543	\$46,543	\$143,643	\$143,643	\$143,643	\$143,643	\$143,643	\$143,643	\$143,643	\$143,643	\$1,149,554	\$1,149,554	\$2,399,107	WPH-1.8	
19	Total AMI IT Benefits	\$2,775,527	\$2,775,527	\$8,224,679	\$11,428,269	\$11,526,263	\$11,657,778	\$11,802,918	\$11,931,792	\$12,044,498	\$12,180,990	\$93,791,255	\$101,677,645	\$194,877,899	WPH-1.4	
20	Customer Energy/Demand Savings Benefits	\$53,135,732	\$2,717,247	\$8,136,819	\$12,215,146	\$13,100,885	\$13,202,062	\$13,444,068	\$13,635,775	\$13,892,532	\$14,111,119	\$105,672,549	\$119,871,240	\$225,544,189	Sum lines 15-17	
21	AMI Enabled Demand Response Program Capacity Benefits	\$315,732	\$851,416	\$1,826,546	\$3,968,463	\$6,373,241	\$12,089,825	\$15,389,110	\$18,244,147	\$21,288,816	\$24,634,370	\$105,971,286	\$320,210,422	\$427,181,708	WPH-1.9	
22	AMI Enabled Customer Feedback Energy Benefits	\$338,133	\$338,133	\$3,902,971	\$6,168,361	\$7,898,535	\$8,192,904	\$8,468,273	\$8,610,780	\$8,137,513	\$9,476,637	\$82,443,128	\$87,068,298	\$149,511,337	WPH-1.9	
23	Customer Energy/Demand Savings Benefits	\$315,732	\$1,189,548	\$5,728,516	\$10,166,864	\$18,272,776	\$20,252,820	\$23,866,384	\$27,054,927	\$30,427,128	\$34,111,807	\$189,414,414	\$407,278,630	\$576,693,044	Line 20+Line 21	
24	AMI Cash Flow (CapEx, OpEx, Operational Benefits, Customer Energy/Demand Benefits)	\$84,981,962	\$79,862,867	\$84,896,660	\$7,403,785	\$18,817,866	\$21,038,277	\$23,461,136	\$26,689,604	\$32,411,706	\$36,102,076	\$192,937,060	\$447,216,363	\$640,153,426	Line 4+Line 13+Line 18+Line 22	
25	Savings from AMI Reliability Investments	\$345,049	\$2,762,590	\$6,179,778	\$6,252,400	\$6,326,360	\$6,389,077	\$6,473,482	\$6,549,330	\$6,625,861	\$6,703,009	\$54,845,943	\$65,692,473	\$110,338,416	WPH-1.9 Line 49	
26	Savings from AMI Enabled Reduced Emissions	\$98,027	\$1,029,616	\$1,562,976	\$1,562,976	\$1,562,976	\$2,030,358	\$2,074,340	\$2,118,716	\$2,163,216	\$2,208,212	\$18,302,034	\$19,054,812	\$34,356,847	WPH-1.9 Line 51	
27	Total Savings from AMI Enabled Benefits	\$443,076	\$3,792,206	\$7,742,754	\$7,815,376	\$7,889,336	\$8,420,435	\$8,547,822	\$8,668,046	\$8,789,077	\$8,911,220	\$73,147,977	\$84,747,285	\$144,695,263	Line 25+Line 26	
28	AMI Cash Flow (Net All Benefits)	\$84,638,914	\$83,170,661	\$92,069,414	\$16,246,161	\$24,126,781	\$28,467,712	\$33,989,096	\$37,357,849	\$41,200,881	\$45,013,296	\$266,085,037	\$631,963,646	\$896,858,311	\$1,241,516,619	Line 23+Line 27
29	18 Year Net Present Value (All Benefits, 9.35%)															

Discount Rate
18 Year Net Present Value (All Benefits, 9.35%)

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1064-EL-SSO
BOOK II - Customer Conservation and Energy Management
AMI Meters

UPDATED

WPR-1.1
Page 1 of 1
Witness Responsible:
Jeff Teuscher

Type of Filing: Original
Work Paper Reference No(s): n/a

Line No.	Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Total Sum (B)-(C) (M)	Years 11-19 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	# of Residential Meters	25,061	200,730	276,004	-	-	-	-	-	-	-	501,826	-	501,826	# of meters deployed in field
2	Cost per Residential Meter (Hardware)	\$103.08	\$103.08	\$103.08	\$105.60	\$105.60	\$105.60	\$105.60	\$105.60	\$105.60	\$105.60	\$51,727.471	-	\$51,727.471	RFP Response line 1 + line 2
3	Total Residential Meter Hardware Costs	\$2,585,374	\$20,860,988	\$28,450,109	-	-	-	-	-	-	-	\$51,727.471	-	\$51,727.471	RFP Response line 1 + line 2
4	Cost per Residential Meter (Install)	\$18.00	\$18.00	\$18.00	\$18.54	\$19.10	\$19.67	\$20.26	\$20.87	\$21.49	\$22.14	\$8,032.868	-	\$8,032.868	RFP Response line 1 + line 4
5	Total Residential Meter Install Costs	\$451,643	\$3,613,147	\$4,968,077	-	-	-	-	-	-	-	\$8,032.868	-	\$8,032.868	RFP Response line 1 + line 4
6	Total Residential Meter Installed Costs	\$3,035,017	\$24,304,135	\$33,418,187	-	-	-	-	-	-	-	\$60,760,339	-	\$60,760,339	line 3 + line 5
7	# of C&I Meters	949	7,365	10,161	-	-	-	-	-	-	-	18,474	-	18,474	# of polyphase + form 125 meters in field
8	Cost per C&I Meter (Hardware)	\$265.74	\$265.74	\$265.74	\$265.74	\$265.74	\$265.74	\$265.74	\$265.74	\$265.74	\$265.74	\$4,909,267	-	\$4,909,267	RFP Response (Average Polyphase Meter + form 125 Meter Cost)
9	Total C&I Meter Hardware Costs	\$252,107	\$1,957,063	\$2,700,087	-	-	-	-	-	-	-	\$4,909,267	-	\$4,909,267	line 7 + line 8
10	Cost per C&I Meter (Install)	\$18.00	\$18.00	\$18.00	\$18.54	\$19.10	\$19.67	\$20.26	\$20.87	\$21.49	\$22.14	\$332,532	-	\$332,532	RFP Response line 7 + line 10
11	Total C&I Meter Install Costs	\$17,077	\$132,563	\$182,893	-	-	-	-	-	-	-	\$332,532	-	\$332,532	RFP Response line 7 + line 10
12	Total C&I Meter Installed Costs	\$265,163	\$2,059,626	\$2,882,980	-	-	-	-	-	-	-	\$5,241,799	-	\$5,241,799	line 9 + line 11
13	# of Power Quality Meters	-	225	275	-	-	-	-	-	-	-	500	-	500	Top 1% of energy users in field today
14	Cost per Power Quality Meter (Polyphase Meter + 2 Way Voice/Data Comm Card)	\$343	\$343	\$343	\$343	\$343	\$343	\$343	\$343	\$343	\$343	\$471,350	-	\$471,350	RFP Response line 13 + line 14
15	Total Power Quality Meter Hardware Costs	-	\$212,108	\$259,243	-	-	-	-	-	-	-	\$471,350	-	\$471,350	RFP Response line 13 + line 14
16	Cost per Power Quality Meter (Install)	\$18.00	\$18.00	\$18.00	\$18.54	\$19.10	\$19.67	\$20.26	\$20.87	\$21.49	\$22.14	\$9,000	-	\$9,000	RFP Response line 13 + line 16
17	Total Power Quality Meter Install Costs	-	\$4,050	\$4,950	-	-	-	-	-	-	-	\$9,000	-	\$9,000	RFP Response line 13 + line 16
18	Total Power Quality Meter Installed Costs	-	\$216,158	\$264,193	-	-	-	-	-	-	-	\$480,350	-	\$480,350	line 15 + line 17
19	Total # of Meters	26,040	208,320	296,440	-	-	-	-	-	-	-	520,800	-	520,800	line 1 + line 7 + line 13
20	Total Meter Hardware Costs	\$2,838,480	\$22,860,158	\$31,408,448	-	-	-	-	-	-	-	\$57,108,088	-	\$57,108,088	line 3 + line 9 + line 15
21	Total Meter Installation Costs	\$468,720	\$3,749,760	\$5,156,320	-	-	-	-	-	-	-	\$9,374,400	-	\$9,374,400	line 5 + line 11 + line 17
22	# of Engineers (Capital)	2	2	2	1	1	-	-	-	-	-	-	-	-	DP&L Estimates
23	Loaded Salary for Engineer (With Benefits) per year	\$105,705	\$105,876	\$112,142	\$116,507	\$118,972	\$122,541	\$126,217	\$130,004	\$133,804	\$137,921	-	-	-	DP&L Estimates
24	# of Project Managers (Capital)	4	4	4	4	1	-	-	-	-	-	-	-	-	DP&L Estimates
25	Loaded Salary for Project Manager (With Benefits) per year	\$129,185	\$133,071	\$137,063	\$141,175	\$145,410	\$149,772	\$154,266	\$158,894	\$163,660	\$168,570	-	-	-	DP&L Estimates
26	Total Capital Engineering & Project Management Salary	\$728,190	\$750,036	\$772,537	\$680,206	\$264,382	-	-	-	-	-	\$3,193,351	-	\$3,193,351	line 22 + line 23 + line 24 + line 25
27	CCEM T&D Lab	\$689,450	-	-	-	-	-	-	-	-	-	\$689,450	-	\$689,450	DP&L Estimates
28	CCEM PMO and CM Allocated to AMI Capital	\$2,007,163	\$1,346,035	\$1,386,416	\$613,853	\$379,822	-	-	-	-	-	\$5,932,689	-	\$5,932,689	DP&L Estimates
29	CCEM Facility Lease and Capital Costs	\$2,910,375	\$690,863	\$690,863	\$269,086	\$269,086	-	-	-	-	-	\$4,610,330	-	\$4,610,330	DP&L Estimates
30	Total Capital Engineering + Project Management + CCEM PMO Allocation + Facility Costs + CCEM Lab	\$6,335,178	\$2,796,963	\$2,849,845	\$1,762,944	\$903,089	-	-	-	-	-	\$14,628,019	-	\$14,628,019	line 26 + line 27 + line 28 + line 29 + Line 30
31	Outsourced Consulting and Engineering Costs	\$4,711,516	\$3,307,892	\$1,980,038	\$384,111	-	-	-	-	-	-	\$10,383,620	-	\$10,383,620	DP&L Estimate
32	Total AMI Meter Capital Cost	\$14,353,695	\$32,704,745	\$41,375,944	\$2,137,065	\$903,089	-	-	-	-	-	\$91,474,028	-	\$91,474,028	line 20 + line 21 + Line 30 + Line 31

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
AMI Communications Capital

UPDATED

WPH-1.3
Page 1 of 1
Witness
Responsible:
Jeff Teuscher

Type of Filing: Original

Work Paper Reference No(s): n/a

Line No. (A)	Description (B)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
		(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)				
1	Microwave Vendor Project Management	\$372,750	\$372,750	-	-	-	-	-	-	-	-	\$745,500	-	\$745,500	RFP Response
2	Microwave Documentation, Training, Spares	\$320,250	\$320,250	-	-	-	-	-	-	-	-	\$640,500	-	\$640,500	RFP Response
3	IP Enabling Existing Fiber Resources	\$440,000	-	-	-	-	-	-	-	-	-	\$440,000	-	\$440,000	DP&L Estimate
4	Network Management System (Manage All Equipment not Managed by Transmission or Distribution SCADA System)	\$1,479,500	\$1,198,000	-	-	-	-	-	-	-	-	\$2,687,500	-	\$2,687,500	DP&L Estimate
5	Total IP Upgrade Cost for existing Microwave Backbone Sites	\$4,291,350	\$2,294,250	-	-	-	-	-	-	-	-	\$6,585,600	-	\$6,585,600	RFP Response
6	Total Cost for IP Microwave to Sites without Existing Microwave Equipment	\$1,030,365	\$2,404,165	-	-	-	-	-	-	-	-	\$3,434,550	-	\$3,434,550	RFP Response
7	Total Cost to Prepare Fiber Substations that need Towers	\$528,360	\$1,320,900	-	-	-	-	-	-	-	-	\$1,849,260	-	\$1,849,260	RFP Response
8	Total Microwave	\$8,462,575	\$7,900,335	-	-	-	-	-	-	-	-	\$16,362,910	-	\$16,362,910	sum of line 1 - line 7
9	AMI Management System	\$987,640	\$589,484	-	-	-	-	-	-	-	-	\$1,577,134	-	\$1,577,134	RFP Response
10	AMI Vendor Project Management and Engineering Support	\$420,000	\$420,000	\$420,000	-	-	-	-	-	-	-	\$1,260,000	-	\$1,260,000	RFP Response
11	Cost of AMI Communication Equipment in DP&L Substations	\$1,916,640	\$1,517,340	-	-	-	-	-	-	-	-	\$3,433,980	-	\$3,433,980	RFP Response
12	Total Substation Preparation Costs for AMI	\$376,200	\$438,900	-	-	-	-	-	-	-	-	\$815,100	-	\$815,100	RFP Response and DP&L Estimates
13	Cost of AMI Backhaul to Substations	\$264,000	\$308,000	-	-	-	-	-	-	-	-	\$572,000	-	\$572,000	DP&L Estimates
14	AMI Backhaul Project Management	\$385,000	\$385,000	-	-	-	-	-	-	-	-	\$770,000	-	\$770,000	DP&L Estimate
15	AMI Backhaul Engineering Support	\$330,000	\$330,000	-	-	-	-	-	-	-	-	\$660,000	-	\$660,000	DP&L Estimate
16	Total AMI Backhaul Costs	\$4,679,480	\$3,988,734	\$420,000	-	-	-	-	-	-	-	\$9,088,214	-	\$9,088,214	sum of line 9 - line 15
17	Total AMI Communication Capital	\$13,142,055	\$11,888,069	\$420,000	-	-	-	-	-	-	-	\$25,451,124	-	\$25,451,124	Line 8 + Line 16

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Information Technology - Summary

UPDATED

WPH-1.4a
Page 1 of 1
Witness Responsible:
Karen Garrison

Type of Filing: Original
Work Paper Reference No(s): WPH-1.4.1 - WPH-1.4.9

Line No.	Description	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)(K)	Years 11-18 2020-2027 (N)	Grand Total (C) + (M)	Source
1	Summary of IT Capital Costs														
2	Customer Information System - All	\$11,007,291	\$16,957,568	\$10,815,649	-	-	-	-	-	-	-	\$37,810,508	-	\$37,810,508	See DP&L IT Budget Estimate (Workpapers tab) WPH-1.4.1
3	eService (Webchat) - AMI	\$566,124	\$473,477	\$421,559	-	-	-	-	-	-	-	\$2,151,169	-	\$2,151,169	WPH-1.4.2
4	Master Data Management System - AMI	\$3,919,454	\$2,345,026	\$1,644,752	-	-	-	-	-	-	-	\$7,908,232	-	\$7,908,232	WPH-1.4.3
5	Load Management System - AMI	\$400,301	\$436,250	-	-	-	-	-	-	-	-	\$1,036,550	-	\$1,036,550	WPH-1.4.4
6	Outage Management System (OMS) - AMI	\$3,131,760	\$3,727,594	-	-	-	-	-	-	-	-	\$6,859,353	-	\$6,859,353	Allocate 70% of OSM for OMS to AMI for year 2; WPH-1.4.5
7	SCADA - AMI	\$1,652,797	\$516,895	\$595,478	\$764,581	\$728,944	\$337,922	-	-	-	-	\$4,498,617	-	\$4,498,617	WPH-1.4.6
8	Infrastructure - AMI	\$6,151,899	\$1,079,116	-	-	-	-	-	-	-	-	\$7,230,014	-	\$7,230,014	WPH-1.4.8
9	Distribution Management System (DMS) - Smart Grid	\$2,581,692	\$3,586,946	\$1,182,923	\$273,595	\$121,463	-	-	-	-	-	\$7,756,581	-	\$7,756,581	WPH-1.4.6
10	Outage Management System (OMS) - Smart Grid	-	\$1,937,540	-	-	-	-	-	-	-	-	\$1,937,540	-	\$1,937,540	Remaining OMS Allocation, Smart Grid Year 2
11	Mobile Workforce Management (MWM) - Smart Grid	-	-	-	\$5,256,892	\$2,032,037	-	-	-	-	-	\$8,318,749	-	\$8,318,749	WPH-1.4.7
12	Total IT Capital Costs	\$28,550,327	\$30,124,413	\$14,660,370	\$7,334,858	\$2,662,464	\$397,932	-	-	-	-	\$95,170,344	-	\$95,170,344	Sum of lines 2-11
13	Summary of IT O&M Costs														See DP&L IT Budget Estimate (Workpapers tab)
14	Customer Information System - AMI	\$187,691	\$123,518	\$1,341,239	\$1,188,105	\$1,460,452	\$1,462,142	\$1,463,888	\$1,465,860	\$1,467,551	\$1,469,473	\$11,635,149	\$7,012,324	\$18,647,472	WPH-1.4.1
15	eService (Webchat) - AMI	\$3,068	\$29,841	\$156,790	\$316,707	\$317,062	\$317,429	\$317,606	\$318,200	\$318,604	\$319,021	\$2,426,350	\$1,522,367	\$3,948,717	WPH-1.4.2
16	Master Data Management System - AMI	\$16,627	\$127,015	\$568,697	\$708,419	\$708,214	\$710,035	\$710,633	\$711,768	\$712,892	\$713,595	\$5,678,864	\$3,405,274	\$9,084,138	WPH-1.4.3
17	Load Management System - AMI	\$7,187	\$90,596	\$96,628	\$96,731	\$96,839	\$96,952	\$97,067	\$97,187	\$97,310	\$97,438	\$873,932	\$464,972	\$1,338,904	WPH-1.4.4
18	Outage Management System (OMS) - AMI	\$49,247	\$411,012	\$419,495	\$419,952	\$420,423	\$420,910	\$421,413	\$421,931	\$422,467	\$423,020	\$3,626,871	\$2,016,652	\$5,643,523	Allocate 70% of OSM for OMS to AMI for year 2; WPH-1.4.5
19	SCADA - AMI	\$28,165	\$284,104	\$212,464	\$453,405	\$453,048	\$454,508	\$455,065	\$455,684	\$456,300	\$456,937	\$3,921,622	\$3,323,093	\$8,245,285	WPH-1.4.6
20	Infrastructure - AMI	\$29,760	\$466,699	\$1,717,264	\$2,860,616	\$2,859,910	\$2,872,700	\$2,875,081	\$2,879,185	\$2,882,597	\$2,886,099	\$21,178,453	\$12,817,407	\$33,993,839	WPH-1.4.8
21	Distribution Management System (DMS) - Smart Grid	\$40,293	\$213,631	\$419,002	\$419,468	\$473,914	\$574,578	\$575,284	\$576,073	\$576,704	\$577,459	\$4,546,277	\$3,048,964	\$7,596,250	WPH-1.4.6
22	Mobile Workforce Management (MWM) - Smart Grid	-	-	-	\$68,248	\$318,655	\$543,604	\$544,253	\$544,823	\$545,415	\$546,029	\$3,112,636	\$2,864,818	\$5,967,254	WPH-1.4.7
23	Outage Management System (OMS) - Smart Grid	-	\$176,148	\$179,784	\$179,979	\$180,191	\$180,390	\$180,605	\$180,828	\$181,057	\$181,284	\$1,620,267	\$957,295	\$2,577,562	WPH-1.4.5
24	Total IT O&M Costs	\$263,119	\$2,157,794	\$5,113,311	\$6,847,620	\$7,231,308	\$7,463,246	\$7,472,159	\$7,481,358	\$7,490,657	\$7,500,065	\$58,821,400	\$36,465,485	\$95,276,885	Sum of lines 14-23
25	Total IT Costs	\$29,813,425	\$32,282,166	\$19,973,681	\$13,902,478	\$10,113,772	\$7,861,180	\$7,472,160	\$7,491,395	\$7,490,897	\$7,500,665	\$143,581,744	\$36,465,485	\$180,047,229	Line 12 + Line 24
26	Annual Systems Savings - AMI	-	-	-	\$1,865,769	\$1,614,265	\$1,675,827	\$1,741,813	\$1,812,825	\$1,888,714	\$1,970,571	\$12,290,592	\$18,516,180	\$30,779,761	See DP&L IT Budget Estimate (2008 O&M Maintenance Budget tab and Mainframe O&M Savings tab)
27	Annual Maintenance O&M	-	-	-	\$1,506,795	\$1,614,265	\$1,675,827	\$1,741,813	\$1,812,825	\$1,888,714	\$1,970,571	\$12,290,592	\$18,516,180	\$30,779,761	Line 27
28	Total Annual IT Systems Savings	-	-	-	\$1,506,795	\$1,614,265	\$1,675,827	\$1,741,813	\$1,812,825	\$1,888,714	\$1,970,571	\$12,290,592	\$18,516,180	\$30,779,761	
29	Total IT Net Cost / Benefit	(\$29,813,425)	(\$32,282,166)	(\$19,973,681)	\$12,345,713	(\$8,499,507)	(\$6,185,353)	(\$5,730,346)	(\$5,688,720)	(\$5,602,144)	(\$5,530,094)	(\$131,731,152)	(\$17,938,316)	(\$148,667,478)	Line 25 - Line 26

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-044-ELSSD
BOOK 4 - Customer Communications and Energy Management
Information Technology - Summary of Budget Data

NEW

Title of Firm, Original
Work Paper Reference Nest: WPH-1.4.1 - WPH-1.4.9

WPH-1.4.9
Page 1 of 1
Whitman Research
Kaiser Commission

Line No.	Description	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10-Yr Total Budget (M)	Years 11-13 2020-2022 (N)	Grand Total 11-13 (O)	Source
1	Customer Information System - AMI	\$11,027,281	\$11,987,968	\$10,616,649	-	-	-	-	-	-	-	\$37,610,508	-	\$37,610,508	WPH-1.4.1
2	Services (Miscellaneous) - AMI	\$466,124	\$673,477	\$621,236	-	-	-	-	-	-	-	\$2,151,139	-	\$2,151,139	WPH-1.4.2
3	Master Data Management System - AMI	\$3,618,454	\$2,345,026	\$1,644,752	-	-	-	-	-	-	-	\$7,608,232	-	\$7,608,232	WPH-1.4.3
4	Load Management System - AMI	\$400,301	\$638,250	-	-	-	-	-	-	-	-	\$1,038,550	-	\$1,038,550	WPH-1.4.4
5	Outage Management System (OMS) - AMI	\$3,131,730	\$3,727,584	-	-	-	-	-	-	-	-	\$6,859,313	-	\$6,859,313	Allocate 70% of OSM for OMS to AMI for year 2: WPH-1.4.5
6	SCADA - AMI	\$1,862,797	\$3,133,895	\$3,556,478	-	-	-	-	-	-	-	\$8,496,617	-	\$8,496,617	WPH-1.4.6
7	Infrastructure - AMI	\$6,151,050	\$1,076,116	-	-	-	-	-	-	-	-	\$7,227,166	-	\$7,227,166	WPH-1.4.7
8	Total AMI T-Costs	\$28,958,645	\$34,857,925	\$13,677,417	\$794,391	\$728,944	\$397,952	-	-	-	-	\$57,466,474	-	\$57,466,474	Sum of lines 1-7
	IT O&M Costs														See CP&L IT Budget Estimate Worksheet
9	Customer Information System - AMI	\$167,681	\$1,291,918	\$1,341,228	\$1,138,105	\$1,460,452	\$1,462,142	\$1,459,686	\$1,465,880	\$1,467,261	\$1,469,473	\$14,536,149	\$7,912,324	\$14,547,473	WPH-1.4.1
10	Services (Miscellaneous) - AMI	\$3,698	\$29,641	\$160,760	\$395,707	\$317,062	\$317,429	\$317,698	\$318,000	\$318,684	\$319,021	\$2,428,550	\$1,522,357	\$3,949,717	WPH-1.4.2
11	Master Data Management System - AMI	\$16,627	\$127,075	\$658,657	\$706,419	\$709,214	\$710,036	\$710,863	\$711,708	\$712,552	\$713,395	\$6,678,894	\$3,452,274	\$9,094,138	WPH-1.4.3
12	Load Management System (OMS) - AMI	\$7,197	\$90,585	\$388,928	\$88,731	\$89,639	\$88,952	\$89,267	\$89,581	\$89,895	\$90,209	\$873,952	\$464,972	\$1,338,934	WPH-1.4.4
13	Outage Management System (OMS) - AMI	\$48,247	\$411,012	\$419,458	\$418,692	\$420,428	\$421,163	\$421,898	\$422,633	\$423,368	\$424,103	\$3,809,871	\$2,018,682	\$5,828,553	Allocate 70% of OSM for OMS to AMI for year 2: WPH-1.4.5
14	SCADA - AMI	\$29,165	\$284,104	\$2,124,454	\$463,605	\$463,948	\$464,291	\$464,634	\$464,977	\$465,320	\$465,663	\$4,061,622	\$2,323,093	\$6,384,715	WPH-1.4.6
15	Infrastructure - AMI	\$29,760	\$856,669	\$2,717,254	\$2,600,516	\$2,698,610	\$2,697,780	\$2,696,950	\$2,696,120	\$2,695,290	\$2,694,460	\$21,175,439	\$12,617,407	\$33,983,839	WPH-1.4.7
16	Total AMI T-Costs	\$322,025	\$1,787,875	\$4,514,525	\$5,079,934	\$5,157,614	\$5,184,678	\$5,184,678	\$5,184,678	\$5,184,678	\$5,184,678	\$46,542,219	\$25,844,669	\$78,108,978	Sum of lines 9-15
17	TOTAL AMI IT COSTS	\$37,281,471	\$68,705,800	\$18,191,972	\$8,674,315	\$8,886,462	\$8,582,609	\$8,582,609	\$8,582,609	\$8,582,609	\$8,582,609	\$117,657,698	\$29,864,889	\$148,602,587	Line 15 + Line 9
18	Annual System Savings - AMI	-	-	-	\$1,553,766	\$1,514,265	\$1,575,527	\$1,740,513	\$1,812,528	\$1,883,714	\$1,970,571	\$12,283,682	\$16,519,180	\$30,779,761	See CP&L IT Budget Estimate (2008 O&M Maintenance Budget tab and Maintenance O&M Schedule tab)
19	Annual Maintenance O&M	-	-	-	\$1,553,766	\$1,514,265	\$1,575,527	\$1,740,513	\$1,812,528	\$1,883,714	\$1,970,571	\$12,283,682	\$16,519,180	\$30,779,761	Line 18
20	Total Annual AMI IT System Savings	-	-	-	\$1,553,766	\$1,514,265	\$1,575,527	\$1,740,513	\$1,812,528	\$1,883,714	\$1,970,571	\$12,283,682	\$16,519,180	\$30,779,761	Line 20 - Line 17
21	Total AMI T Net Cost / Benefit	\$37,281,471	\$68,705,800	\$18,191,972	\$8,674,315	\$8,886,462	\$8,582,609	\$8,582,609	\$8,582,609	\$8,582,609	\$8,582,609	\$104,777,111	\$11,446,479	\$116,223,590	
	Smart Grid Business Case IT Cost at Costs														
22	Outage Management System (OMS) - Smart Grid	\$2,591,682	\$3,598,949	\$1,182,923	\$273,545	\$121,469	-	-	-	-	-	\$7,758,681	-	\$7,758,681	WPH-1.4.9
23	Outage Management System (OMS) - Smart Grid	-	\$1,597,840	-	-	-	-	-	-	-	-	\$1,597,840	-	\$1,597,840	Remaining OMS Allocation, Smart Grid Year 2
24	Mobile Workforce Management (MWM) - Smart Grid	-	-	-	\$2,206,692	\$2,022,657	-	-	-	-	-	\$8,348,749	-	\$8,348,749	WPH-1.4.7
25	Total Smart Grid IT Capital Costs	\$2,591,682	\$5,196,789	\$1,182,923	\$273,545	\$121,469	-	-	-	-	-	\$17,674,970	-	\$17,674,970	Sum of lines 22-24
	IT O&M Costs														
26	Outage Management System (OMS) - Smart Grid	\$40,280	\$213,831	\$419,023	\$419,458	\$420,914	\$421,366	\$421,818	\$422,270	\$422,722	\$423,174	\$4,546,277	\$3,046,594	\$7,592,871	WPH-1.4.6
27	Mobile Workforce Management (MWM) - Smart Grid	-	-	-	\$69,248	\$119,695	\$119,695	\$119,695	\$119,695	\$119,695	\$119,695	\$1,112,635	\$2,896,615	\$4,009,250	WPH-1.4.7
28	Outage Management System (OMS) - Smart Grid	-	\$176,448	\$176,794	\$176,979	\$180,380	\$180,665	\$180,950	\$181,235	\$181,520	\$181,805	\$1,620,287	\$657,235	\$2,277,522	WPH-1.4.5
29	Total Smart Grid IT O&M Costs	\$40,280	\$399,779	\$695,796	\$697,686	\$701,274	\$702,950	\$704,626	\$706,302	\$707,978	\$709,654	\$8,278,180	\$6,600,444	\$14,878,624	Sum of lines 26-28
30	TOTAL SMART GRID IT COSTS	\$2,631,962	\$5,596,568	\$1,882,719	\$973,193	\$422,643	\$707,626	\$707,626	\$707,626	\$707,626	\$707,626	\$13,906,457	\$7,206,888	\$21,113,345	Line 25 + Line 29
31	Total IT Net Cost / Benefit	\$39,913,433	\$74,302,368	\$19,074,691	\$9,647,508	\$9,308,111	\$9,358,135	\$9,358,135	\$9,358,135	\$9,358,135	\$9,358,135	\$118,683,568	\$18,853,363	\$137,536,931	Line 31 - Line 30

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Information Technology - CIS System Summary

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WP4-14.1
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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-16 2020-2027 (N)	Grand Total (L)+(N) (O)	Source
1	Summary of CIS Capital Costs														
2	Solution Implementation Costs	\$8,367,335	\$13,733,449	\$9,182,518	-	-	-	-	-	-	-	\$29,263,301	-	\$29,263,301	DP&L Estimate
3	Labor Expenses	\$766,917	\$1,716,681	\$1,145,315	-	-	-	-	-	-	-	\$3,657,913	-	\$3,657,913	DP&L Estimate
4	Hardware Purchases	\$919,372	-	-	-	-	-	-	-	-	-	\$919,372	-	\$919,372	DP&L Estimate
5	Software Purchases	\$2,854,668	-	-	-	-	-	-	-	-	-	\$2,854,668	-	\$2,854,668	DP&L Estimate
6	Software Maintenance	-	\$507,438	\$507,816	-	-	-	-	-	-	-	\$1,015,254	-	\$1,015,254	DP&L Estimate
7	Total CIS Capital Costs	\$11,037,291	\$15,957,569	\$10,815,649	-	-	-	-	-	-	-	\$37,810,508	-	\$37,810,508	Sum of Lines 2-7
8	Summary of CIS O&M Costs														
9	Solution Implementation Costs	\$166,837	-	\$593,241	-	-	-	-	-	-	-	\$760,077	-	\$760,077	DP&L Estimate
10	Labor Expenses	\$20,855	-	\$74,155	-	-	-	-	-	-	-	\$95,010	-	\$95,010	DP&L Estimate
11	Hardware Maintenance	-	\$125,918	\$133,013	\$133,157	\$133,307	\$133,461	\$133,621	\$133,785	\$133,955	\$134,130	\$1,197,948	\$640,070	\$1,837,418	DP&L Estimate
12	Software Maintenance	-	-	-	\$513,628	\$514,104	\$514,690	\$515,314	\$515,948	\$516,603	\$517,280	\$3,607,477	\$2,468,480	\$6,075,937	DP&L Estimate
13	Maintenance Labor (DP&L only)	-	-	\$540,831	\$541,419	\$543,040	\$543,982	\$544,953	\$545,957	\$546,993	\$548,062	\$5,975,237	\$3,903,794	\$9,879,031	DP&L Estimate
14	Total CIS O&M Costs	\$187,691	\$125,918	\$1,341,239	\$1,188,105	\$1,460,452	\$1,452,142	\$1,463,888	\$1,465,690	\$1,467,551	\$1,469,473	\$11,636,148	\$7,012,324	\$18,647,472	Sum of lines 9-13
15	Annual Systems Savings														
16	Annual Manframe O&M	-	-	-	\$1,558,765	\$1,614,265	\$1,675,827	\$1,741,813	\$1,812,826	\$1,888,714	\$1,970,571	\$12,260,582	\$18,510,180	\$30,779,761	See DP&L IT Budget Estimate (2008 O&M Manframe Budget tab and Manframe O&M Service tab)
17	Total Annual Systems Savings	-	-	-	\$1,558,765	\$1,614,265	\$1,675,827	\$1,741,813	\$1,812,826	\$1,888,714	\$1,970,571	\$12,260,582	\$18,510,180	\$30,779,761	Line 16

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSQ
BOOK II - Customer Conservation and Energy Management
Information Technology - eServices Summary

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Line No.	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr. Total Sum (B)-(K) (M)	Years 11-13 2020-2027 (N)	Grand Total (L)+(M) (O)	Source
1	Summary of eServices Capital Costs														
2	Solution Implementation Costs	\$316,658	\$782,814	\$538,985	-	-	-	-	-	-	-	\$1,618,557	-	\$1,618,557	See DP&L IT Budget Estimate; eServices Estimate Package
3	Labor Expenses	\$39,582	\$95,364	\$67,373	-	-	-	-	-	-	-	\$202,320	-	\$202,320	DP&L Estimate
4	Hardware Purchases	\$211,385	-	-	-	-	-	-	-	-	-	\$211,385	-	\$211,385	DP&L Estimate
5	Software Purchases	\$88,498	-	-	-	-	-	-	-	-	-	\$88,498	-	\$88,498	DP&L Estimate
6	Software Maintenance	-	\$15,199	\$15,210	-	-	-	-	-	-	-	\$30,409	-	\$30,409	DP&L Estimate
7	Total eServices Capital Costs	\$655,124	\$873,477	\$621,568	-	-	-	-	-	-	-	\$2,151,169	-	\$2,151,169	Sum of Lines 2-6
8	Summary of eServices O&M Costs														
9	Solution Implementation Costs	\$2,754	-	\$2,858	-	-	-	-	-	-	-	\$5,411	-	\$5,411	See DP&L IT Budget Estimate
10	Labor Expenses	\$344	-	\$332	-	-	-	-	-	-	-	\$676	-	\$676	DP&L Estimate
11	Hardware Maintenance	-	\$28,641	\$30,583	\$30,650	\$30,722	\$30,686	\$30,722	\$30,760	\$30,799	\$30,840	\$275,298	\$147,167	\$422,465	DP&L Estimate
12	Software Maintenance	-	-	-	\$15,381	\$15,398	\$15,416	\$15,435	\$15,454	\$15,473	\$15,494	\$108,051	\$73,935	\$181,987	DP&L Estimate
13	Maintenance Labor (DP&L only)	-	-	\$135,208	\$270,710	\$271,013	\$271,327	\$271,651	\$271,966	\$272,331	\$272,687	\$2,038,913	\$1,301,265	\$3,339,178	DP&L Estimate
14	Total eServices O&M Costs	\$3,098	\$29,641	\$168,780	\$316,707	\$317,062	\$317,429	\$317,808	\$318,200	\$318,604	\$319,021	\$2,426,350	\$1,522,367	\$3,948,717	Sum of lines 9-13

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Information Technology - MDM Summary

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Line No.	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	<u>Summary of MDM Capital Costs</u>														
2	Solution Implementation Costs	\$1,455,398	\$1,674,683	\$1,252,051	-	-	-	-	-	-	-	\$4,583,143	-	\$4,583,143	See DP&L IT Budget Estimate; Meter Data Management & Load Management Estimate Package
3	Labor Expenses	\$182,050	\$234,335	\$158,508	-	-	-	-	-	-	-	\$572,893	-	\$572,893	DP&L Estimate
4	Hardware Purchases	\$905,803	-	-	-	-	-	-	-	-	-	\$905,803	-	\$905,803	DP&L Estimate
5	Software Purchases	\$1,374,204	-	-	-	-	-	-	-	-	-	\$1,374,204	-	\$1,374,204	DP&L Estimate
6	Software Maintenance	-	\$236,007	\$236,183	-	-	-	-	-	-	-	\$472,181	-	\$472,181	DP&L Estimate
7	Total MDM Capital Costs	\$3,818,454	\$2,345,026	\$1,644,752	-	-	-	-	-	-	-	\$7,906,232	-	\$7,906,232	Sum of lines 2-6
8	<u>Summary of MDM O&M Costs</u>														
9	Solution Implementation Costs	\$14,780	-	\$79,634	-	-	-	-	-	-	-	\$94,414	-	\$94,414	See DP&L IT Budget Estimate
10	Labor Expenses	\$1,847	-	\$9,854	-	-	-	-	-	-	-	\$11,802	-	\$11,802	DP&L Estimate
11	Hardware Maintenance	-	\$127,015	\$131,049	\$131,192	\$131,339	\$131,491	\$131,648	\$131,810	\$131,978	\$132,151	\$1,179,675	\$630,623	\$1,810,298	DP&L Estimate
12	Software Maintenance	-	-	-	\$238,840	\$238,106	\$239,365	\$239,670	\$239,966	\$240,270	\$240,585	\$1,677,823	\$1,146,070	\$2,825,893	DP&L Estimate
13	Maintenance Labor (DP&L only)	-	-	\$338,019	\$338,387	\$338,767	\$339,159	\$339,564	\$339,982	\$340,414	\$340,859	\$2,715,151	\$1,626,581	\$4,341,732	DP&L Estimate
14	Total MDM O&M Costs	\$16,627	\$127,015	\$558,657	\$708,419	\$708,214	\$710,035	\$710,883	\$711,758	\$712,662	\$713,595	\$5,678,884	\$3,405,274	\$9,084,158	Sum of lines 9-13

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Information Technology - LMS Summary

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Line No.	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1 Summary of LMS Capital Costs															
2	Solution Implementation Costs	\$108,492	\$550,209	-	-	-	-	-	-	-	-	\$748,701	-	\$748,701	DP&L Estimate
3	Labor Expenses	\$24,812	\$68,776	-	-	-	-	-	-	-	-	\$93,588	-	\$93,588	DP&L Estimate
4	Hardware Purchases	\$58,999	-	-	-	-	-	-	-	-	-	\$58,999	-	\$58,999	DP&L Estimate
5	Software Purchases	\$117,988	-	-	-	-	-	-	-	-	-	\$117,988	-	\$117,988	DP&L Estimate
6	Software Maintenance	-	\$20,265	-	-	-	-	-	-	-	-	\$20,265	-	\$20,265	DP&L Estimate
7	Total LMS Capital Costs	\$400,301	\$639,250	-	-	-	-	-	-	-	-	\$1,039,550	-	\$1,039,550	Sum of lines 2-6
8 Summary of LMS O&M Costs															
9	Solution Implementation Costs	\$6,397	\$14,925	-	-	-	-	-	-	-	-	\$21,322	-	\$21,322	DP&L Estimate
10	Labor Expenses	\$800	\$1,866	-	-	-	-	-	-	-	-	\$2,665	-	\$2,665	DP&L Estimate
11	Hardware Maintenance	-	\$8,273	\$8,530	\$8,545	\$8,555	\$8,565	\$8,575	\$8,585	\$8,596	\$8,608	\$76,837	\$41,075	\$117,913	DP&L Estimate
12	Software Maintenance	-	-	\$20,486	\$20,508	\$20,531	\$20,555	\$20,580	\$20,605	\$20,631	\$20,658	\$164,555	\$98,581	\$263,135	DP&L Estimate
13	Maintenance Labor (DP&L only)	-	\$65,523	\$67,604	\$67,677	\$67,763	\$67,832	\$67,913	\$67,996	\$68,063	\$68,172	\$608,553	\$325,319	\$933,889	DP&L Estimate
14	Total LMS O&M Costs	\$7,197	\$90,586	\$96,626	\$96,731	\$96,839	\$96,952	\$97,067	\$97,187	\$97,310	\$97,438	\$873,932	\$454,972	\$1,338,904	Sum of lines 9-13

See DP&L IT Budget Estimate, Meter Data Management & Load Management Estimate Package

See DP&L IT Budget Estimate

THE DAYTON POWER AND LIGHT COMPANY
Case No. DB-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Information Technology - OMS Summary

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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(L) (M)	Years 11-16 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	Summary of OMS Capital Costs														
2	Solution Implementation Costs	\$1,761,824	\$4,589,345	-	-	-	-	-	-	-	-	\$6,351,169	-	\$6,351,169	DP&L Estimate
3	Labor Expenses	\$220,228	\$573,668	-	-	-	-	-	-	-	-	\$793,896	-	\$793,896	DP&L Estimate
4	Hardware Purchases	\$206,755	-	-	-	-	-	-	-	-	-	\$206,755	-	\$206,755	DP&L Estimate
5	Software Purchases	\$943,983	-	-	-	-	-	-	-	-	-	\$943,983	-	\$943,983	DP&L Estimate
6	Software Maintenance	-	\$162,121	-	-	-	-	-	-	-	-	\$162,121	-	\$162,121	DP&L Estimate
7	Total OMS Capital Costs	\$3,131,790	\$5,325,134	-	-	-	-	-	-	-	-	\$8,458,923	-	\$8,458,923	Sum of lines 2-6
8	Summary of OMS O&M Costs														
9	Solution Implementation Costs	\$43,775	\$146,819	-	-	-	-	-	-	-	-	\$190,594	-	\$190,594	DP&L Estimate
10	Labor Expenses	\$5,472	\$18,352	-	-	-	-	-	-	-	-	\$23,824	-	\$23,824	DP&L Estimate
11	Hardware Maintenance	-	\$28,852	\$29,768	\$29,801	\$29,834	\$29,869	\$29,904	\$29,941	\$29,979	\$30,018	\$267,965	\$143,247	\$411,212	DP&L Estimate
12	Software Maintenance	-	-	\$163,888	\$164,066	\$164,251	\$164,441	\$164,637	\$164,840	\$165,049	\$165,265	\$1,316,437	\$788,645	\$2,105,082	DP&L Estimate
13	Maintenance Labor (DP&L only)	-	\$393,136	\$403,823	\$406,084	\$408,520	\$408,981	\$407,477	\$407,378	\$408,498	\$409,031	\$3,851,317	\$1,951,897	\$5,803,214	DP&L Estimate
14	Total OMS O&M Costs	\$49,247	\$587,160	\$596,279	\$599,931	\$600,605	\$601,300	\$602,018	\$602,759	\$603,524	\$604,315	\$5,450,138	\$2,883,769	\$8,333,927	Sum of lines 9-13
15	AMI OMS Allocation	\$49,247	\$411,012	\$419,495	\$419,952	\$420,423	\$420,910	\$421,413	\$421,931	\$422,487	\$423,020	\$3,829,871	\$2,018,852	\$5,848,523	70% of Line 14
16	Smart Grid OMS Allocation	-	\$176,148	\$179,784	\$179,979	\$180,161	\$180,390	\$180,605	\$180,828	\$181,057	\$181,294	\$1,920,267	\$957,235	\$2,577,502	30% of Line 14

See DP&L IT Budget
Estimate, OMS
Estimate Package

See DP&L IT Budget
Estimate

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1064-EL-SSO
BOOK II - Customer Conservation and Energy Management
Information Technology - DMS Summary

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Line No.	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (M)	Years 11-16 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	Summary of DMS Capital Costs														
2	Solution Implementation Costs	\$1,019,482	\$3,055,076	\$816,286	\$107,881	\$107,957	-	-	-	-	-	\$5,206,702	-	\$5,206,702	See DP&L IT Budget Estimate; DMS Estimate Package
3	Labor Expenses	\$127,437	\$381,884	\$114,536	\$13,485	\$13,496	-	-	-	-	-	\$650,838	-	\$650,838	DP&L Estimate
4	Hardware Purchases	\$559,748	-	-	-	-	-	-	-	-	-	\$559,748	-	\$559,748	DP&L Estimate
5	Software Purchases	\$884,984	-	-	-	-	-	-	-	-	-	\$884,984	-	\$884,984	DP&L Estimate
6	Software Maintenance	-	\$151,988	\$152,102	\$152,219	-	-	-	-	-	-	\$456,308	-	\$456,308	DP&L Estimate
7	Total DMS Capital Costs	\$2,581,652	\$3,588,949	\$1,182,923	\$273,585	\$121,463	-	-	-	-	-	\$7,758,581	-	\$7,758,581	Sum of lines 2-6
8	Summary of DMS O&M Costs														
9	Solution Implementation Costs	\$35,816	\$120,125	-	-	-	-	-	-	-	-	\$155,941	-	\$155,941	See DP&L IT Budget Estimate
10	Labor Expenses	\$4,477	\$15,016	-	-	-	-	-	-	-	-	\$19,493	-	\$19,493	DP&L Estimate
11	Hardware Maintenance	-	\$78,490	\$80,983	\$81,071	\$81,162	\$81,256	\$81,353	\$81,453	\$81,557	\$81,664	\$728,990	\$431,184	\$1,160,174	DP&L Estimate
12	Software Maintenance	-	-	-	-	\$153,985	\$154,163	\$154,347	\$154,537	\$154,733	\$154,938	\$928,702	\$818,062	\$1,744,765	DP&L Estimate
13	Maintenance Labor (DP&L only)	-	-	\$338,019	\$338,387	\$338,767	\$339,159	\$339,564	\$339,982	\$340,414	\$340,859	\$2,715,151	\$1,789,737	\$4,514,888	DP&L Estimate
14	Total DMS O&M Costs	\$40,293	\$213,631	\$419,002	\$419,458	\$673,914	\$574,578	\$675,264	\$575,973	\$576,704	\$577,459	\$4,546,277	\$3,048,984	\$7,595,260	Sum of lines 9-13

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Information Technology - MWM System Summary

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Page 1 of 1
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Work Paper Reference No(s): n/a

Line No.	Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr. Total Sum (B)-(K)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M)	Source
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	
1	Summary of MWM Capital Costs														
2	Solution Implementation Costs	-	-	-	\$3,719,208	\$1,589,812	-	-	-	-	-	\$5,308,819	-	\$5,308,819	DP&L Estimate
3	Labor Expenses	-	-	-	\$484,901	\$198,702	-	-	-	-	-	\$683,602	-	\$683,602	DP&L Estimate
4	Hardware Purchases	-	-	-	\$657,131	-	-	-	-	-	-	\$657,131	-	\$657,131	DP&L Estimate
5	Software Purchases	-	-	-	\$1,445,454	-	-	-	-	-	-	\$1,445,454	-	\$1,445,454	DP&L Estimate
6	Software Maintenance	-	-	-	-	\$243,743	-	-	-	-	-	\$243,743	-	\$243,743	DP&L Estimate
7	Total MWM Capital Costs	-	-	-	\$6,285,692	\$2,032,057	-	-	-	-	-	\$8,318,749	-	\$8,318,749	Sum of lines 2-6
8	Summary of MWM O&M Costs														
9	Solution Implementation Costs	-	-	-	\$80,885	\$110,841	-	-	-	-	-	\$171,505	-	\$171,505	DP&L Estimate
10	Labor Expenses	-	-	-	\$7,583	\$13,855	-	-	-	-	-	\$21,438	-	\$21,438	DP&L Estimate
11	Hardware Maintenance	-	-	-	-	\$93,339	\$93,447	\$93,559	\$93,674	\$93,793	\$93,910	\$661,729	\$495,876	\$1,057,604	DP&L Estimate
12	Software Maintenance	-	-	-	-	-	\$246,861	\$246,956	\$247,260	\$247,574	\$247,888	\$1,238,348	\$1,308,900	\$2,545,247	DP&L Estimate
13	Maintenance Labor (DP&L only)	-	-	-	-	\$101,830	\$203,495	\$203,738	\$203,989	\$204,248	\$204,510	\$1,121,617	\$1,079,842	\$2,201,459	DP&L Estimate
14	Total MWM O&M Costs	-	-	-	\$63,248	\$319,665	\$543,804	\$544,253	\$544,923	\$545,615	\$546,329	\$3,112,838	\$2,884,618	\$5,997,254	Sum of lines 9-13

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Information Technology - SOA Summary

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Page 1 of 1
Witness Responsible:
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Line No.	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	Summary of SOA Capital Costs														
2	Solution Implementation Costs	\$319,511	\$281,685	\$529,313	\$706,294	\$647,960	\$363,717	-	-	-	-	\$2,838,471	-	\$2,838,471	DP&L Estimate
3	Labor Expenses	\$39,939	\$35,211	\$66,164	\$88,287	\$80,994	\$44,215	-	-	-	-	\$354,809	-	\$354,809	DP&L Estimate
4	Hardware Purchases	\$477,352	-	-	-	-	-	-	-	-	-	\$477,352	-	\$477,352	DP&L Estimate
5	Software Purchases	\$825,985	-	-	-	-	-	-	-	-	-	\$825,985	-	\$825,985	DP&L Estimate
6	Software Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	DP&L Estimate
7	Total SOA Capital Costs	\$1,862,787	\$316,885	\$595,478	\$794,581	\$728,944	\$397,932	-	-	-	-	\$4,496,617	-	\$4,496,617	Sum of lines 2-6
8	Summary of SOA O&M Costs														
9	Solution Implementation Costs	\$26,942	\$69,494	-	-	-	-	-	-	-	-	\$95,436	-	\$95,436	DP&L Estimate
10	Labor Expenses	\$3,243	\$8,687	-	-	-	-	-	-	-	-	\$11,929	-	\$11,929	DP&L Estimate
11	Hardware Maintenance	-	\$66,936	\$69,062	\$89,137	\$69,215	\$89,295	\$66,378	\$69,463	\$69,551	\$69,643	\$621,681	\$332,334	\$954,015	DP&L Estimate
12	Software Maintenance	-	\$135,988	\$143,402	\$143,558	\$143,719	\$143,886	\$144,057	\$144,235	\$144,418	\$144,607	\$1,290,870	\$690,065	\$1,980,934	DP&L Estimate
13	Maintenance Labor (DP&L only)	-	-	-	\$270,710	\$271,013	\$271,327	\$271,651	\$271,986	\$272,331	\$272,687	\$1,901,705	\$1,301,266	\$3,202,970	DP&L Estimate
14	Total SOA O&M Costs	\$28,185	\$284,104	\$212,464	\$483,405	\$483,948	\$484,508	\$485,086	\$485,684	\$486,300	\$486,937	\$3,921,622	\$2,323,663	\$6,245,285	Sum of lines 9-13

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1084-EL-SSO
BOOK II - Customer Conservation and Energy Management
Information Technology - Infrastructure Summary

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Page 1 of 1
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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1 Summary of Infrastructure Capital Costs															
2	Solution Implementation Costs	\$1,951,089	\$958,326	-	-	-	-	-	-	-	-	\$2,809,395	-	\$2,809,395	See DP&L IT Budget Estimate; Infrastructure Estimate Package
3	Labor Expenses	\$231,394	\$116,791	-	-	-	-	-	-	-	-	\$361,174	-	\$361,174	DP&L Estimate
4	Hardware Purchases	\$2,450,513	-	-	-	-	-	-	-	-	-	\$2,450,513	-	\$2,450,513	DP&L Estimate
5	Software Purchases	\$1,618,931	-	-	-	-	-	-	-	-	-	\$1,618,931	-	\$1,618,931	DP&L Estimate
6	Software Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	DP&L Estimate
7	Total Infrastructure Capital Costs	\$6,151,898	\$1,078,116	-	-	-	-	-	-	-	-	\$7,230,014	-	\$7,230,014	Sum of lines 2-6
8 Summary of Infrastructure O&M Costs															
9	Solution Implementation Costs	\$26,472	\$71,700	-	-	-	-	-	-	-	-	\$98,171	-	\$98,171	See DP&L IT Budget Estimate
10	Labor Expenses	\$3,309	\$8,982	-	-	-	-	-	-	-	-	\$12,271	-	\$12,271	DP&L Estimate
11	Hardware Maintenance	-	\$343,621	\$354,635	\$354,921	\$355,318	\$355,730	\$355,155	\$356,594	\$357,046	\$357,514	\$3,191,434	\$1,708,056	\$4,897,489	DP&L Estimate
12	Software Maintenance	-	\$272,416	\$281,058	\$281,374	\$281,690	\$282,016	\$282,363	\$282,700	\$283,059	\$283,430	\$2,530,105	\$1,352,527	\$3,882,631	DP&L Estimate
13	Maintenance Labor (DP&L only)	-	-	\$1,081,661	\$2,030,322	\$2,032,501	\$2,034,654	\$2,037,383	\$2,039,892	\$2,042,482	\$2,045,156	\$15,344,451	\$8,758,825	\$25,103,276	DP&L Estimate
14	Total Infrastructure O&M Costs	\$29,780	\$698,699	\$1,717,264	\$2,666,616	\$2,669,610	\$2,672,700	\$2,675,691	\$2,678,166	\$2,682,567	\$2,686,099	\$21,176,433	\$12,617,407	\$33,693,839	Sum of lines 9-13

THE DAYTON POWER AND LIGHT COMPANY
Case No. 03-1094-EL-SSD
BOOK II - Customer Conservation and Energy Management
AMI Meter O&M

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Page 1 of 1
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Line No.	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	AMI related Call Center Volume	13,020	104,160	143,220	-	-	-	-	-	-	-	-	-	-	DP&L Estimate
2	Average Cost per Call	\$1.76	\$1.76	\$1.76	\$1.76	\$1.76	\$1.76	\$1.76	\$1.76	\$1.76	\$1.76	\$1.76	-	\$458,304	DP&L Estimate
3	Total Call Center Costs	\$22,915	\$183,322	\$252,067	-	-	-	-	-	-	-	\$458,304	-	\$458,304	line 1 + line 2
4	Additional Engineers	2	2	2	2	2	2	2	2	2	2	-	-	-	DP&L Estimate
5	Average Engineering Salary (Loaded)	\$105,705	\$108,876	\$112,142	\$115,507	\$118,972	\$122,541	\$126,217	\$130,004	\$133,904	\$137,921	-	-	-	DP&L Estimate
6	Total Engineering Costs	\$211,410	\$217,752	\$224,285	\$231,013	\$237,944	\$245,082	\$252,435	\$260,008	\$267,808	\$275,842	\$2,423,579	\$2,495,989	\$4,919,548	line 4 + line 5
7	Number of Additional Telecom and System Operation Techs	3	3	3	3	3	3	3	3	3	1	-	-	-	DP&L Estimate
8	Average Technician Salary (Loaded)	\$117,172	\$120,667	\$124,308	\$128,037	\$131,878	\$135,835	\$139,910	\$144,107	\$148,430	\$152,883	-	-	-	DP&L Estimate
9	Total System Tech Costs	\$351,516	\$362,062	\$372,924	\$384,111	\$395,635	\$407,504	\$419,729	\$432,321	\$445,430	\$452,883	\$3,427,115	\$1,383,369	\$4,810,484	line 7 + line 8
10	Telecommunication Equipment Maintenance Cost	-	-	\$296,641	\$296,641	\$296,641	\$296,641	\$296,641	\$296,641	\$296,641	\$296,641	\$2,373,127	\$2,316,071	\$4,689,197	Approximately 6% of cumulative AMI Infrastructure Costs (equipment maintenance expenses only)
11	Total AMI Meter O&M Cost	\$585,842	\$753,136	\$1,145,917	\$911,766	\$930,219	\$949,227	\$968,804	\$988,969	\$712,879	\$725,366	\$8,662,125	\$6,195,409	\$14,877,533	line 3 + line 6 + line 9 + line 10

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
AMI Communications O&M

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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	Backbone Telecommunication Maintenance Cost	-	-	\$423,508	\$423,508	\$423,508	\$423,508	\$423,508	\$423,508	\$423,508	\$423,508	\$3,388,064	\$3,388,064	\$6,776,128	5% of AMI Communications Hardware and Software Capital
2	Total O&M Cost	-	-	\$423,508	\$423,508	\$423,508	\$423,508	\$423,508	\$423,508	\$423,508	\$423,508	\$3,388,064	\$3,388,064	\$6,776,128	Line 1

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Line No.	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Savings (M)	Years 11-18 2020-2027 (N)	Grand Total (L)+(M)+(N)	Source
1	Baseline meter reading expense	\$3,452,189	\$3,546,930	\$3,765,908	\$3,864,068	\$3,977,514	\$4,064,944	\$4,214,858	\$4,338,862	\$4,466,182	\$4,597,589				DP&L Estimate
2	Average % of meters installed during year	3%	25%	73%	100%	100%	100%	100%	100%	100%	100%				DP&L annual meter deployment plan
3	Reduction in meter reading expense	\$86,305	\$911,735	\$2,721,584	\$3,864,068	\$3,977,514	\$4,064,944	\$4,214,858	\$4,338,862	\$4,466,182	\$4,597,589	\$33,272,489	\$40,798,372	\$74,070,871	line 1 * line 2
4	Average revenue per residential customer	\$1,073	\$1,072	\$1,073	\$1,073	\$1,073	\$1,073	\$1,073	\$1,073	\$1,073	\$1,073				2006 residential revenue per residential customer
5	Improvement factor - reduction in energy theft due to AMI	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%				DP&L Estimate
6	Average # of meters installed	13,020	130,200	377,580	520,800	520,800	520,800	520,800	520,800	520,800	520,800				DP&L Estimate
7	Reduction in energy theft	\$68,974	\$689,741	\$2,026,349	\$2,794,894	\$2,794,894	\$2,794,894	\$2,794,894	\$2,794,894	\$2,794,894	\$2,794,894	\$22,359,710	\$22,359,710	\$44,719,421	line 4 * line 5 * line 6
8	Total Cost of Unrecovered Accounts	\$307,000	\$307,000	\$307,000	\$307,000	\$307,000	\$307,000	\$307,000	\$307,000	\$307,000	\$307,000				DP&L Estimate
9	Reduction in Unrecovered Accounts	\$1,675	\$18,750	\$222,575	\$307,000	\$307,000	\$307,000	\$307,000	\$307,000	\$307,000	\$307,000	\$2,456,000	\$2,456,000	\$4,912,000	line 2 * line 9
10	Outage Crew Cost	\$133,756	\$142,816	\$147,206	\$151,622	\$156,171	\$160,856	\$165,662	\$170,652	\$175,772	\$181,045				DP&L Estimate
11	Reduction on no outage calls	\$3,468	\$35,720	\$106,724	\$151,622	\$156,171	\$160,856	\$165,662	\$170,652	\$175,772	\$181,045	\$1,307,723	\$1,658,210	\$2,965,933	line 2 * line 10
12	Potential Workman's Comp Savings	\$950,000	\$950,000	\$950,000	\$950,000	\$950,000	\$950,000	\$950,000	\$950,000	\$950,000	\$950,000				DP&L Estimate
13	Reduction in Worker's Comp Costs	\$4,750	\$47,500	\$253,750	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$2,800,000	\$2,800,000	\$5,600,000	line 2 * line 12
14	Additional Revenue due to elimination of electro-mechanical meters	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%				DP&L Estimate
15	Additional Revenue with improved bill accuracy of new meters	\$55,899	\$558,993	\$1,621,079	\$2,235,971	\$2,235,971	\$2,235,971	\$2,235,971	\$2,235,971	\$2,235,971	\$2,235,971	\$17,887,768	\$17,887,768	\$35,775,537	line 4 * line 5 * line 14
16	Decrease in Billing Preprocessing (significant reduction in execution processing costs)	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000				DP&L Estimate
17	Reduction of Bill Processing (Lower Escrow)	\$2,125	\$21,250	\$61,625	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$680,000	\$680,000	\$1,360,000	line 2 * line 16
18	Reduction in Field Service Costs (Lower Field Service Orders)	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000				DP&L Estimate
19	Reduction of Field Service	\$27,500	\$275,000	\$797,500	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$8,800,000	\$8,800,000	\$17,600,000	line 2 * line 18
20	Reduction in Annual Capital Costs	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000				DP&L Estimate
21	Deferral of Capital Costs	\$525	\$5,250	\$16,125	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$200,000	\$200,000	\$400,000	line 2 * line 20
22	Reduction in Call Center Costs (Better Outage Information and Lower Billing Inquiries)	\$206,000	\$206,000	\$206,000	\$206,000	\$206,000	\$206,000	\$206,000	\$206,000	\$206,000	\$206,000				DP&L Estimate
23	Reduction of Call Center Costs (Fewer Calls and Shorter calls)	\$5,150	\$51,500	\$149,850	\$206,000	\$206,000	\$206,000	\$206,000	\$206,000	\$206,000	\$206,000	\$1,648,000	\$1,648,000	\$3,296,000	line 2 * line 22
24	Potential decrease in annual Load Research	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000				DP&L Estimate
25	Reduction of load research costs	\$2,500	\$25,000	\$72,500	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$800,000	\$800,000	\$1,600,000	line 2 * line 24
26	Reduction of Costs to deliver power to unoccupied premises	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000				DP&L Estimate
27	Reduction of costs from power delivered to unoccupied premises	\$875	\$8,750	\$26,375	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$280,000	\$280,000	\$560,000	line 2 * line 26
28	Reduction in costs to test new meter shipments as they arrive in DP&L	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000				DP&L Estimate
29	Reduction of meter testing cost for new meter shipments	\$500	\$5,000	\$14,500	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$160,000	\$160,000	\$320,000	line 2 * line 28
30	Total AMI Benefits	\$271,247	\$2,742,186	\$8,061,036	\$11,274,026	\$11,382,020	\$11,514,135	\$11,638,275	\$11,769,349	\$11,900,659	\$12,027,547	\$82,651,701	\$106,628,061	\$189,279,762	line 3 + line 7 + line 9 + line 11 + line 13 + line 15 + line 17 + line 19 + line 21 + line 23 + line 25 + line 27 + line 29

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
AMI Communications Benefits

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Page 1 of 1
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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (N) (O)	Source
1	Completion of Core Telecom Rollout (End of Year)	0%	13%	44%	81%	100%	100%	100%	100%	100%	100%				DP&L Rollout Schedule
2	Existing 2 Way Radio System and Microwave System Maintenance Cost	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$760,667	\$824,000	\$1,584,667	DP&L Estimate
3	Reduction in Existing Two Way Radio System and Existing Microwave System Maintenance	-	\$13,328	\$45,563	\$63,755	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$760,667	\$824,000	\$1,584,667	line 1 + line 2
4	Total AMI Communication Benefits	-	\$13,328	\$45,563	\$63,755	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$760,667	\$824,000	\$1,584,667	line 3

THE DAYTON POWER AND LIGHT COMPANY
CASE NO. 10-1064-EL-SSO
BOOK II - Customer Conservation and Energy Management
Social Benefits

UPDATED

WPH-1.9
Page 1 of 1
Witness Responsible
Kevin Hall

Type of Filing: Original
Work Paper Reference No(s): WPH-1.10

Line No.	Description	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000	3001	3002	3003	3004	3005	3006	3007	3008	3009	3010	3011	3012	3013	3014	3015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THE DAYTON POWER AND LIGHT COMPANY
CASE NO. 08-1094-EL-850
BOOK II - Customer Conservation and Energy Management
Energy & Demand Valuations

UPDATED

WPH-1.10
Page 1 of 2
Witness Responsible:
Kevin Hall

Type of Filing: Original
Work Paper Reference No(s): n/a

Line No.	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr. Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	Improved Utilization Efficiency														
2	Energy Values														
3	Customer Energy Savings from Usage Feedback (Display)	\$0	\$5,566	\$56,779	\$51,843	\$115,597	\$114,155	\$114,706	\$115,264	\$115,826	\$115,392	\$846,948	\$945,424	\$1,792,372	DP&L Energy Efficiency & Demand Response Plan
4	Average Value per Avoided kWh	\$63.44	\$62.78	\$65.20	\$67.38	\$69.54	\$71.77	\$74.07	\$76.44	\$78.89	\$81.42	\$62,443,128	\$67,045,205	\$149,511,337	Commercial Operations
5	Total Home Energy Display Energy Value		\$338,133	\$3,902,871	\$6,186,351	\$7,686,535	\$8,192,904	\$8,466,273	\$8,610,760	\$8,737,513	\$8,876,537	\$62,443,128	\$67,045,205	\$149,511,337	Line 3 + Line 4
6	Home Energy Displays Energy Value		\$338,133	\$3,902,871	\$6,186,351	\$7,686,535	\$8,192,904	\$8,466,273	\$8,610,760	\$8,737,513	\$8,876,537	\$62,443,128	\$67,045,205	\$149,511,337	Line 5
7	Total Energy Value from Improved Utilization Efficiency		\$338,133	\$3,902,871	\$6,186,351	\$7,686,535	\$8,192,904	\$8,466,273	\$8,610,760	\$8,737,513	\$8,876,537	\$62,443,128	\$67,045,205	\$149,511,337	Line 6
8	Capacity Value														
9	Home Energy Display Capacity Savings														
10	Biddable Demand														
11	Average Value per Avoided MW	\$52,622	\$49,927	\$48,667	\$50,712	\$50,067	\$50,356	\$100,275	\$103,283	\$106,381	\$109,573	\$806,883	\$880,263	\$1,787,146	Commercial Operations
12	Total Home Energy Display Demand Value														
13	Home Energy Displays Capacity Value														
14	Total Capacity Value from Improved Utilization Efficiency														
15	Summary														
16	Total Energy and Capacity Value of Home Energy Displays		\$338,133	\$3,902,871	\$6,186,351	\$7,686,535	\$8,192,904	\$8,466,273	\$8,610,760	\$8,737,513	\$8,876,537	\$62,443,128	\$67,045,205	\$149,511,337	Line 13 + Line 6
17	Total Energy and Capacity Value of Improved Utilization Efficiency		\$338,133	\$3,902,871	\$6,186,351	\$7,686,535	\$8,192,904	\$8,466,273	\$8,610,760	\$8,737,513	\$8,876,537	\$62,443,128	\$67,045,205	\$149,511,337	Line 16
18	Residential Response Products														
19	Energy Value														
20	Residential Direct Load Control Energy Savings														
21	Average Value per Avoided kWh	\$58.20	\$57.75	\$57.44	\$58.96	\$60.27	\$61.57	\$62.87	\$64.17	\$65.47	\$66.77	\$53,919	\$57,769	\$111,688	DP&L Energy Efficiency & Demand Response Plan
22	Total Residential Direct Load Control Energy Value		\$34,399	\$185,373	\$345,806	\$516,078	\$686,516	\$857,145	\$1,027,774	\$1,198,403	\$1,369,032	\$6,591,593	\$7,041,841	\$13,633,434	Commercial Operations
23	Non-Residential Direct Load Control Energy Savings														
24	Average Value per Avoided kWh	\$68.30	\$67.75	\$67.44	\$69.26	\$70.57	\$71.87	\$73.17	\$74.47	\$75.77	\$77.07	\$64,399	\$68,249	\$132,648	Commercial Operations
25	Total Non-Residential Direct Load Control Energy Value		\$13,208	\$43,865	\$77,086	\$112,750	\$152,178	\$191,606	\$231,034	\$270,462	\$309,890	\$1,443,863	\$1,545,499	\$2,989,362	Commercial Operations
26	Direct Load Control Energy Value		\$47,607	\$229,238	\$422,892	\$628,828	\$838,693	\$1,048,780	\$1,258,808	\$1,468,865	\$1,678,922	\$8,035,456	\$8,587,340	\$16,622,802	Commercial Operations
27	Total Energy Value from Demand Response		\$47,607	\$229,238	\$422,892	\$628,828	\$838,693	\$1,048,780	\$1,258,808	\$1,468,865	\$1,678,922	\$8,035,456	\$8,587,340	\$16,622,802	Line 25
28	Capacity Value														
29	Residential Time-of-Use Capacity Savings														
30	Biddable Demand														
31	Average Value per Avoided MW	\$52,622	\$49,927	\$48,667	\$50,712	\$50,067	\$50,356	\$100,275	\$103,283	\$106,381	\$109,573	\$806,883	\$880,263	\$1,787,146	Commercial Operations
32	Total Residential Time-of-Use Capacity Value		\$0	\$28,942	\$228,735	\$607,120	\$1,329,444	\$2,345,758	\$4,162,305	\$5,878,531	\$7,694,757	\$22,932,427	\$27,082,274	\$50,014,701	Commercial Operations
33	Non-Residential Direct Load Control Capacity Savings														
34	Average Value per Avoided MW	\$52,622	\$49,927	\$48,667	\$50,712	\$50,067	\$50,356	\$100,275	\$103,283	\$106,381	\$109,573	\$806,883	\$880,263	\$1,787,146	Commercial Operations
35	Total Non-Residential Direct Load Control Capacity Value		\$0	\$11,878	\$53,534	\$133,666	\$236,313	\$406,307	\$686,562	\$966,817	\$1,247,072	\$4,082,481	\$4,776,263	\$9,058,744	Commercial Operations
36	Residential Time-of-Use Capacity Savings														
37	Average Value per Avoided MW	\$52,622	\$49,927	\$48,667	\$50,712	\$50,067	\$50,356	\$100,275	\$103,283	\$106,381	\$109,573	\$806,883	\$880,263	\$1,787,146	Commercial Operations
38	Total Residential Time-of-Use Capacity Value		\$0	\$19,627	\$158,667	\$424,498	\$841,031	\$1,406,234	\$2,345,758	\$3,871,531	\$5,402,283	\$17,754,097	\$20,867,781	\$38,581,880	Commercial Operations
39	Biddable Demand														
40	Average Value per Avoided MW	\$52,622	\$49,927	\$48,667	\$50,712	\$50,067	\$50,356	\$100,275	\$103,283	\$106,381	\$109,573	\$806,883	\$880,263	\$1,787,146	Commercial Operations
41	Total Residential Time-of-Use Capacity Value		\$0	\$19,627	\$158,667	\$424,498	\$841,031	\$1,406,234	\$2,345,758	\$3,871,531	\$5,402,283	\$17,754,097	\$20,867,781	\$38,581,880	Commercial Operations
42	Residential Peak Time Relate Capacity Savings														
43	Biddable Demand														
44	Average Value per Avoided MW	\$52,622	\$49,927	\$48,667	\$50,712	\$50,067	\$50,356	\$100,275	\$103,283	\$106,381	\$109,573	\$806,883	\$880,263	\$1,787,146	Commercial Operations
45	Total Residential Peak Time Relate Capacity Value		\$0	\$11,878	\$53,534	\$133,666	\$236,313	\$406,307	\$686,562	\$966,817	\$1,247,072	\$4,082,481	\$4,776,263	\$9,058,744	Commercial Operations
46	Non-Residential Time-of-Use Capacity Savings														
47	Biddable Demand														
48	Average Value per Avoided MW	\$52,622	\$49,927	\$48,667	\$50,712	\$50,067	\$50,356	\$100,275	\$103,283	\$106,381	\$109,573	\$806,883	\$880,263	\$1,787,146	Commercial Operations
49	Total Non-Residential Time-of-Use Capacity Value		\$0	\$11,878	\$53,534	\$133,666	\$236,313	\$406,307	\$686,562	\$966,817	\$1,247,072	\$4,082,481	\$4,776,263	\$9,058,744	Commercial Operations

THE DAYTON POWER AND LIGHT COMPANY
CASE NO. 06-1064-EL-SSO
Customer Conservation and Energy Management - Energy & Demand Valuations

UPDATED

WPH-1.10
Page 2 of 2
Witness Responsible:
Kevin Hall

Type of Filing: Original
Work Paper Reference No(s): n/a

Line No.	Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr. Total Sum (B)-(K)	Years 11-19 2020-2027 (N)	Grand Total (L) + (M)	Source
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	
50	Third Party Outfitment, Capacity Savings														
51	Bidable Demand	6.0	15.0	27.0	45.0	72.0	78.0	78.0	92.0	92.0	107.0	\$406,883	\$980,263	\$1,387,146	North American Utility Demand Response Survey Results, Summit Blue, 2006, DP&L Estimate
52	Average Value per Avoided MW	\$59,822	\$48,627	\$48,697	\$48,697	\$59,822	\$59,822	\$59,822	\$59,822	\$59,822	\$59,822	\$59,822	\$59,822	\$59,822	Commercial Operations
53	Total Third Party Outfitment Capacity Value	\$316,732	\$748,505	\$1,314,069	\$2,132,040	\$4,240,544	\$4,634,796	\$4,634,796	\$5,284,384	\$5,284,384	\$5,284,384	\$27,814,509	\$58,201,537	\$86,016,043	line 51 + line 52
54	Direct Load Control Capacity Value											\$17,424,743	\$56,719,285	\$74,144,028	line 53 + line 37
55	Direct Load Control Capacity Value											\$17,424,743	\$56,719,285	\$74,144,028	line 54 + line 49
56	Third Party Outfitment Capacity Value	\$316,732	\$748,505	\$1,314,069	\$2,132,040	\$4,240,544	\$4,634,796	\$4,634,796	\$5,284,384	\$5,284,384	\$5,284,384	\$27,814,509	\$58,201,537	\$86,016,043	line 55
57	Total Capacity Value from Demand Response Products	\$316,732	\$748,505	\$1,314,069	\$2,132,040	\$4,240,544	\$4,634,796	\$4,634,796	\$5,284,384	\$5,284,384	\$5,284,384	\$27,814,509	\$58,201,537	\$86,016,043	sum of lines 54 - 56
58	Summary														
59	Total Energy and Capacity Value of Direct Load Control		\$102,311	\$411,536	\$1,165,568	\$2,248,585	\$2,248,585	\$2,248,585	\$2,248,585	\$2,248,585	\$2,248,585	\$11,658,874	\$116,608,874	\$128,257,459	line 28 + line 54
60	Total Energy and Capacity Value of Time-Based Pricing														line 55
61	Total Energy and Capacity Value of Third Party Outfitment														line 56
62	Total Energy and Capacity Value from Demand Response Products	\$315,732	\$748,505	\$1,314,069	\$2,132,040	\$4,240,544	\$4,634,796	\$4,634,796	\$5,284,384	\$5,284,384	\$5,284,384	\$27,814,509	\$58,201,537	\$86,016,043	sum of lines 59 - 61
63	Distribution Network Efficiency														
64	Energy														
65	DVC / Line Losses (MMWh)	2,066	17,137	43,193	49,304	66,392	121,127	146,896	172,160	197,628	223,112	\$1,067,808	\$1,821,710	\$2,889,518	DP&L Energy Efficiency & Demand Response Plan
66	Average Energy Value	\$69,711	\$82,899	\$95,444	\$97,165	\$97,165	\$97,165	\$97,165	\$97,165	\$97,165	\$97,165	\$97,165	\$97,165	\$97,165	Commercial Operations
67	Total Line Losses Energy Value	\$141,152	\$1,428,400	\$2,226,530	\$4,804,185	\$6,460,987	\$11,819,724	\$10,989,513	\$13,322,920	\$16,646,298	\$19,232,713	\$82,070,419	\$187,787,516	\$249,868,336	line 65 + line 66
68	Total Energy Value from Distribution Network Efficiency	\$131,732	\$1,278,460	\$2,226,530	\$4,804,185	\$6,460,987	\$11,819,724	\$10,989,513	\$13,322,920	\$16,646,298	\$19,232,713	\$82,070,419	\$187,787,516	\$249,868,336	line 67
69	Demand														
70	Dynamic Voltage Control, Capacity Savings	0.6	4.8	12.2	19.5	26.9	34.3	41.5	48.8	56.2	63.9	\$24,365,803	\$66,959,015	\$91,324,818	DP&L Energy Efficiency & Demand Response Plan
71	Bidable Demand	0.2	2.7	6.9	12.2	19.5	26.9	34.3	41.5	48.8	56.2	\$24,365,803	\$66,959,015	\$91,324,818	Commercial Operations - (Average previous 3 yrs)
72	Average Value per Avoided MW	\$62,522	\$48,927	\$48,927	\$48,927	\$62,522	\$62,522	\$62,522	\$62,522	\$62,522	\$62,522	\$62,522	\$62,522	\$62,522	Commercial Operations
73	Total DVC Capacity Value	\$10,524	\$134,803	\$287,135	\$740,698	\$1,691,097	\$2,545,076	\$2,545,076	\$2,545,076	\$2,545,076	\$2,545,076	\$24,365,803	\$66,959,015	\$91,324,818	line 71 + line 72
74	Total Capacity Value from Distribution Network Efficiency	\$10,524	\$134,803	\$287,135	\$740,698	\$1,691,097	\$2,545,076	\$2,545,076	\$2,545,076	\$2,545,076	\$2,545,076	\$24,365,803	\$66,959,015	\$91,324,818	line 73
75	Summary														
76	Total Energy and Capacity Value from Distribution Network Efficiency	\$142,277	\$1,214,263	\$3,113,665	\$5,542,172	\$8,152,084	\$14,364,800	\$13,534,589	\$15,868,000	\$19,191,374	\$21,777,789	\$106,496,222	\$234,744,031	\$346,068,849	line 68 + line 74
77	Total														
78	Total Energy and Capacity Value of Improved Utilization Efficiency														line 17
79	Total Energy and Capacity Value from Demand Response Products	\$315,732	\$748,505	\$1,314,069	\$2,132,040	\$4,240,544	\$4,634,796	\$4,634,796	\$5,284,384	\$5,284,384	\$5,284,384	\$27,814,509	\$58,201,537	\$86,016,043	line 59
80	Total Energy and Capacity Value from Distribution Network Efficiency	\$142,277	\$1,214,263	\$3,113,665	\$5,542,172	\$8,152,084	\$14,364,800	\$13,534,589	\$15,868,000	\$19,191,374	\$21,777,789	\$106,496,222	\$234,744,031	\$346,068,849	line 76
81	Total Energy and Capacity Value from CCEM	\$458,009	\$2,403,012	\$3,942,261	\$10,978,256	\$12,404,168	\$28,729,600	\$28,069,179	\$35,059,374	\$44,455,400	\$53,555,573	\$234,992,444	\$469,993,562	\$692,037,692	sum of lines 78-80

[illegible]

UPDATED

WPB-1.1
Page 1 of 2
Witness Responsible:
Jeff Teuscher

Type of Filing: Original
Work Paper Reference No(s): n/a

Line No.	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr. Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	# of DASA Relay Engineers	2	2	2	2	2	2	2	2	2	2				DP&L Estimate
2	# of Design Engineers														DP&L Estimate
3	# of DA RTU/SCADA Engineers	1	1	1	1	1	1	1	1	1	1				DP&L Estimate
4	# of Incremental SCADA Engineers for DA	1	1	1	1	1	1	1	1	1	1				DP&L Estimate
5	Total Engineers	4	4	4	4	4	4	4	4	4	4				line 1 + line 2 + line 3 + line 4
6	Average Engineer Salary (Loaded)	\$105,705	\$108,876	\$112,142	\$116,507	\$118,972	\$122,541	\$125,217	\$130,004	\$133,904	\$137,921				DP&L Estimate
7	Total Engineering Cost	\$422,820	\$435,505	\$448,570	\$462,027	\$475,989	\$490,164	\$504,889	\$520,015	\$535,616	\$551,664	\$4,847,157		\$4,847,157	line 5 * line 6
8	Total Field Technician Sr. Managers	2	2	2	2	2	2	2	2	2	2				DP&L Estimate
9	Average Sr. Manager Salary (Loaded)	\$205,538	\$211,704	\$218,055	\$224,598	\$231,334	\$238,274	\$245,423	\$252,785	\$260,369	\$268,180				DP&L Estimate
10	Total Sr. Management Cost	\$411,075	\$423,407	\$436,108	\$448,193	\$462,069	\$476,549	\$490,845	\$505,570	\$520,738	\$536,360	\$4,712,514		\$4,712,514	line 8 * line 9
11	# of Project Managers	1	1	1	1	1	1	1	1	1	1				DP&L Estimate
12	Average Project Manager Salary (Loaded)	\$129,195	\$133,071	\$137,063	\$141,175	\$145,410	\$149,772	\$154,268	\$158,894	\$163,650	\$168,570				DP&L Estimate
13	Total Project Management Cost	\$129,195	\$133,071	\$137,063	\$141,175	\$145,410	\$149,772	\$154,268	\$158,894	\$163,650	\$168,570	\$1,481,076		\$1,481,076	line 11 * line 12
14	Incremental DPL Installation Technicians and Design Technicians	1	2	2	2	2	2	2	2	2	2				DP&L Estimate
15	Average Technician Salary (Loaded)	\$117,172	\$120,687	\$124,308	\$128,037	\$131,873	\$135,833	\$139,910	\$144,107	\$148,430	\$152,893				DP&L Estimate
16	Total Technician Cost	\$117,172	\$241,373	\$246,616	\$253,074	\$263,757	\$271,669	\$279,819	\$288,214	\$296,860	\$305,788	\$2,598,322		\$2,598,322	line 14 * line 15
17	Incremental Field Technology Support Personnel (Administrative Assistant and Business Analyst)														DP&L Estimate
18	Average Support Person Salary (Loaded)	\$107,840	\$111,075	\$114,407	\$117,839	\$121,374	\$125,018	\$128,766	\$132,626	\$136,606	\$140,708				DP&L Estimate
19	Total Support Person Cost	\$215,679	\$222,149	\$228,814	\$235,678	\$242,749	\$250,031	\$257,532	\$265,258	\$273,216	\$281,412	\$2,472,518		\$2,472,518	line 17 * line 18
20	Total DPL Engineering, Management, Project Management, Support Personnel, and Technician Cost	\$1,286,941	\$1,456,507	\$1,486,172	\$1,544,147	\$1,590,472	\$1,635,188	\$1,687,331	\$1,737,951	\$1,789,080	\$1,843,702	\$16,082,569		\$16,082,569	line 7 + line 10 + line 13 + line 16 - line 19
21	Outsourced Engineering Costs	\$1,632,337	\$2,208,371	\$2,274,822	\$2,342,881	\$2,413,148	\$2,486,941	\$408,037	\$419,218	\$430,764	\$443,087	\$15,255,593		\$15,255,593	DP&L Estimate
22	Number of New Poles	13	58	58	57	57	56	56	56	56	56	355		355	DP&L Estimate
23	Cost per Pole	\$2,200	\$2,200	\$2,200	\$2,200	\$2,200	\$2,200	\$2,200	\$2,200	\$2,200	\$2,200	\$1,150,800		\$1,150,800	DP&L Estimate
24	Total Cost of New Poles	\$28,600	\$127,600	\$127,600	\$125,400	\$125,400	\$123,200	\$123,200	\$123,200	\$123,200	\$123,200	\$9,900		\$9,900	line 22 * line 23
25	# of Underground Circuits Automated														DP&L Estimate
26	# of Reclosers per Underground Circuit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				DP&L Estimate
27	Cost per Underground Recloser	\$65,783	\$64,468	\$63,178	\$61,815	\$60,476	\$59,163	\$58,274	\$57,108	\$55,996	\$54,947	\$2,012,875		\$2,012,875	Current Vendor Costs + DP&L Labor and Installation Estimate
28	Total Underground Recloser Cost				\$308,573	\$303,262	\$291,368	\$285,541	\$279,830	\$274,233	\$268,749	296.1		296.1	line 25 * line 26 * line 27
29	# of Overhead Circuits Automated	8.0	50.0	50.0	47.5	47.5	46.8	46.8	46.8	46.8	46.8				DP&L Estimate
30	# of Reclosers per Overhead Circuit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				DP&L Estimate
31	Cost per Overhead Recloser	\$37,871	\$38,917	\$39,179	\$38,455	\$37,748	\$36,951	\$36,370	\$35,703	\$35,049	\$34,406	\$31,406		\$31,406	Current Vendor Costs + DP&L Labor and Installation Estimate

Type of Filing: Original
Work Paper Reference No(s): n/a

Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (M)	Years 11-19 2020-2037 (N)	Growth Total (L) * (N) (O)	Source
32	Total Overhead Recloser Cost	\$602,732	\$3,691,734	\$3,617,899	\$3,368,264	\$3,300,966	\$3,170,193	\$3,106,779	\$3,044,644	\$2,983,751	\$2,924,076	\$29,810,859	50	\$29,810,859	line 28 * line 30 * line 31
33	# of Air Break Switch Controls	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			DPAL Estimate
34	Cost per Installed Air Break Switch Control	\$6,185	\$6,061	\$5,940	\$5,821	\$5,705	\$5,591	\$5,478	\$5,369	\$5,262	\$5,157				Current Vendor Costs + DPAL Labor and Installation Estimates
35	Total Cost of Air Break Switch Controls	\$197,912	\$1,212,211	\$1,187,987	\$1,105,987	\$1,083,377	\$1,040,956	\$1,020,136	\$999,734	\$979,739	\$960,144	\$9,786,673	-	\$9,786,673	line 29 * line 32 * line 34
36	# of Circuits Automated	8.0	50.0	50.0	50.0	50.0	49.0	49.0	49.0	49.0	49.0	308.0	-	308.0	DPAL Estimate
37	# Capacitor Banks per circuit	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			DPAL Estimate
38	Cost per installed Capacitor Bank Control	\$6,558	\$9,367	\$9,180	\$8,988	\$8,816	\$8,640	\$8,467	\$8,298	\$8,132	\$7,969				Current Vendor Costs + DPAL Labor and Installation Estimates
39	Total Cost of Capacitor Bank Controls	\$306,864	\$1,873,417	\$1,836,840	\$1,766,230	\$1,703,245	\$1,633,421	\$1,563,552	\$1,493,361	\$1,423,824	\$1,354,937	\$15,712,829	-	\$15,712,829	line 36 * line 37 * line 38
40	% of Circuits Overhead	100%	100%	100%	95%	95%	98%	98%	95%	95%	95%	95%			DPAL Estimate
41	# of Voltage Regulators per Circuit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			DPAL Estimate
42	Cost per installed Voltage Regulator Control	\$8,185	\$8,001	\$7,816	\$7,632	\$7,448	\$7,264	\$7,080	\$6,896	\$6,712	\$6,528				Current Vendor Costs + DPAL Labor and Installation Estimates
43	Total Cost of Voltage Regulator Controls	\$8,185	\$8,001	\$7,816	\$7,632	\$7,448	\$7,264	\$7,080	\$6,896	\$6,712	\$6,528	\$2,447,168	-	\$2,447,168	line 39 * line 40 * line 41 * line 42
44	# of Pad Mounted Switchgear	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5			DPAL Estimate
45	Cost per installed Pad Mounted Switchgear	\$8,185	\$8,001	\$7,816	\$7,632	\$7,448	\$7,264	\$7,080	\$6,896	\$6,712	\$6,528				Current Vendor Costs + DPAL Labor and Installation Estimates
46	Cost of Pad Mounted Switchgear	\$24,736	\$151,526	\$149,046	\$145,528	\$142,815	\$136,988	\$134,228	\$131,544	\$128,813	\$126,335	\$1,270,861	-	\$1,270,861	line 39 * line 44 * line 45
47	# of Single Phase Sensors per Circuit	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0			DPAL Estimate
48	Cost per installed Single Phase Sensor	\$1,125	\$1,102	\$1,080	\$1,058	\$1,037	\$1,016	\$996	\$976	\$957	\$938				Vendor Hardware Estimates + DPAL Installation Estimates
49	Total Cost of Single Phase Sensors	\$107,952	\$661,209	\$647,862	\$635,022	\$622,322	\$597,678	\$585,724	\$574,010	\$562,630	\$551,279	\$5,345,765	-	\$5,345,765	line 39 * line 47 * line 48
50	# of DA Devices Installed	188	1175	1175	1185	1185	1142	1142	1142	1142	1142	10,577	-	10,577	DPAL Estimate
51	# of Underground Circuit Circuits Automated	-	-	-	2.5	2.5	2.5	2.5	2.5	2.5	2.5	17	-	17	DPAL Estimate
52	# of Overhead Circuit Circuits Automated	8.0	50.0	50.0	47.5	47.5	46.8	46.8	46.8	46.8	46.8	436	-	436	DPAL Estimate
53	Cost per 2-way Voice/Data Modem for DA Device	\$843	\$843	\$843	\$843	\$843	\$843	\$843	\$843	\$843	\$843				RFP Response
54	Total Cost of 2-way Voice/Data Modems for DA Devices	\$77,691	\$484,944	\$484,944	\$476,507	\$476,507	\$468,977	\$468,977	\$468,977	\$468,977	\$468,977	\$4,335,369	-	\$4,335,369	(line 50 - line 47 * (line 51 + line 52)) * line 53
55	Total Cost of Downtown Dayton DA Solution	\$600,000	\$1,498,065	-	-	-	-	-	-	-	-	\$1,988,065	-	\$1,988,065	DPAL Estimate
56	GIS Information Integration to work with Street Grid	\$2,250,000	\$3,000,000	\$1,750,000	\$1,750,000	-	-	-	-	-	-	\$8,750,000	-	\$8,750,000	DPAL Estimate
57	Total DA Capital	\$2,273,148	\$10,667,620	\$13,871,618	\$13,679,028	\$12,062,834	\$11,804,716	\$9,730,540	\$9,662,401	\$9,578,985	\$9,510,232	\$114,151,097	-	\$114,151,097	line 20+line 21+line 24+line 28+line 32+line 36+line 39+line 43+line 46+line 49+line 54+line 55+line 56

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Substation Automation Capital

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WPI-1.2
Page 1 of 1
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Line No.	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	Outsourced Engineering Costs	\$495,000	\$571,032	\$588,163	\$505,808	\$623,982	\$642,702	\$661,983	\$681,842	\$702,297	\$723,366	\$6,296,175	-	\$6,296,175	DP&L Estimate
2	Additional Field Technicians	1	4	4	4	4	4	4	4	4	3	3			DP&L Estimate
3	Average Technician Salary (Loaded)	\$117,172	\$120,687	\$124,308	\$128,037	\$131,878	\$135,835	\$139,910	\$144,107	\$148,430	\$152,883				DP&L Estimate
4	Installation / Testing Cost	\$117,172	\$482,749	\$497,232	\$512,149	\$527,513	\$543,338	\$559,639	\$576,428	\$445,280	\$458,649	\$4,720,159	-	\$4,720,159	line 2 * line 3
5	# of DA/SA Relay Engineers	1	1	1	1	1	1	1	1	1	1	1			DP&L Estimate
6	# of SA Planning Engineers	1	1	1	1	1	1	1	1	1	1	1			DP&L Estimate
7	# of Incremental SCADA Engineers for SA	1	1	1	1	1	1	1	1	1	1	1			DP&L Estimate
8	Total Engineers	3	3	3	3	3	3	3	3	3	3	3			line 5+line 6+line 7
9	Average Engineer Salary (Loaded)	\$105,705	\$108,876	\$112,142	\$115,507	\$118,972	\$122,541	\$126,217	\$130,004	\$133,804	\$137,621				DP&L Estimate
10	DP&L Engineering Costs	\$317,115	\$326,628	\$336,427	\$346,520	\$356,916	\$367,623	\$378,652	\$390,011	\$401,712	\$413,763	\$3,635,368	-	\$3,635,368	line 8 * line 9
11	# of Project Managers	1	1	1	1	1	1	1	1	1	1	1			DP&L Estimate
12	Average Project Manager Salary (Loaded)	\$128,195	\$133,071	\$137,063	\$141,175	\$145,410	\$149,772	\$154,266	\$158,894	\$163,660	\$168,570				DP&L Estimate
13	Total Project Management Cost	\$128,195	\$133,071	\$137,063	\$141,175	\$145,410	\$149,772	\$154,266	\$158,894	\$163,660	\$168,570	\$1,481,076	-	\$1,481,076	line 11 * line 12
14	# of Substation Relays Replaced	10	13	14	13	13	13	13	13	12	12	126			DP&L Estimates
15	Total Cost of New Relays	\$1,366,265	\$2,116,124	\$3,527,858	\$1,629,493	\$1,136,028	\$1,438,489	\$1,339,783	\$1,834,986	\$1,711,096	\$1,872,079	\$17,605,211	-	\$17,605,211	DP&L Estimates
16	CCEM PMO and CIM allocated to Smart Grid Capital	\$1,805,731	\$1,076,828	\$1,108,133	\$650,922	\$759,244	\$825,425	\$228,269	\$36,147	\$36,201	\$37,267	\$6,365,187	-	\$6,365,187	DP&L Estimates
17	Total SA	\$4,083,506	\$4,708,432	\$6,195,875	\$3,886,067	\$3,549,093	\$3,867,320	\$3,323,690	\$3,477,318	\$3,480,257	\$3,473,715	\$40,103,175	-	\$40,103,175	line 1+line 4+line 10+line 13+line 15+line 16

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Distribution Automation O&M

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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr. Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L)+(M) (O)	Source
1	Total Underground Redoser Cost	-	-	-	\$309,573	\$303,382	\$281,368	\$285,541	\$279,830	\$274,233	\$268,749	\$2,012,675	-	\$2,012,675	WPI-1.1
2	Total Overhead Redoser Cost	\$602,732	\$3,691,734	\$3,617,899	\$3,368,264	\$3,300,899	\$3,170,183	\$3,106,779	\$3,044,644	\$2,983,751	\$2,924,076	\$29,810,959	-	\$29,810,959	WPI-1.1
3	Air Break Switch Equipment Cost	\$187,912	\$1,212,211	\$1,187,967	\$1,105,997	\$1,083,877	\$1,040,956	\$1,020,136	\$999,734	\$979,739	\$960,144	\$9,788,873	-	\$9,788,873	WPI-1.1
4	Capacitor Controls Equipment Cost	\$305,864	\$1,873,417	\$1,835,949	\$1,799,230	\$1,763,245	\$1,693,421	\$1,659,552	\$1,628,381	\$1,593,834	\$1,561,957	\$15,712,829	-	\$15,712,829	WPI-1.1
5	Voltage Regulator Controls Equipment Cost	\$49,478	\$303,053	\$296,992	\$276,499	\$270,969	\$260,239	\$255,034	\$249,933	\$244,935	\$240,036	\$2,447,168	-	\$2,447,168	WPI-1.1
6	Pad Mounted Switchgear Cost	\$24,739	\$151,526	\$148,498	\$145,526	\$142,615	\$136,968	\$134,228	\$131,544	\$128,913	\$126,335	\$1,270,891	-	\$1,270,891	WPI-1.1
7	Single Phase Sensors Equipment Cost	\$107,952	\$681,208	\$647,982	\$635,022	\$622,322	\$597,678	\$585,724	\$574,010	\$562,530	\$551,279	\$5,545,705	-	\$5,545,705	WPI-1.1
8	Narrowband 800MHz Modem Equipment Costs	\$77,591	\$484,941	\$484,941	\$476,507	\$476,507	\$466,977	\$466,977	\$466,977	\$466,977	\$466,977	\$4,335,369	-	\$4,335,369	WPI-1.1
9	Total Cost of Downtown Dayton DA Solution	\$500,000	\$1,486,055	-	-	-	-	-	-	-	-	\$1,988,055	-	\$1,988,055	DP&L Estimate
10	Total DA Equipment Costs	\$1,866,268	\$9,866,142	\$8,220,224	\$8,116,618	\$7,963,816	\$7,657,768	\$7,513,972	\$7,373,032	\$7,234,911	\$7,099,552	\$72,912,325	-	\$72,912,325	Sum Lines 1-9
11	Cumulative Previous DA Device Capital	\$1,866,268	\$11,732,410	\$11,732,410	\$18,952,634	\$28,069,252	\$36,033,088	\$43,690,857	\$51,204,829	\$58,577,861	\$65,812,772				Cumulative of Line 10
12	Maintenance Cost (% of Cumulative Capital)	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%				DP&L Estimate
13	Total DA Device Maintenance Costs	-	\$33,593	\$211,183	\$359,147	\$505,247	\$648,595	\$785,435	\$921,687	\$1,054,402	\$1,184,630	\$5,704,919	\$13,436,461	\$18,141,370	line 11*line 12
14	# of Telecom Technicians	1	1	1	1	1	1	1	1	1	1	1			DP&L Estimate
15	Average Technician Salary (Loaded)	\$117,172	\$120,687	\$124,308	\$128,037	\$131,878	\$135,835	\$139,910	\$144,107	\$148,430	\$152,883				DP&L Estimate
16	Telecom and Engineering HC Expense	\$117,172	\$120,687	\$124,308	\$128,037	\$131,878	\$135,835	\$139,910	\$144,107	\$148,430	\$152,883	\$1,343,247	\$1,387,727	\$2,710,975	line 14*line 15
17	GIS Database Maintenance	-	-	\$262,500	\$350,000	\$437,500	\$437,500	\$437,500	\$437,500	\$437,500	\$437,500	\$3,237,500	\$3,300,000	\$6,737,500	DP&L Estimate
18	Total DA O&M	\$117,172	\$154,280	\$597,991	\$837,185	\$1,074,625	\$1,221,930	\$1,363,845	\$1,503,294	\$1,640,332	\$1,775,013	\$10,285,666	\$18,304,178	\$28,689,844	line 13+line 16+line 17

THE DAYTON POWER AND LIGHT COMPANY
Case No. DB-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Substation Automation O&M

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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr. Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	SA Telecom Equipment	\$3,256,000	\$2,662,000	-	\$1,760,000	\$1,848,000	-	-	-	-	-	\$9,526,000	-	\$9,526,000	WPI-1.7
2	Cumulative SA Telecom Equipment	\$3,256,000	\$3,256,000	\$5,918,000	\$5,918,000	\$7,676,000	\$9,526,000	\$9,526,000	\$9,526,000	\$9,526,000	\$9,526,000				Cumulative of Line 1
3	Total SA Telecom Maintenance Costs	-	\$81,400	\$154,733	\$161,517	\$212,300	\$265,283	\$272,067	\$276,950	\$285,633	\$292,417	\$2,004,200	\$5,690,290	\$7,694,490	DP&L Estimate
4	Outsourced O&M HC Costs	-	\$150,000	\$154,500	\$159,135	\$163,909	\$168,826	\$173,891	\$176,108	\$184,481	\$190,016	\$1,523,866	\$3,662,539	\$5,186,405	DP&L Estimate
5	Total SA O&M	-	\$231,400	\$309,233	\$320,652	\$376,209	\$434,110	\$445,958	\$457,958	\$470,114	\$482,432	\$3,528,066	\$9,352,830	\$12,880,895	line 3+line 4

THE DAYTON POWER AND LIGHT COMPANY
Case No. 03-1034-ELSSO
BOOK II - Customer Conservation and Energy Management
DA Benefits

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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (M)	Years 11-18 2020-2027 Sum (N)	Grand Total (L) + (M) + (N) (O)	Source
1	% of Calls Outage Related on DA Enabled Feeder	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%				DP&L Estimate
2	Reduction in Outage Related Calls	0.21%	2.04%	5.50%	8.81%	12.12%	15.40%	18.64%	21.89%	25.13%	28.38%				Based on Rollout of DA and DP&L Estimate for reduction in Outage Calls on DA enabled circuits
3	Reduction in Total Call Volume	0.01%	0.14%	0.39%	0.62%	0.85%	1.08%	1.30%	1.53%	1.76%	1.98%				line 1 * line 2
4	Baseline Call Volume	1,029,050	1,029,050	1,029,050	1,029,050	1,029,050	1,029,050	1,029,050	1,029,050	1,029,050	1,029,050				DP&L Estimate
5	Cost per Call	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60				DP&L Actual Costs in 2007
6	Savings from Reduction in Outage Related Calls	\$242	\$2,347	\$5,335	\$10,162	\$13,058	\$17,747	\$21,487	\$25,227	\$28,967	\$32,707	\$169,180	\$283,422	\$452,601	line 3 * line 4 * line 5
7	% Improvement - Crew Productivity - Fault Location	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%				DP&L Estimate
8	Average % Circuits Automated During Year	0.99%	7.28%	18.32%	29.36%	40.40%	51.32%	62.14%	72.96%	83.77%	94.59%				DP&L Rollout Plan
9	Cost Center 51 Restriction Service	\$1,624,000	\$1,624,000	\$1,624,000	\$1,624,000	\$1,624,000	\$1,624,000	\$1,624,000	\$1,624,000	\$1,624,000	\$1,624,000				DP&L 2007 Costs
10	Cost Center 142 - 24/7 Operations & Trouble	\$8,100,000	\$8,307,000	\$8,342,000	\$8,598,000	\$8,666,000	\$8,968,000	\$9,588,000	\$9,896,000	\$10,204,000	\$10,598,000				DP&L 2007 Costs adjusted for growth
11	Savings from Increased Crew Productivity	\$2,039	\$23,869	\$60,277	\$98,843	\$105,002	\$172,789	\$209,205	\$246,621	\$282,028	\$318,452	\$1,940,182	\$2,825,013	\$4,774,196	line 7 * line 8 * line 9 * line 10
12	Reduction in Capacitor Bank and Switch Capital														Based on Rollout of DA and DP&L Estimate for reduction in Capacitor and Switch Capital Expenditures on DA enabled circuits
13	Deferral of Capital Costs (Switches, Cap Banks, etc.)														line 8 * line 12
14	Reduction in Repair Costs of downtown Dayton distribution network		\$ 26,072	\$ 107,416	\$ 110,639	\$ 113,958	\$ 117,377	\$ 120,888	\$ 124,325	\$ 128,280	\$ 132,108	\$991,252	\$1,195,161	\$2,186,413	DP&L Estimate
15	Capacitor Bank Maintenance Cost	\$482,746	\$497,202	\$512,149	\$527,513	\$543,336	\$559,639	\$576,426	\$593,721	\$611,532	\$629,878	\$2,894,506	\$5,345,109	\$8,039,635	Based on Rollout of DA and DP&L Estimate for reduction in Capacitor Bank Maintenance on DA enabled circuits
16	Reduction of Capacitor Bank Manual Inspection	\$3,376	\$36,222	\$63,837	\$154,877	\$218,494	\$287,232	\$359,210	\$433,167	\$512,310	\$596,812				DP&L Estimate
17	Cumulative # of Meters Installed	\$20,800	\$20,800	\$20,800	\$20,800	\$20,800	\$20,800	\$20,800	\$20,800	\$20,800	\$20,800				DP&L Rollout Plan (15 yrs)
18	Lost Revenue Per Customer per Year Due to Outages	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05				Based on Rollout of DA and DP&L Estimate for reduction in Customer Outages on DA enabled circuits
19	Increase in DPL Revenue due to DA Related Reduced Outage Time	\$201	\$2,080	\$5,269	\$8,425	\$11,592	\$14,729	\$17,832	\$20,898	\$23,940	\$27,144	\$132,249	\$243,510	\$375,759	DP&L Estimate
20	Potential Reduction in Transformer Replacement due to less overloading of transformers	\$100,358	\$180,358	\$180,358	\$180,358	\$180,358	\$180,358	\$180,358	\$180,358	\$180,358	\$180,358				Based on Rollout of DA and DP&L Estimate for reduction in Transformer failures on DA enabled circuits
21	Reduction in Transformer Replacement Cost	\$1,331	\$13,867	\$34,876	\$65,869	\$96,900	\$97,700	\$118,291	\$149,681	\$180,358	\$190,063	\$877,271	\$1,647,021	\$2,524,292	DP&L Estimate
22	Total DA Benefits	\$7,187	\$104,486	\$308,061	\$438,624	\$571,974	\$707,572	\$845,912	\$986,357	\$1,135,086	\$1,298,286	\$6,390,629	\$11,539,237	\$17,930,863	line 6 * line 11 + line 13 + line 14 + line 16 + line 19 + line 21

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
SA Benefits

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Line No (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	Average % of Substations Automated	3%	13%	24%	35%	45%	55%	65%	76%	86%	95%				DP&L Rollout Plan
2	Potential Substation Cost Reductions	-	-	-	-	-	-	-	-	-	-				DP&L Estimate
3	Reduction of Planned Substation Capital Costs	-	-	-	-	-	-	-	-	-	-				line 1*line 2
4	Reduced RTU Maintenance Costs	5	5	5	5	5	5	5	5	5	5				DP&L Estimate
5	# of Minutes per Year	525,960	525,960	525,960	525,960	525,960	525,960	525,960	525,960	525,960	525,960				365.25 days*24 hours*60 minutes
6	Average Revenue per Residential Customer	\$1,073	\$1,073	\$1,073	\$1,073	\$1,073	\$1,073	\$1,073	\$1,073	\$1,073	\$1,073				2006 residential revenues/# residential customers
7	Total AMI Meters Installed	520,800	520,800	520,800	520,800	520,800	520,800	520,800	520,800	520,800	520,800				DP&L Rollout Plan (10 yrs)
8	Increased DPL Revenue from SA Related Reduced Outage Time	\$184	\$626	\$1,139	\$1,651	\$2,145	\$2,638	\$3,131	\$3,625	\$4,099	\$4,555	\$23,774	\$38,261	\$62,035	line 1*line 6*line 7*(line 4*line 5)
9	Potential Reduction in RTU Maintenance Costs	\$117,172	\$117,172	\$117,172	\$117,172	\$117,172	\$117,172	\$117,172	\$117,172	\$117,172	\$117,172				DP&L Estimate
10	Reduced RTU Maintenance Cost	\$4,030	\$15,344	\$27,898	\$40,452	\$52,541	\$64,631	\$76,720	\$88,809	\$100,433	\$111,593	\$582,451	\$937,377	\$1,519,828	line 1*line 9
11	Reduced SA Capital due to less overloading	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000				DP&L Estimate
12	Better Utilization of Substation Capital	\$3,439	\$13,095	\$23,610	\$34,524	\$44,841	\$55,158	\$65,476	\$75,794	\$85,714	\$95,238	\$497,090	\$800,000	\$1,297,090	line 1*line 11
13	Total SA Benefits	\$7,633	\$29,066	\$52,846	\$76,627	\$99,527	\$122,427	\$145,328	\$168,228	\$190,247	\$211,385	\$1,103,315	\$1,775,638	\$2,878,953	line 3*line 8+line 10+line 12

THE DAYTON POWER AND LIGHT COMPANY
Case No. 08-1094-EL-SSO
BOOK II - Customer Conservation and Energy Management
Smart Grid Communications Capital

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Page 1 of 1
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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr. Total Sum (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	2-Way Voice/Data Frequency Acquisition Cost	\$127,500	-	-	-	-	-	-	-	-	-	\$127,500	-	\$127,500	RFP Response
2	Total 2-Way Voice/Data Base Station Cost	\$1,567,896	\$746,617	-	-	-	-	-	-	-	-	\$2,314,513	-	\$2,314,513	RFP Response
3	2-Way System Back Office (Data Switch, EMS, Wide Area Controller, PSTN Gateway, I/O)	\$4,512,236	\$2,670,286	\$204,223	\$210,350	\$216,660	-	-	-	-	-	\$7,813,756	-	\$7,813,756	RFP Response
4	2-Way System Spares	\$772,510	-	-	-	-	-	-	-	-	-	\$772,510	-	\$772,510	RFP Response
5	Total 2-Way Voice/Data Hardware & Software	\$6,660,142	\$3,416,903	\$204,223	\$210,350	\$216,660	-	-	-	-	-	\$11,028,279	-	\$11,028,279	sum of lines 1-4
6	Total Cost of New Vehicular Radios	\$27,493	\$384,302	-	-	-	-	-	-	-	-	\$412,395	-	\$412,395	RFP Response
7	Total Cost of New Portable Radios	\$17,648	\$167,656	-	-	-	-	-	-	-	-	\$185,304	-	\$185,304	RFP Response
8	Cost of Portable Computers for Mobile Workers In Field	\$79,783	\$159,567	\$169,567	\$718,049	\$877,616	-	-	-	-	-	\$1,994,582	-	\$1,994,582	DP&L Estimate
9	2-Way Voice/Data Mobiles & Portables	\$124,924	\$712,125	\$168,567	\$718,049	\$877,616	-	-	-	-	-	\$2,592,281	-	\$2,592,281	line 76+line 7+line 8
10	Total 2 Way Voice + Data	\$7,105,066	\$4,129,028	\$363,790	\$628,399	\$1,094,276	-	-	-	-	-	\$13,620,560	-	\$13,620,560	line 5+line 9
11	Cost for Backhaul to Remote 2-Way Voice/Data Sites Not in Substations	\$104,500	-	-	-	-	-	-	-	-	-	\$104,500	-	\$104,500	RFP Response
12	Upgrade Pilot Wire	\$2,200,000	\$550,000	-	-	-	-	-	-	-	-	\$2,750,000	-	\$2,750,000	Existing Vendors+DP&L Installation Estimate
13	# of Substations Requiring Real-Time SCADA Communication	12	24	-	20	21	-	-	-	-	-	-	-	-	Existing Substation Configurations
14	Cost for Wireless SA Communications Equipment Per Substation	88,000	88,000	88,000	88,000	88,000	88,000	88,000	88,000	88,000	88,000	\$8,776,000	-	\$8,776,000	RFP Responses
15	Total Cost for Wireless SA Communications Equipment	1,056,000	2,112,000	-	1,760,000	1,848,000	-	-	-	-	-	\$6,776,000	-	\$6,776,000	Line 13 + Line 14
16	Total SA Telecom Equipment & Installation	3,256,000	2,682,000	-	1,760,000	1,846,000	-	-	-	-	-	\$9,526,000	-	\$9,526,000	line 15+line 12
17	Total Smart Grid Communications Capital	10,465,566	6,791,028	363,790	2,668,399	2,942,276	-	-	-	-	-	\$23,251,060	-	\$23,251,060	line 10+line 11+line 16

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Smart Grid Communications Benefits

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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (M) (O)	Source
1	Completion of Core Telecom Rollout (Midyear)	-	13%	44%	81%	100%	100%	100%	100%	100%	100%				DP&L Rollout Plan
2	Potential Field Crew Savings (e.g., fuel, overtime)	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000			DP&L Estimate
3	Total Field Crew Savings	-	\$25,881	\$88,511	\$162,631	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,477,023	\$1,600,000	\$3,077,023	line 1 + line 2
4	Potential Dispatcher Savings	\$483,918	\$477,835	\$492,170	\$506,936	\$522,144	\$537,808	\$553,942	\$570,560	\$587,677	\$606,308				DP&L Estimate
5	Percent of Dispatcher Savings Available (Due to Availability of IT application, Vehicle Upgrades, and Network Availability)	-	-	-	-	50%	100%	100%	100%	100%	100%				DP&L Rollout Plan
6	Total Dispatcher Savings	-	-	-	-	\$ 261,072	\$ 537,808	\$ 553,942	\$ 570,560	\$ 587,677	\$ 606,308	\$3,118,387	\$5,415,220	\$8,531,587	line 4 + line 5
7	Total Smart Grid Communications Benefits	-	\$25,881	\$88,511	\$162,631	\$461,072	\$737,808	\$753,942	\$770,560	\$787,677	\$806,308	\$4,593,390	\$7,015,220	\$11,808,610	line 3 + line 6

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Smart Grid Communications O&M

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Line No. (A)	Description (B)	2010 (C)	2011 (D)	2012 (E)	2013 (F)	2014 (G)	2015 (H)	2016 (I)	2017 (J)	2018 (K)	2019 (L)	10 Yr Total Sum (B)-(K) (M)	Years 11-18 2020-2027 (N)	Grand Total (L) + (N) (O)	Source
1	2-Way Voice and Data Maintenance Cost	\$399,344	\$453,812	\$787,968	\$808,374	\$851,539	\$1,024,062	\$1,043,061	\$1,062,630	\$1,082,787	\$1,103,548	\$8,617,125	\$8,721,351	\$17,338,476	5% of Smart Grid Communications Hardware and Software Capital
2	Total O&M Cost	\$399,344	\$453,812	\$787,968	\$808,374	\$851,539	\$1,024,062	\$1,043,061	\$1,062,630	\$1,082,787	\$1,103,548	\$8,617,125	\$8,721,351	\$17,338,476	Line 1