

Rocky Mountain Power
Exhibit RMP___(RMM-2SR)
Docket No. 16-035-36
Witness: Robert M. Meredith

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Surrebuttal Testimony of Robert M. Meredith
Incremental Simple Payback for a Plug-In Electric Vehicle under Current
and Proposed EV TOU Pilot Rates

May 2017

Rocky Mountain Power Incremental Simple Payback for a Plug-In Electric Vehicle under Current and Proposed EV TOU Pilot Rates

	Proposed EV TOU Pilot Option 1	Proposed EV TOU Pilot Option 1 + 2.5¢ per kWh	Difference from 2.5¢ per kWh
Incremental Internal Combustion Engine (ICE) Vehicle Fuel Cost	\$71.52		
Incremental Plug-In Electric Vehicle (PEV) "Fuel" Cost	\$24.90	\$34.07	\$9.17
Savings from Fueling with Gasoline	\$46.62	\$37.45	-\$9.17
Simple Payback on a \$6,000 PEV (Years)	10.73	13.35	2.63

Assumptions

Average Monthly Usage (not including PEV)	698
PEV kWh (Off-Peak)	347
Average Miles per Year ¹	13,884
per Month	1,157
Price of gas per gallon ²	\$2.250
PEV Fuel Efficiency (kWh per Mile) ³	0.3
ICE fuel efficiency (mpg) ⁴	36.4

¹U.S. Department of Transportation Average Annual Miles per Vehicle for the year 2000. See: <http://www.fhwa.dot.gov/ohim/onh00/onh2p11.htm>

²Utah Average Gas Price as of January 24, 2017. See: <http://gasprices.aaa.com/?state=UT>

³EPA rating for 2015 Nissan Leaf is 30 kWh per 100 miles. See: <http://www.pluginamerica.org/drivers-seat/how-much-does-it-cost-charge-electric-car>

⁴New passenger vehicle fuel efficiency for 2014. See: http://www.rta.dot.gov/bts/sites/rita.dot.gov/bts/files/publications/national_transportation_statistics/html/table_04_23.html