

**MUNICIPAL ELECTRIC PROVIDER
JOINT FILING
OF THE
RENEWABLE ENERGY PLAN
UNDER PA 295**

U-16580

JULY 1, 2011

Renewable Energy Plan
Joint Submittal by the Michigan South Central Power Agency
On Behalf of Its Members; the
Village of Clinton – MPSC Case No. U-16603,
City of Coldwater – MPSC Case No. U-16604,
City of Hillsdale – MPSC Case No. U-16616,
City of Marshall – MPSC Case No. U-16622, and the
Village of Union City – MPSC Case No. U-16636

This joint filing by the Michigan South Central Power Agency (MSCPA) on behalf of its Members, the Village of Clinton, the City of Coldwater, the City of Hillsdale, the City of Marshall, and the Village of Union City, complies with Public Act 295 of 2008 (the Act), the related December 4, 2008 Michigan Public Service Commission Order (MPSC Case No. U-15800) and the related February 22, 2011 Michigan Public Service Commission Order (MPSC Case No. U-16580).

Part 2, Section 25, of the Act requires municipal utilities to file a twenty year plan to achieve renewable energy credit portfolio standards that are specified in Section 27. The plan must be filed with the MPSC with 120 days of the MPSC's temporary order, issued pursuant to Section 191. Each electric providers plan must do the following:

- a) Describe how the provider will meet the RPS standards;
- b) Specify whether the number of megawatt hours of electricity used in the calculation of the renewable energy credit portfolio will be weather normalized or based on the average number of megawatt hours of electricity sold by the electric provider annually during the previous 3 years to retail customers in this state;
- c) Include the expected incremental cost of compliance with the renewable energy standards;
- d) Describe the manner in which the provider will allocate costs.

This document and its attachments satisfy all of the requirements of Section 25 (2) for the twenty year period running from 2009 through 2028.

Section 25 (2) (a) “Describe how the provider will meet the renewable energy standards”

The MSCPA, on behalf of its Members, will meet the renewable energy standards through the use of:

- a) Existing hydro resources for the City of Marshall and the Village of Union City; *(Section 11, (i), (iv), (B) of the Act)*
- b) New hydro resources currently under development through AMP-Ohio; *(Section 11, (i), (iv), (B) and Section 29, (2), (f) of the Act)*

The above described resources are further described in Attachment A.

Section 25 (2) (b) “Specify whether the number of megawatt hours of electricity used in the calculation of the renewable energy credit portfolio will be weather normalized or based on the average number of megawatt hours of electricity sold by the electric provider annually during the previous 3 years to retail customers in this state”

The MSCPAs, and each of its Members, will be calculating their renewable energy credit portfolio requirements based on the average number of megawatt hours of electricity sold by each member annually during the previous three years to retail customers in this state.

Section 25 (2) (c) “Include the expected incremental cost of compliance with the renewable energy standards”

Following the *Filing Requirements and Instructions for Renewable Energy Plans for Municipally-Owned Electric Utilities* provided in Attachment C of the MPSC Order to implement PA 295, we have provided *Attachment B – Renewable Energy Plan Surcharge Summary* which details the compliance cost for each MSCPAs Member. As shown in each Member’s *Attachment B*, MSCPAs Members do not anticipate any additional costs of compliance associated with the renewable energy standards. Production costs for both the current and future hydro, as well as the fractionalized tire project at Endicott, are not expected to add to MSCPAs energy supply costs.

Section 25 (2) (d) “Describe the manner in which the provider will allocate costs”

Due to the fact that no additional cost of compliance is anticipated, there will be no charges allocated to MSCPAs Member customers.

Attachment A – MSCPAs Member Renewable Energy Resources

Existing Hydro Resources

City of Marshall – Owns and operates an existing run-of-the-river hydro facility consisting of two units with a combined capacity of 0.319 MW. During the past three years, this facility generated a total of 4,620 megawatt hours, an annual average of 1,540 megawatt hours, which equates to an average annual capacity factor of 55%.

Village of Union City – Owns and operates an existing run-of-the-river hydro facility consisting of two units with a combined capacity of 0.375 MW. During the past three years, this facility generated a total of 4,919 megawatt hours, an annual average of 1,640 megawatt hours, which equates to an average annual capacity factor of 50%.

New Hydro Resources

Four of the five MSCPAs Members have committed to purchase 13.4 MW of a hydro development project through AMP-Ohio, an Ohio corporation that provides energy related services to, at present, 128 municipal members located in six states. The original hydro project consists of the development of three hydro generation stations at existing lock and dam facilities located on the Ohio River. The units were originally scheduled to be online in 2012, but with construction delays the first two projects are now scheduled to be on line by mid-2014 with the final unit to be on line in 2015. Collectively, these units are expected to have an installed capacity of 206 MW, with an anticipated annual capacity factor of 55%.

The allocation of interest in this project for the participating MSCPAs members is as follows:

Member	Capacity (MW)	Expected Annual Energy (MWh)
Village of Clinton	0.7	3,373
City of Coldwater	6.5	31,317
City of Hillsdale	3.4	16,381
City of Marshall	2.8	13,490

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

Village of Clinton - MPSC Case U-16603

	Units	2009	2010	2011	2012	2013	2014	2015	2016	2017	
	MWH	20,978	23,365	22,615	22,915	23,030	23,145				
Annual Retail Sales (Actual/Forecast 2011-2029)											
Sales Forecast (3-yr running average)	MWH				22,319	22,965	22,853	23,030			
RPS Renewable Energy Credit Compliance Requirement											
RE Portfolio (Sales Forecast Multiplied by 10%)	REC				2,232	2,297	2,285	2,303	2,303	2,303	
Baseline (REC from existing RE Supply (Pre RPS))	REC				-	-	-	-	-	-	
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC				2,232	2,297	2,285	2,303	2,303	2,303	
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	0%	0%	0%	20%	33%	50%	100%	100%	100%	
REC's Required due to RPS Requirements Adder	REC	-	-	-	446	758	1,143	2,303	2,303	2,303	
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	-	-	-	446	758	1,143	2,303	2,303	2,303	
REC Inventory											
REC Obtained:											
<u>Generation Based</u>											
Banked from Prior Year	REC	-	-	-	-	-	-	-	-	-	
Future Year REC's (up to 120 days)	REC				-	336	418	-	-	-	
Future Year Incentive REC's (up to 120 days)	REC				-	27	-	-	-	-	
Less: REC's Allocated to Prior Year	REC				-	(336)	(418)	-	-	-	
Less: Incentive REC's Allocated to Prior Year	REC				-	(27)	-	-	-	-	
Build/BOT	REC	-	-	-	-	-	-	-	-	-	
PPA	REC	-	-	-	-	-	1,007	3,355	3,355	3,355	
<i>Subtotal (1)</i>	REC	-	-	-	-	363	1,062	2,937	3,355	3,355	
Purchase	REC	-	-	-	446	395	-	-	-	-	
Incentive (SB 213 Sec 39 (2))	REC	-	-	-	-	-	81	268	268	268	
<i>Subtotal (2)</i>	REC	-	-	-	446	758	1,143	3,205	3,623	3,623	
Less: Sold	REC	-	-	-	-	-	-	(902)	(1,320)	(1,320)	
Less: Retired for Compliance	REC	-	-	-	(446)	(758)	(1,143)	(2,303)	(2,303)	(2,303)	
Less: Expired	REC	-	-	-	-	-	-	-	-	-	
Year-End REC Balance	REC	-	-	-	-	-	-	-	-	-	
RPS Renewable Energy Credit Compliance Requirement											
Compliance Requirement	REC					446	758	1,143	2,303	2,303	2,303
Retired for Compliance	REC					446	758	1,143	2,303	2,303	2,303
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage					2.00%	3.30%	5.00%	10.00%	10.00%	10.00%
Revenue Requirement (Renewable only)											
Build/BOT	\$s	-	-	-	-	-	-	-	-	-	
PPA	\$s				-	43,680	141,570	381,810	436,150	436,150	436,150
REC Purchases (Sales) @ \$10 Estimated per REC	\$s				4,460	3,950	-	(9,020)	(13,200)	(13,200)	(13,200)
Total	\$s				4,460	47,630	141,570	372,790	422,950	422,950	422,950
\$ Per MWH/ (\$ Per REC if no Build/BOT or PPA for that year)	\$MWH or \$REC				10	63	124	116	117	117	117
Forecasted Transfer Price	\$/MWH				133	133	133	133	133	133	133
Amount recovered through PSCR (transfer price * volume of energy or REC's)	\$s				59,318	97,223	144,837	390,621	446,215	446,215	446,215
Incremental Cost of Compliance	\$s				(54,858)	(49,593)	(3,267)	(17,831)	(23,265)	(23,265)	(23,265)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

Village of Clinton - MPSC Case U-16603

	Units MWH	2018	2019	2020	2021	2022	2023	2024	2025
Annual Retail Sales (Actual/Forecast 2011-2029)									
Sales Forecast (3-yr running average)	MWH								
RPS Renewable Energy Credit Compliance Requirement									
RE Portfolio (Sales Forecast Multiplied by 10%)	REC	2,303	2,303	2,303	2,303	2,303	2,303	2,303	2,303
Baseline (REC from existing RE Supply (Pre RPS))	REC	-	-	-	-	-	-	-	-
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC	2,303	2,303	2,303	2,303	2,303	2,303	2,303	2,303
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	100%	100%	100%	100%	100%	100%	100%	100%
REC's Required due to RPS Requirements Adder		2,303	2,303	2,303	2,303	2,303	2,303	2,303	2,303
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	2,303	2,303	2,303	2,303	2,303	2,303	2,303	2,303
REC Inventory									
REC Obtained:									
<u>Generation Based</u>									
Banked from Prior Year	REC	-	-	-	-	-	-	-	-
Future Year REC's (up to 120 days)	REC	-	-	-	-	-	-	-	-
Future Year Incentive REC's (up to 120 days)	REC	-	-	-	-	-	-	-	-
Less: REC's Allocated to Prior Year	REC	-	-	-	-	-	-	-	-
Less: Incentive REC's Allocated to Prior Year	REC	-	-	-	-	-	-	-	-
Build/BOT	REC	-	-	-	-	-	-	-	-
PPA	REC	3,355	3,355	3,355	3,355	3,355	3,355	3,355	3,355
<i>Subtotal (1)</i>	REC	3,355	3,355	3,355	3,355	3,355	3,355	3,355	3,355
Purchase	REC	-	-	-	-	-	-	-	-
Incentive (SB 213 Sec 39 (2))	REC	268	268	268	268	268	268	268	268
<i>Subtotal (2)</i>	REC	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623
Less: Sold	REC	(1,320)	(1,320)	(1,320)	(1,320)	(1,320)	(1,320)	(1,320)	(1,320)
Less: Retired for Compliance	REC	(2,303)	(2,303)	(2,303)	(2,303)	(2,303)	(2,303)	(2,303)	(2,303)
Less: Expired	REC	-	-	-	-	-	-	-	-
Year-End REC Balance	REC	-	-	-	-	-	-	-	-
RPS Renewable Energy Credit Compliance Requirement									
Compliance Requirement	REC	2,303	2,303	2,303	2,303	2,303	2,303	2,303	2,303
Retired for Compliance	REC	2,303	2,303	2,303	2,303	2,303	2,303	2,303	2,303
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Revenue Requirement (Renewable only)									
Build/BOT	\$s	-	-	-	-	-	-	-	-
PPA	\$s	436,150	436,150	436,150	436,150	436,150	436,150	436,150	436,150
REC Purchases (Sales) @ \$10 Estimated per REC	\$s	(13,200)	(13,200)	(13,200)	(13,200)	(13,200)	(13,200)	(13,200)	(13,200)
Total	\$s	422,950	422,950	422,950	422,950	422,950	422,950	422,950	422,950
\$ Per MWH/ (\$ Per REC if no Build/BOT or PPA for that year)	\$MWH or \$REC	117	117	117	117	117	117	117	117
Forecasted Transfer Price	\$/MWH	133	133	133	133	133	133	133	133
Amount recovered through PSCR (transfer price * volume of energy or REC's)	\$s	446,215	446,215	446,215	446,215	446,215	446,215	446,215	446,215
Incremental Cost of Compliance	\$s	(23,265)	(23,265)	(23,265)	(23,265)	(23,265)	(23,265)	(23,265)	(23,265)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

Village of Clinton - MPSC Case U-16603

	Units MWH	2026	2027	2028	2029	Total/Plan to Date
Annual Retail Sales (Actual/Forecast 2011-2029)						
Sales Forecast (3-yr running average)	MWH					
RPS Renewable Energy Credit Compliance Requirement						
RE Portfolio (Sales Forecast Multiplied by 10%)	REC	2,303	2,303	2,303	2,303	
Baseline (REC from existing RE Supply (Pre RPS))	REC	-	-	-	-	
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC	2,303	2,303	2,303	2,303	
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	100%	100%	100%	100%	
REC's Required due to RPS Requirements Adder		2,303	2,303	2,303	2,303	
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	2,303	2,303	2,303	2,303	36,892

REC Inventory

REC Obtained:

Generation Based

Banked from Prior Year	REC	-	-	-	-	
Future Year REC's (up to 120 days)	REC	-	-	-	-	
Future Year Incentive REC's (up to 120 days)	REC	-	-	-	-	
Less: REC's Allocated to Prior Year	REC	-	-	-	-	
Less: Incentive REC's Allocated to Prior Year	REC	-	-	-	-	
Build/BOT	REC	-	-	-	-	
PPA	REC	3,355	3,355	3,355	3,355	51,332
<i>Subtotal (1)</i>	REC	3,355	3,355	3,355	3,355	51,332
Purchase	REC	-	-	-	-	841
Incentive (SB 213 Sec 39 (2))	REC	268	268	268	268	4,101
<i>Subtotal (2)</i>	REC	3,623	3,623	3,623	3,623	56,274
Less: Sold	REC	(1,320)	(1,320)	(1,320)	(1,320)	(19,382)
Less: Retired for Compliance	REC	(2,303)	(2,303)	(2,303)	(2,303)	(36,892)
Less: Expired	REC	-	-	-	-	(56,274)
Year-End REC Balance	REC	-	-	-	-	-

RPS Renewable Energy Credit Compliance Requirement

Compliance Requirement	REC	2,303	2,303	2,303	2,303
Retired for Compliance	REC	2,303	2,303	2,303	2,303
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage	10.00%	10.00%	10.00%	10.00%

Revenue Requirement (Renewable only)

Build/BOT	\$s	-	-	-	-
PPA	\$s	436,150	436,150	436,150	436,150
REC Purchases (Sales) @ \$10 Estimated per REC	\$s	(13,200)	(13,200)	(13,200)	(13,200)
Total	\$s	422,950	422,950	422,950	422,950
\$ Per MWH/ (\$ Per REC if no Build/BOT or PPA for that year)	\$MWH or \$REC	117	117	117	117

Forecasted Transfer Price

Amount recovered through PSCR (transfer price * volume of energy or REC's)	\$s	446,215	446,215	446,215	446,215	6,939,009
Incremental Cost of Compliance	\$s	(23,265)	(23,265)	(23,265)	(23,265)	(451,259)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

City of Coldwater - MPSC Case U-16604

	Units	2009	2010	2011	2012	2013	2014	2015	2016
	MWH	267,874	287,989	295,353	345,003	364,725	366,549		
Annual Retail Sales (Actual/Forecast 2011-2029)									
Sales Forecast (3-yr running average)	MWH				283,739	309,448	335,027	358,759	
RPS Renewable Energy Credit Compliance Requirement									
RE Portfolio (Sales Forecast Multiplied by 10%)	REC				28,374	30,945	33,503	35,876	35,876
Baseline (REC from existing RE Supply (Pre RPS))	REC				-	-	-	-	-
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC				28,374	30,945	33,503	35,876	35,876
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	0%	0%	0%	20%	33%	50%	100%	100%
REC's Required due to RPS Requirements Adder	REC	-	-	-	5,675	10,212	16,752	35,876	35,876
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	-	-	-	5,675	10,212	16,752	35,876	35,876

REC Inventory

REC Obtained:

Generation Based

Banked from Prior Year	REC	-	-	-	-	-	-	-	-
Future Year REC's (up to 120 days)	REC				-	3,129	9,992	7,536	-
Future Year Incentive REC's (up to 120 days)	REC				-	250	-	-	-
Less: REC's Allocated to Prior Year	REC				-	(3,129)	(9,992)	(7,536)	
Less: Incentive REC's Allocated to Prior Year	REC				-	(250)	-	-	-
Build/BOT	REC	-	-	-	-	-	-	-	-
PPA	REC	-	-	-	-	9,388	31,294	31,294	
<i>Subtotal (1)</i>	REC	-	-	-	-	3,379	16,001	28,838	23,758
Purchase	REC	-	-	-	5,675	6,833	-	4,534	9,614
<i>Subtotal (2)</i>	REC	-	-	-	-	-	751	2,504	2,504
Less: Sold	REC	-	-	-	-	-	-	-	-
Less: Retired for Compliance	REC	-	-	-	(5,675)	(10,212)	(16,752)	(35,876)	(35,876)
Less: Expired	REC	-	-	-	-	-	-	-	-
Year-End REC Balance	REC	-	-	-	-	-	-	-	-

RPS Renewable Energy Credit Compliance Requirement

Compliance Requirement	REC				5,675	10,212	16,752	35,876	35,876
Retired for Compliance	REC				5,675	10,212	16,752	35,876	35,876
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage				2.00%	3.30%	5.00%	10.00%	10.00%

Revenue Requirement (Renewable only)

Build/BOT	\$'	-	-	-	-	-	-	-	-
PPA	\$'				-	406,770	2,112,630	3,748,940	3,088,540
REC Purchases (Sales) @ \$10 Estimated per REC	\$'				56,750	68,330	-	45,340	96,140
Total	\$'				56,750	475,100	2,112,630	3,794,280	3,184,680
\$ Per MWH/ (\$ Per REC if no Build/BOT or PPA for that year)	\$MWH or \$REC				10	47	126	106	89

Forecasted Transfer Price

Amount recovered through PSCR (transfer price * volume of energy or REC's)	\$'				754,775	1,324,946	2,161,383	4,438,476	4,438,476
Incremental Cost of Compliance	\$'				(698,025)	(849,846)	(48,753)	(644,196)	(1,253,796)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

City of Coldwater - MPSC Case U-16604

	Units MWH	2017	2018	2019	2020	2021	2022	2023
Annual Retail Sales (Actual/Forecast 2011-2029)								
Sales Forecast (3-yr running average)	MWH							
RPS Renewable Energy Credit Compliance Requirement								
RE Portfolio (Sales Forecast Multiplied by 10%)	REC	35,876	35,876	35,876	35,876	35,876	35,876	35,876
Baseline (REC from existing RE Supply (Pre RPS))	REC	-	-	-	-	-	-	-
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC	35,876	35,876	35,876	35,876	35,876	35,876	35,876
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	100%	100%	100%	100%	100%	100%	100%
REC's Required due to RPS Requirements Adder		35,876	35,876	35,876	35,876	35,876	35,876	35,876
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	35,876	35,876	35,876	35,876	35,876	35,876	35,876
REC Inventory								
REC Obtained:								
<u>Generation Based</u>								
Banked from Prior Year	REC	-	-	-	-	-	-	-
Future Year REC's (up to 120 days)	REC	-	-	-	-	-	-	-
Future Year Incentive REC's (up to 120 days)	REC	-	-	-	-	-	-	-
Less: REC's Allocated to Prior Year	REC	-	-	-	-	-	-	-
Less: Incentive REC's Allocated to Prior Year	REC	-	-	-	-	-	-	-
Build/BOT	REC	-	-	-	-	-	-	-
PPA	REC	31,294	31,294	31,294	31,294	31,294	31,294	31,294
<i>Subtotal (1)</i>	REC	31,294	31,294	31,294	31,294	31,294	31,294	31,294
Purchase	REC	2,078	2,078	2,078	2,078	2,078	2,078	2,078
<i>Incentive (SB 213 Sec 39 (2))</i>	REC	2,504	2,504	2,504	2,504	2,504	2,504	2,504
<i>Subtotal (2)</i>	REC	35,876	35,876	35,876	35,876	35,876	35,876	35,876
Less: Sold	REC	-	-	-	-	-	-	-
Less: Retired for Compliance	REC	(35,876)	(35,876)	(35,876)	(35,876)	(35,876)	(35,876)	(35,876)
Less: Expired	REC	-	-	-	-	-	-	-
Year-End REC Balance	REC	-	-	-	-	-	-	-
RPS Renewable Energy Credit Compliance Requirement								
Compliance Requirement	REC	35,876	35,876	35,876	35,876	35,876	35,876	35,876
Retired for Compliance	REC	35,876	35,876	35,876	35,876	35,876	35,876	35,876
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Revenue Requirement (Renewable only)								
Build/BOT	\$s	-	-	-	-	-	-	-
PPA	\$s	4,068,220	4,068,220	4,068,220	4,068,220	4,068,220	4,068,220	4,068,220
REC Purchases (Sales) @ \$10 Estimated per REC	\$s	20,780	20,780	20,780	20,780	20,780	20,780	20,780
Total	\$s	4,089,000	4,089,000	4,089,000	4,089,000	4,089,000	4,089,000	4,089,000
\$ Per MWH/ (\$ Per REC if no Build/BOT or PPA for that year)	\$MWH or \$REC	114	114	114	114	114	114	114
Forecasted Transfer Price	\$/MWH	133	133	133	133	133	133	133
Amount recovered through PSCR (transfer price * volume of energy or REC's)	\$s	4,438,476	4,438,476	4,438,476	4,438,476	4,438,476	4,438,476	4,438,476
Incremental Cost of Compliance	\$s	(349,476)	(349,476)	(349,476)	(349,476)	(349,476)	(349,476)	(349,476)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

City of Coldwater - MPSC Case U-16604

	Units MWH	2024	2025	2026	2027	2028	2029	Total/Plan to Date
Annual Retail Sales (Actual/Forecast 2011-2029)								
Sales Forecast (3-yr running average)	MWH							
RPS Renewable Energy Credit Compliance Requirement								
RE Portfolio (Sales Forecast Multiplied by 10%)	REC	35,876	35,876	35,876	35,876	35,876	35,876	
Baseline (REC from existing RE Supply (Pre RPS))	REC	-	-	-	-	-	-	
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC	35,876	35,876	35,876	35,876	35,876	35,876	
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	100%	100%	100%	100%	100%	100%	
REC's Required due to RPS Requirements Adder		35,876	35,876	35,876	35,876	35,876	35,876	
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	35,876	35,876	35,876	35,876	35,876	35,876	570,779

REC Inventory

REC Obtained:

Generation Based

Banked from Prior Year

Future Year REC's (up to 120 days)

Future Year Incentive REC's (up to 120 days)

Less: REC's Allocated to Prior Year

Less: Incentive REC's Allocated to Prior Year

Build/BOT

PPA

Subtotal (1)

Purchase

Incentive (SB 213 Sec 39 (2))

Subtotal (2)

Less: Sold

Less: Retired for Compliance

Less: Expired

Year-End REC Balance

RPS Renewable Energy Credit Compliance Requirement

Compliance Requirement

Retired for Compliance

REC Compliance Percentage (Retired for Compliance/Sales Forecast)

	Percentage	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
		35,876	35,876	35,876	35,876	35,876	35,876

Revenue Requirement (Renewable only)

Build/BOT

PPA

REC Purchases (Sales) @ \$10 Estimated per REC

Total

\$ Per MWH/ (\$ Per REC if no Build/BOT or PPA for that year)

Forecasted Transfer Price

Amount recovered through PSCR (transfer price * volume of energy or REC's)

Incremental Cost of Compliance

	\$/MWH	133	133	133	133	133	133
	\$s	4,438,476	4,438,476	4,438,476	4,438,476	4,438,476	4,438,476
	\$s	(349,476)	(349,476)	(349,476)	(349,476)	(349,476)	(349,476)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

City of Hillsdale - MPSC Case U-16616

	Units	2009	2010	2011	2012	2013	2014	2015	2016
	MWH	120,697	121,437	124,835	120,737	121,341	121,947		
Annual Retail Sales (Actual/Forecast 2011-2029)									
Sales Forecast (3-yr running average)	MWH				122,323	122,336	122,304	121,342	
RPS Renewable Energy Credit Compliance Requirement									
RE Portfolio (Sales Forecast Multiplied by 10%)	REC				12,232	12,234	12,230	12,134	12,134
Baseline (REC from existing RE Supply (Pre RPS))	REC				-	-	-	-	-
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC				12,232	12,234	12,230	12,134	12,134
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	0%	0%	0%	20%	33%	50%	100%	100%
REC's Required due to RPS Requirements Adder	REC	-	-	-	2,446	4,037	6,115	12,134	12,134
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	-	-	-	2,446	4,037	6,115	12,134	12,134
REC Inventory									
REC Obtained:									
<u>Generation Based</u>									
Banked from Prior Year	REC	-	-	-	-	-	-	-	-
Future Year REC's (up to 120 days)	REC				-	1,639	2,575	-	-
Future Year Incentive REC's (up to 120 days)	REC				-	131	-	-	-
Less: REC's Allocated to Prior Year	REC				-	-	(1,639)	(2,575)	-
Less: Incentive REC's Allocated to Prior Year	REC				-	-	(131)	-	-
Build/BOT	REC	-	-	-	-	-	-	-	-
PPA	REC	-	-	-	-	-	4,917	16,389	16,389
<i>Subtotal (1)</i>	REC	-	-	-	-	1,770	5,722	13,814	16,389
Purchase	REC	-	-	-	2,446	2,267	-	-	-
Incentive (SB 213 Sec 39 (2))	REC	-	-	-	-	-	393	1,311	1,311
<i>Subtotal (2)</i>	REC	-	-	-	2,446	4,037	6,115	15,125	17,700
Less: Sold	REC	-	-	-	-	-	-	(2,991)	(5,566)
Less: Retired for Compliance	REC	-	-	-	(2,446)	(4,037)	(6,115)	(12,134)	(12,134)
Less: Expired	REC	-	-	-	-	-	-	-	-
Year-End REC Balance	REC	-	-	-	-	-	-	-	-
RPS Renewable Energy Credit Compliance Requirement									
Compliance Requirement	REC				2,446	4,037	6,115	12,134	12,134
Retired for Compliance	REC				2,446	4,037	6,115	12,134	12,134
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage				2.00%	3.30%	5.00%	10.00%	10.00%
Revenue Requirement (Renewable only)									
Build/BOT	\$'				-	-	-	-	-
PPA	\$'				-	213,070	760,890	1,795,820	2,130,570
REC Purchases (Sales) @ \$10 Estimated per REC	\$'				24,460	22,670	-	(29,910)	(55,660)
Total	\$'				24,460	235,740	760,890	1,765,910	2,074,910
\$ Per MWH/ (\$ Per REC if no Build/BOT or PPA for that year)	\$MWH or \$REC				10	58	124	117	117
Forecasted Transfer Price	\$/MWH				133	133	133	133	133
Amount recovered through PSCR (transfer price * volume of energy or REC's)	\$'				325,318	519,498	778,449	1,837,262	2,179,737
Incremental Cost of Compliance	\$'				(300,858)	(283,758)	(17,559)	(71,352)	(104,827)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

City of Hillsdale - MPSC Case U-16616

	Units MWH	2017	2018	2019	2020	2021	2022	2023
Annual Retail Sales (Actual/Forecast 2011-2029)								
Sales Forecast (3-yr running average)	MWH							
RPS Renewable Energy Credit Compliance Requirement								
RE Portfolio (Sales Forecast Multiplied by 10%)	REC	12,134	12,134	12,134	12,134	12,134	12,134	12,134
Baseline (REC from existing RE Supply (Pre RPS))	REC	-	-	-	-	-	-	-
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC	12,134	12,134	12,134	12,134	12,134	12,134	12,134
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	100%	100%	100%	100%	100%	100%	100%
REC's Required due to RPS Requirements Adder		12,134	12,134	12,134	12,134	12,134	12,134	12,134
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	12,134	12,134	12,134	12,134	12,134	12,134	12,134
REC Inventory								
REC Obtained:								
Generation Based								
Banked from Prior Year	REC	-	-	-	-	-	-	-
Future Year REC's (up to 120 days)	REC	-	-	-	-	-	-	-
Future Year Incentive REC's (up to 120 days)	REC	-	-	-	-	-	-	-
Less: REC's Allocated to Prior Year	REC	-	-	-	-	-	-	-
Less: Incentive REC's Allocated to Prior Year	REC	-	-	-	-	-	-	-
Build/BOT	REC	-	-	-	-	-	-	-
PPA	REC	16,389	16,389	16,389	16,389	16,389	16,389	16,389
Subtotal (1)	REC	16,389	16,389	16,389	16,389	16,389	16,389	16,389
Purchase	REC	-	-	-	-	-	-	-
Incentive (SB 213 Sec 39 (2))	REC	1,311	1,311	1,311	1,311	1,311	1,311	1,311
Subtotal (2)	REC	17,700	17,700	17,700	17,700	17,700	17,700	17,700
Less: Sold	REC	(5,566)	(5,566)	(5,566)	(5,566)	(5,566)	(5,566)	(5,566)
Less: Retired for Compliance	REC	(12,134)	(12,134)	(12,134)	(12,134)	(12,134)	(12,134)	(12,134)
Less: Expired	REC	-	-	-	-	-	-	-
Year-End REC Balance	REC	-	-	-	-	-	-	-
RPS Renewable Energy Credit Compliance Requirement								
Compliance Requirement	REC	12,134	12,134	12,134	12,134	12,134	12,134	12,134
Retired for Compliance	REC	12,134	12,134	12,134	12,134	12,134	12,134	12,134
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Revenue Requirement (Renewable only)								
Build/BOT	\$'s	-	-	-	-	-	-	-
PPA	\$'s	2,130,570	2,130,570	2,130,570	2,130,570	2,130,570	2,130,570	2,130,570
REC Purchases (Sales) @ \$10 Estimated per REC	\$'s	(55,660)	(55,660)	(55,660)	(55,660)	(55,660)	(55,660)	(55,660)
Total	\$'s	2,074,910	2,074,910	2,074,910	2,074,910	2,074,910	2,074,910	2,074,910
\$ Per MWH / (\$ Per REC if no Build/BOT or PPA for that year)	\$MWH or \$REC	117	117	117	117	117	117	117
Forecasted Transfer Price	\$/MWH	133	133	133	133	133	133	133
Amount recovered through PSCR (transfer price * volume of energy or REC's)	\$'	2,179,737	2,179,737	2,179,737	2,179,737	2,179,737	2,179,737	2,179,737
Incremental Cost of Compliance	\$'	(104,827)	(104,827)	(104,827)	(104,827)	(104,827)	(104,827)	(104,827)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

City of Hillsdale - MPSC Case U-16616

	Units MWH	2024	2025	2026	2027	2028	2029	Total/Plan to Date
Annual Retail Sales (Actual/Forecast 2011-2029)								
Sales Forecast (3-yr running average)	MWH							
RPS Renewable Energy Credit Compliance Requirement								
RE Portfolio (Sales Forecast Multiplied by 10%)	REC	12,134	12,134	12,134	12,134	12,134	12,134	
Baseline (REC from existing RE Supply (Pre RPS))	REC	-	-	-	-	-	-	
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC	12,134	12,134	12,134	12,134	12,134	12,134	
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	100%	100%	100%	100%	100%	100%	
REC's Required due to RPS Requirements Adder		12,134	12,134	12,134	12,134	12,134	12,134	
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	12,134	12,134	12,134	12,134	12,134	12,134	194,608

REC Inventory

REC Obtained:

Generation Based

Banked from Prior Year	REC	-	-	-	-	-	-	
Future Year REC's (up to 120 days)	REC	-	-	-	-	-	-	
Future Year Incentive REC's (up to 120 days)	REC	-	-	-	-	-	-	
Less: REC's Allocated to Prior Year	REC	-	-	-	-	-	-	
Less: Incentive REC's Allocated to Prior Year	REC	-	-	-	-	-	-	
Build/BOT	REC	-	-	-	-	-	-	
PPA	REC	16,389	16,389	16,389	16,389	16,389	16,389	250,752
Subtotal (1)	REC	16,389	16,389	16,389	16,389	16,389	16,389	250,752
Purchase	REC	-	-	-	-	-	-	4,713
Incentive (SB 213 Sec 39 (2))	REC	1,311	1,311	1,311	1,311	1,311	1,311	20,058
Subtotal (2)	REC	17,700	17,700	17,700	17,700	17,700	17,700	275,523
Less: Sold	REC	(5,566)	(5,566)	(5,566)	(5,566)	(5,566)	(5,566)	(80,915)
Less: Retired for Compliance	REC	(12,134)	(12,134)	(12,134)	(12,134)	(12,134)	(12,134)	(194,608)
Less: Expired	REC	-	-	-	-	-	-	(275,523)
Year-End REC Balance	REC	-	-	-	-	-	-	

RPS Renewable Energy Credit Compliance Requirement

Compliance Requirement	REC	12,134	12,134	12,134	12,134	12,134	12,134	
Retired for Compliance	REC	12,134	12,134	12,134	12,134	12,134	12,134	194,608
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	

Revenue Requirement (Renewable only)

Build/BOT	\$'	-	-	-	-	-	-	
PPA	\$'	2,130,570	2,130,570	2,130,570	2,130,570	2,130,570	2,130,570	32,597,760
REC Purchases (Sales) @ \$10 Estimated per REC	\$'	(55,660)	(55,660)	(55,660)	(55,660)	(55,660)	(55,660)	(762,020)
Total	\$'	2,074,910	2,074,910	2,074,910	2,074,910	2,074,910	2,074,910	31,835,740
\$ Per MWH / (\$ Per REC if no Build/BOT or PPA for that year)	\$MWH or \$REC	117	117	117	117	117	117	

Forecasted Transfer Price

Amount recovered through PSCR (transfer price * volume of energy or REC's)	\$'	2,179,737	2,179,737	2,179,737	2,179,737	2,179,737	2,179,737	33,976,845
Incremental Cost of Compliance	\$'	(104,827)	(104,827)	(104,827)	(104,827)	(104,827)	(104,827)	(2,141,105)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

City of Marshall - MPSC Case U-16622

	Units	2009	2010	2011	2012	2013	2014	2015	2016
	MWH	103,128	107,890	106,630	107,413	107,950	108,490		
Annual Retail Sales (Actual/Forecast 2011-2029)									
Sales Forecast (3-yr running average)	MWH				105,883	107,311	107,331	107,951	
RPS Renewable Energy Credit Compliance Requirement									
RE Portfolio (Sales Forecast Multiplied by 10%)	REC				10,588	10,731	10,733	10,795	10,795
Baseline (REC from existing RE Supply (Pre RPS))	REC				1,318	1,318	1,318	1,318	1,318
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC				9,270	9,413	9,415	9,477	9,477
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	0%	0%	0%	20%	33%	50%	100%	
REC's Required due to RPS Requirements Adder	REC	-	-	-	1,854	3,106	4,708	9,477	9,477
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	-	-	-	3,172	4,424	6,026	10,795	10,795

REC Inventory

REC Obtained:

Generation Based

Banked from Prior Year	REC	1,843	3,508	5,108	-	-	-	-	-
Future Year REC's (up to 120 days)	REC			483	1,832	4,979	-	-	-
Future Year Incentive REC's (up to 120 days)	REC			50	158	-	-	-	-
Less: REC's Allocated to Prior Year	REC				(483)	(1,832)	(4,979)	-	-
Less: Incentive REC's Allocated to Prior Year	REC				(50)	(158)	-	-	-
Build/BOT	REC	1,675	1,512	1,450	1,450	1,450	1,450	1,450	1,450
PPA	REC	-	-	-	-	-	4,046	13,486	13,486
Subtotal (1)	REC	1,675	3,355	4,958	7,091	2,907	8,485	9,957	14,936
Purchase	REC	-	-	-	-	1,367	-	-	-
Incentive (SB 213 Sec 39 (2))	REC	168	153	150	150	150	474	1,229	1,229
Subtotal (2)	REC	1,843	3,508	5,108	7,241	4,424	8,959	11,186	16,165
Less: Sold	REC	-	-	-	(4,069)	-	(2,933)	(391)	(5,370)
Less: Retired for Compliance	REC	-	-	-	(3,172)	(4,424)	(6,026)	(10,795)	(10,795)
Less: Expired	REC	-	-	-	-	-	-	-	-
Year-End REC Balance	REC	1,843	3,508	5,108	-	-	-	-	-

RPS Renewable Energy Credit Compliance Requirement

Compliance Requirement	REC			3,172	4,424	6,026	10,795	10,795
Retired for Compliance	REC			3,172	4,424	6,026	10,795	10,795
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage			3.00%	4.12%	5.61%	10.00%	10.00%

Revenue Requirement (Renewable only)

Build/BOT	\$'	-	-	-	-	-	-	-
PPA	\$'	-		175,327	997,923	1,105,910	1,753,180	
REC Purchases (Sales) @ \$10 Estimated per REC	\$'		(40,690)	13,670	(29,330)	(3,910)	(53,700)	
Total	\$'		(40,690)	188,997	968,593	1,102,000	1,699,480	
\$ Per MWH/ (\$ Per REC if no Build/BOT or PPA for that year)	\$MWH or \$REC		(19)	43	108	99	105	

Forecasted Transfer Price

Amount recoved through PSCR (transfer price * volume of energy or REC's)	\$'	257,089	554,078	1,149,519	1,324,281	1,986,488
Incremental Cost of Compliance	\$'	(297,779)	(365,081)	(180,926)	(222,281)	(287,008)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

City of Marshall - MPSC Case U-16622

	Units MWH	2017	2018	2019	2020	2021	2022	2023
Annual Retail Sales (Actual/Forecast 2011-2029)								
Sales Forecast (3-yr running average)	MWH							
RPS Renewable Energy Credit Compliance Requirement								
RE Portfolio (Sales Forecast Multiplied by 10%)	REC	10,795	10,795	10,795	10,795	10,795	10,795	10,795
Baseline (REC from existing RE Supply (Pre RPS))	REC	1,318	1,318	1,318	1,318	1,318	1,318	1,318
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC	9,477	9,477	9,477	9,477	9,477	9,477	9,477
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	100%	100%	100%	100%	100%	100%	100%
REC's Required due to RPS Requirements Adder	REC	9,477	9,477	9,477	9,477	9,477	9,477	9,477
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	10,795	10,795	10,795	10,795	10,795	10,795	10,795
REC Inventory								
REC Obtained:								
Generation Based								
Banked from Prior Year	REC	-	-	-	-	-	-	-
Future Year REC's (up to 120 days)	REC	-	-	-	-	-	-	-
Future Year Incentive REC's (up to 120 days)	REC	-	-	-	-	-	-	-
Less: REC's Allocated to Prior Year	REC	-	-	-	-	-	-	-
Less: Incentive REC's Allocated to Prior Year	REC	-	-	-	-	-	-	-
Build/BOT	REC	1,450	1,450	1,450	1,450	1,450	1,450	1,450
PPA	REC	13,486	13,486	13,486	13,486	13,486	13,486	13,486
Subtotal (1)	REC	14,936	14,936	14,936	14,936	14,936	14,936	14,936
Purchase	REC	-	-	-	-	-	-	-
Incentive (SB 213 Sec 39 (2))	REC	1,229	1,229	1,229	1,229	1,229	1,229	1,229
Subtotal (2)	REC	16,165	16,165	16,165	16,165	16,165	16,165	16,165
Less: Sold	REC	(5,370)	(5,370)	(5,370)	(5,370)	(5,370)	(5,370)	(5,370)
Less: Retired for Compliance	REC	(10,795)	(10,795)	(10,795)	(10,795)	(10,795)	(10,795)	(10,795)
Less: Expired	REC	-	-	-	-	-	-	-
Year-End REC Balance	REC	-	-	-	-	-	-	-
RPS Renewable Energy Credit Compliance Requirement								
Compliance Requirement	REC	10,795	10,795	10,795	10,795	10,795	10,795	10,795
Retired for Compliance	REC	10,795	10,795	10,795	10,795	10,795	10,795	10,795
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Revenue Requirement (Renewable only)								
Build/BOT	\$'s	-	-	-	-	-	-	-
PPA	\$'s	1,753,180	1,753,180	1,753,180	1,753,180	1,753,180	1,753,180	1,753,180
REC Purchases (Sales) @ \$10 Estimated per REC	\$'s	(53,700)	(53,700)	(53,700)	(53,700)	(53,700)	(53,700)	(53,700)
Total	\$'s	1,699,480	1,699,480	1,699,480	1,699,480	1,699,480	1,699,480	1,699,480
\$ Per MWH / (\$ Per REC if no Build/BOT or PPA for that year)	\$MWH or \$REC	105	105	105	105	105	105	105
Forecasted Transfer Price	\$/MWH	133	133	133	133	133	133	133
Amount recovered through PSCR (transfer price * volume of energy or REC's)	\$'	1,986,488	1,986,488	1,986,488	1,986,488	1,986,488	1,986,488	1,986,488
Incremental Cost of Compliance	\$'	(287,008)	(287,008)	(287,008)	(287,008)	(287,008)	(287,008)	(287,008)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

City of Marshall - MPSC Case U-16622

	Units MWH	2024	2025	2026	2027	2028	2029	Total/Plan to Date
Annual Retail Sales (Actual/Forecast 2011-2029)								
Sales Forecast (3-yr running average)	MWH							
RPS Renewable Energy Credit Compliance Requirement								
RE Portfolio (Sales Forecast Multiplied by 10%)	REC	10,795	10,795	10,795	10,795	10,795	10,795	
Baseline (REC from existing RE Supply (Pre RPS))	REC	1,318	1,318	1,318	1,318	1,318	1,318	
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC	9,477	9,477	9,477	9,477	9,477	9,477	
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	100%	100%	100%	100%	100%	100%	
REC's Required due to RPS Requirements Adder	REC	9,477	9,477	9,477	9,477	9,477	9,477	
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	10,795	10,795	10,795	10,795	10,795	10,795	175,547
REC Inventory								
REC Obtained:								
<u>Generation Based</u>								
Banked from Prior Year	REC	-	-	-	-	-	-	
Future Year REC's (up to 120 days)	REC	-	-	-	-	-	-	
Future Year Incentive REC's (up to 120 days)	REC	-	-	-	-	-	-	
Less: REC's Allocated to Prior Year	REC	-	-	-	-	-	-	
Less: Incentive REC's Allocated to Prior Year	REC	-	-	-	-	-	-	
Build/BOT	REC	1,450	1,450	1,450	1,450	1,450	1,450	30,737
PPA	REC	13,486	13,486	13,486	13,486	13,486	13,486	206,336
Subtotal (1)	REC	14,936	14,936	14,936	14,936	14,936	14,936	237,073
Purchase	REC	-	-	-	-	-	-	1,367
Incentive (SB 213 Sec 39 (2))	REC	1,229	1,229	1,229	1,229	1,229	1,229	19,680
Subtotal (2)	REC	16,165	16,165	16,165	16,165	16,165	16,165	258,120
Less: Sold	REC	(5,370)	(5,370)	(5,370)	(5,370)	(5,370)	(5,370)	(82,573)
Less: Retired for Compliance	REC	(10,795)	(10,795)	(10,795)	(10,795)	(10,795)	(10,795)	(175,547)
Less: Expired	REC	-	-	-	-	-	-	(258,120)
Year-End REC Balance	REC	-	-	-	-	-	-	
RPS Renewable Energy Credit Compliance Requirement								
Compliance Requirement	REC	10,795	10,795	10,795	10,795	10,795	10,795	
Retired for Compliance	REC	10,795	10,795	10,795	10,795	10,795	10,795	175,547
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	
Revenue Requirement (Renewable only)								
Build/BOT	\$'s	-	-	-	-	-	-	
PPA	\$'s	1,753,180	1,753,180	1,753,180	1,753,180	1,753,180	1,753,180	26,823,680
REC Purchases (Sales) @ \$10 Estimated per REC	\$'s	(53,700)	(53,700)	(53,700)	(53,700)	(53,700)	(53,700)	(812,060)
Total	\$'s	1,699,480	1,699,480	1,699,480	1,699,480	1,699,480	1,699,480	26,011,620
\$ Per MWH / (\$ Per REC if no Build/BOT or PPA for that year)	\$MWH or \$REC	105	105	105	105	105	105	
Forecasted Transfer Price	\$/MWH	133	133	133	133	133	133	
Amount recovered through PSCR (transfer price * volume of energy or REC's)	\$'	1,986,488	1,986,488	1,986,488	1,986,488	1,986,488	1,986,488	31,095,799
Incremental Cost of Compliance	\$'	(287,008)	(287,008)	(287,008)	(287,008)	(287,008)	(287,008)	(5,084,179)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

Village of Union City - MPSC Case U-16636

	Units	2009	2010	2011	2012	2013	2014	2015	2016
	MWH	14,232	15,412	15,547	15,421	15,498	15,576		
Annual Retail Sales (Actual/Forecast 2011-2029)									
Sales Forecast (3-yr running average)	MWH				15,064	15,460	15,489	15,498	
RPS Renewable Energy Credit Compliance Requirement									
RE Portfolio (Sales Forecast Multiplied by 10%)	REC				1,506	1,546	1,549	1,550	1,550
Baseline (REC from existing RE Supply (Pre RPS))	REC				1,625	1,625	1,625	1,625	1,625
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC				(119)	(79)	(76)	(75)	(75)
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	0%	0%	0%	20%	33%	50%	100%	100%
REC's Required due to RPS Requirements Adder	REC	-	-	-	(119)	(79)	(76)	(75)	(75)
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	-	-	-	1,506	1,546	1,549	1,550	1,550
REC Inventory									
REC Obtained:									
Generation Based									
Banked from Prior Year	REC				1,856	3,696	5,496	-	-
Future Year REC's (up to 120 days)	REC				-	-	-	-	-
Future Year Incentive REC's (up to 120 days)	REC				-	-	-	-	-
Less: REC's Allocated to Prior Year	REC				-	-	-	-	-
Less: Incentive REC's Allocated to Prior Year	REC				-	-	-	-	-
Build/BOT	REC	1,698	1,681	1,650	1,650	1,650	1,650	1,650	1,650
PPA	REC	-	-	-	-	-	-	-	-
Subtotal (1)	REC	1,698	3,537	5,346	7,146	1,650	1,650	1,650	1,650
Purchase	REC	-	-	-	-	-	-	-	-
Incentive (SB 213 Sec 39 (2))	REC	158	159	150	150	150	150	150	150
Subtotal (2)	REC	1,856	3,696	5,496	7,296	1,800	1,800	1,800	1,800
Less: Sold	REC	-	-	-	(5,790)	(254)	(251)	(250)	(250)
Less: Retired for Compliance	REC	-	-	-	(1,506)	(1,546)	(1,549)	(1,550)	(1,550)
Less: Expired	REC	-	-	-	-	-	-	-	-
Year-End REC Balance	REC	1,856	3,696	5,496	-	-	-	-	-
RPS Renewable Energy Credit Compliance Requirement									
Compliance Requirement	REC				1,506	1,546	1,549	1,550	1,550
Retired for Compliance	REC				1,506	1,546	1,549	1,550	1,550
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage				10.00%	10.00%	10.00%	10.00%	10.00%
Revenue Requirement (Renewable only)									
Build/BOT	\$'s				132,000	132,000	132,000	132,000	132,000
PPA	\$'s				-	-	-	-	-
REC Purchases (Sales) @ \$10 Estimated per REC	\$'s				(57,900)	(2,540)	(2,510)	(2,500)	(2,500)
Total	\$'s				74,100	129,460	129,490	129,500	129,500
\$ Per MWH / (\$ Per REC if no Build/BOT or PPA for that year)	\$MWH or \$REC				41	72	72	72	72
Forecasted Transfer Price	\$/MWH				133	133	133	133	133
Amount recovered through PSCR (transfer price * volume of energy or REC's)	\$'				219,450	219,450	219,450	219,450	219,450
Incremental Cost of Compliance	\$'				(145,350)	(89,990)	(89,960)	(89,950)	(89,950)

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

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	Units MWH	2017	2018	2019	2020	2021	2022	2023	2024
Annual Retail Sales (Actual/Forecast 2011-2029)									
Sales Forecast (3-yr running average)	MWH								
RPS Renewable Energy Credit Compliance Requirement									
RE Portfolio (Sales Forecast Multiplied by 10%)	REC	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
Baseline (REC from existing RE Supply (Pre RPS))	REC	1,625	1,625	1,625	1,625	1,625	1,625	1,625	1,625
Additional REC necessary to meet Compliance (RE Portfolio Less Baseline)	REC	(75)	(75)	(75)	(75)	(75)	(75)	(75)	(75)
RPS Requirements Adder (2012: 20%, 2013: 33%, 2014: 50%, 2015: 100%) (ie: 20% of Additional REC necessary)	REC	100%	100%	100%	100%	100%	100%	100%	100%
REC's Required due to RPS Requirements Adder	REC	(75)	(75)	(75)	(75)	(75)	(75)	(75)	(75)
Compliance Requirement (Sum of RPS Requirements Adder above and Baseline)	REC	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
REC Inventory									
REC Obtained:									
Generation Based									
Banked from Prior Year	REC	-	-	-	-	-	-	-	-
Future Year REC's (up to 120 days)	REC	-	-	-	-	-	-	-	-
Future Year Incentive REC's (up to 120 days)	REC	-	-	-	-	-	-	-	-
Less: REC's Allocated to Prior Year	REC	-	-	-	-	-	-	-	-
Less: Incentive REC's Allocated to Prior Year	REC	-	-	-	-	-	-	-	-
Build/BOT	REC	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650
PPA	REC	-	-	-	-	-	-	-	-
Subtotal (1)	REC	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650
Purchase	REC	-	-	-	-	-	-	-	-
Incentive (SB 213 Sec 39 (2))	REC	150	150	150	150	150	150	150	150
Subtotal (2)	REC	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800
Less: Sold	REC	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)
Less: Retired for Compliance	REC	(1,550)	(1,550)	(1,550)	(1,550)	(1,550)	(1,550)	(1,550)	(1,550)
Less: Expired	REC	-	-	-	-	-	-	-	-
Year-End REC Balance	REC	-	-	-	-	-	-	-	-
RPS Renewable Energy Credit Compliance Requirement									
Compliance Requirement	REC	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
Retired for Compliance	REC	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Revenue Requirement (Renewable only)									
Build/BOT	\$'s	132,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000
PPA	\$'s	-	-	-	-	-	-	-	-
REC Purchases (Sales) @ \$10 Estimated per REC	\$'s	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)
Total	\$'s	129,500	129,500	129,500	129,500	129,500	129,500	129,500	129,500
\$ Per MWH / (\$ Per REC if no Build/BOT or PPA for that year)	\$/MWH or \$/REC	72	72	72	72	72	72	72	72
Forecasted Transfer Price									
Amount recoved through PSCR (transfer price * volume of energy or REC's)	\$/MWH	133	133	133	133	133	133	133	133
Incremental Cost of Compliance	\$/s	219,450	219,450	219,450	219,450	219,450	219,450	219,450	219,450

MUNICIPALLY OWNED ELECTRIC UTILITIES - RENEWABLE ENERGY PLAN SURCHARGE AND COMPLIANCE SUMMARY

Attachment B - Renewable Energy Plan Surcharge Summary

Village of Union City - MPSC Case U-16636

REC Inventory

REC Obtained:

Generation Based

Banked from Prior Year	REC	-	-	-	-	-
Future Year REC's (up to 120 days)	REC	-	-	-	-	-
Future Year Incentive REC's (up to 120 days)	REC	-	-	-	-	-
Less: REC's Allocated to Prior Year	REC	-	-	-	-	-
Less: Incentive REC's Allocated to Prior Year	REC	-	-	-	-	-
Build/BOT	REC	1,650	1,650	1,650	1,650	1,650
PPA	REC	-	-	-	-	-
<i>Subtotal (1)</i>	<i>REC</i>	<i>1,650</i>	<i>1,650</i>	<i>1,650</i>	<i>1,650</i>	<i>34,729</i>
Purchase	REC	-	-	-	-	-
Incentive (SB 213 Sec 39 (2))	REC	150	150	150	150	150
<i>Subtotal (2)</i>	<i>REC</i>	<i>1,800</i>	<i>1,800</i>	<i>1,800</i>	<i>1,800</i>	<i>37,896</i>
Less: Sold	REC	(250)	(250)	(250)	(250)	(250)
Less: Retired for Compliance	REC	(1,550)	(1,550)	(1,550)	(1,550)	(1,550)
Less: Expired	REC	-	-	-	-	(37,896)
Year-End REC Balance	REC	-	-	-	-	-

RPS Renewable Energy Credit Compliance Requirement

Compliance Requirement	REC	1,550	1,550	1,550	1,550	1,550
Retired for Compliance	REC	1,550	1,550	1,550	1,550	1,550
REC Compliance Percentage (Retired for Compliance/Sales Forecast)	Percentage	10.00%	10.00%	10.00%	10.00%	10.00%

Revenue Requirement (Renewable only)

Experimental Techniques

Amount received through BCSR (transfer price * volume of energy or BECIs) €113.450 €113.450 €113.450 €113.450 €113.450

Incremental Cost of Compliance

Amount recovered through PSCR (transfer price * volume of energy or REC's)	\$'s	219,450	219,450	219,450	219,450	219,450	3,950,100
Incremental Cost of Compliance	\$'s	(89,950)	(89,950)	(89,950)	(89,950)	(89,950)	(1,674,550)