Net metering ratepayer impacts, NorthWestern Energy customers, 2014

\$0.038/kWh] Exported wind/hydro energy value at 2014 Mid-C average [exported wind/hydro sp.063 energy (kWh) x \$0.038/kWh] Avoided T&D line losses, residential customers. [Line loss rate (8.5%) x residential production behind the meter x residential retail electricity rate] Avoided T&D line losses, commercial customers. [Line loss rate (7.5%) x total should be a special customers. [Line loss rate (7.5%) x total should be a special customers. [Line loss rate (7.5%) x total should be a special production behind the meter x commercial retail electricity rate] Unclaimed BPA residential exchange credit, 2014 (NWE estimate) Excess net metering production sacrificed to utility, 2014-2015 (provided by NWE) \$20,543 Avoided hazardous and criteria air pollutant control costs Avoided transmission and distribution system capacity, operations and maintenance Avoided load following, regulation and frequency response Avoided power plant operations and maintenance costs Avoided fuel price hedging costs Avoided generation capacity investments or purchases Avoided generation capacity investments or purchases Avoided renewable energy standard compliance costs Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Totals Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)	Benefits and Costs	Amount
\$0.038/kWh] Exported wind/hydro energy value at 2014 Mid-C average [exported wind/hydro \$9,063 energy (kWh) x \$0.038/kWh] Avoided T&D line losses, residential customers. [Line loss rate (8.5%) x residential production behind the meter x residential retail electricity rate] Avoided T&D line losses, commercial customers. [Line loss rate (7.5%) x total x \$16,758 commercial production behind the meter x commercial retail electricity rate] Unclaimed BPA residential exchange credit, 2014 (NWE estimate) Excess net metering production sacrificed to utility, 2014-2015 (provided by NWE) \$20,543 Avoided hazardous and criteria air pollutant control costs Avoided transmission and distribution system capacity, operations and maintenance Avoided load following, regulation and frequency response Avoided power plant operations and maintenance costs Avoided fuel price hedging costs Avoided generation capacity investments or purchases Avoided renewable energy standard compliance costs Costs Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$22,683) Totals Total ratepayer benefits \$150,874 Total ratepayer costs (\$110,080)	Benefits	
energy (kWh) x \$0.038/kWh] Avoided T&D line losses, residential customers. [Line loss rate (8.5%) x residential \$30,021 production behind the meter x residential retail electricity rate] Avoided T&D line losses, commercial customers. [Line loss rate (7.5%) x total \$16,758 commercial production behind the meter x commercial retail electricity rate] Unclaimed BPA residential exchange credit, 2014 (NWE estimate) \$25,668 Excess net metering production sacrificed to utility, 2014-2015 (provided by NWE) \$20,543 Avoided hazardous and criteria air pollutant control costs not quantified Avoided transmission and distribution system capacity, operations and maintenance not quantified Avoided load following, regulation and frequency response not quantified Avoided power plant operations and maintenance costs not quantified Avoided fuel price hedging costs not quantified Avoided generation capacity investments or purchases not quantified Avoided renewable energy standard compliance costs not quantified Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Totals Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)		\$48,821
production behind the meter x residential retail electricity rate] Avoided T&D line losses, commercial customers. [Line loss rate (7.5%) x total \$16,758 commercial production behind the meter x commercial retail electricity rate] Unclaimed BPA residential exchange credit, 2014 (NWE estimate) \$25,668 Excess net metering production sacrificed to utility, 2014-2015 (provided by NWE) \$20,543 Avoided hazardous and criteria air pollutant control costs not quantified Avoided transmission and distribution system capacity, operations and maintenance not quantified Avoided load following, regulation and frequency response not quantified Avoided power plant operations and maintenance costs not quantified Avoided fuel price hedging costs not quantified Avoided generation capacity investments or purchases not quantified Avoided renewable energy standard compliance costs not quantified Avoided renewable energy standard compliance costs (\$110,000) ear data) Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Totals Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)		\$9,063
commercial production behind the meter x commercial retail electricity rate] Unclaimed BPA residential exchange credit, 2014 (NWE estimate) \$25,668 Excess net metering production sacrificed to utility, 2014-2015 (provided by NWE) \$20,543 Avoided hazardous and criteria air pollutant control costs not quantified Avoided transmission and distribution system capacity, operations and maintenance not quantified Avoided load following, regulation and frequency response not quantified Avoided power plant operations and maintenance costs not quantified Avoided fuel price hedging costs not quantified Avoided generation capacity investments or purchases not quantified Avoided renewable energy standard compliance costs not quantified Avoided renewable energy standard compliance costs (\$110,000) Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Totals Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)		\$30,021
Excess net metering production sacrificed to utility, 2014-2015 (provided by NWE) Avoided hazardous and criteria air pollutant control costs Avoided transmission and distribution system capacity, operations and maintenance Avoided load following, regulation and frequency response Avoided power plant operations and maintenance costs Avoided fuel price hedging costs Avoided generation capacity investments or purchases Avoided renewable energy standard compliance costs Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)		\$16,758
Avoided hazardous and criteria air pollutant control costs Avoided transmission and distribution system capacity, operations and maintenance Avoided load following, regulation and frequency response Avoided power plant operations and maintenance costs Avoided fuel price hedging costs Avoided generation capacity investments or purchases Avoided renewable energy standard compliance costs Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Totals Total ratepayer benefits \$150,874	Unclaimed BPA residential exchange credit, 2014 (NWE estimate)	\$25,668
Avoided transmission and distribution system capacity, operations and maintenance Avoided load following, regulation and frequency response Avoided power plant operations and maintenance costs Avoided fuel price hedging costs Avoided generation capacity investments or purchases Avoided renewable energy standard compliance costs Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Total ratepayer benefits \$150,874 Total ratepayer costs	Excess net metering production sacrificed to utility, 2014-2015 (provided by NWE)	\$20,543
Avoided load following, regulation and frequency response Avoided power plant operations and maintenance costs Avoided fuel price hedging costs Avoided generation capacity investments or purchases Avoided renewable energy standard compliance costs Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Totals Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)	Avoided hazardous and criteria air pollutant control costs	not quantified
Avoided power plant operations and maintenance costs Avoided fuel price hedging costs Avoided generation capacity investments or purchases Avoided renewable energy standard compliance costs Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Totals Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)	Avoided transmission and distribution system capacity, operations and maintenance	not quantified
Avoided fuel price hedging costs Avoided generation capacity investments or purchases Avoided renewable energy standard compliance costs Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)	Avoided load following, regulation and frequency response	not quantified
Avoided generation capacity investments or purchases Avoided renewable energy standard compliance costs Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Totals Total ratepayer benefits \$150,874 (\$112,683)	Avoided power plant operations and maintenance costs	not quantified
Avoided renewable energy standard compliance costs Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] Totals Total ratepayer benefits \$150,874 (\$112,683)	Avoided fuel price hedging costs	not quantified
Costs Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Totals Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)	Avoided generation capacity investments or purchases	not quantified
Lost revenue due to net metering (fixed T&D and supply costs, NWE 2013-2014 tracker year data) Integration costs. [\$0.40/MWh x total production] (\$2,683) Totals Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)	Avoided renewable energy standard compliance costs	not quantified
year data) Integration costs. [\$0.40/MWh x total production] Totals Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)	Costs	
Totals Total ratepayer benefits \$150,874 Total ratepayer costs \$(\$112,683)		(\$110,000)
Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)	Integration costs. [\$0.40/MWh x total production]	(\$2,683)
Total ratepayer benefits \$150,874 Total ratepayer costs (\$112,683)	Totals	
Total ratepayer costs (\$112,683)		\$150.874
	· ·	
	Net ratepayer impact	\$38,191

Submitted by the Montana Renewable Energy Association Energy and Telecommunications Interim Committee, September 11, 2015