

**Derivation of Metering Costs - State of South Dakota**

<b>OCCASIONAL DELIVERY ENERGY SERVICE</b>	
<b>STANDARD KWH METER</b>	<b>Single Phase</b>
(1) Installed Cost	\$91.95
(2) L.A.R.R.	9.59%
(3) Levelized Cost (1)*(2)	\$8.82
(4) Accounting Expenses \$/Cust/Yr	\$51.71
(5) Total Annual (3)+(4)	\$60.53
(6) Total Monthly (5)/12	\$5.04
	Proposed <input type="text" value="\$3.75"/>
	Current <input type="text" value="\$3.75"/>
<b>TIME OF DELIVERY ENERGY SERVICE</b>	
<b>TOD KW/KWH METER</b>	<b>Single Phase</b>
(7) Installed Cost	\$157.03
(8) Levelized Cost (7)*(2)	\$15.06
(9) Total Annual (8)+(4)	\$66.77
(10) Total Monthly (9)/12	\$5.56
	Proposed <input type="text" value="\$4.75"/>
	Current <input type="text" value="\$4.75"/>

Source:

- (1)(7) Data provided by NSP Metering Dept.
- (2) Based on cost of capital on page 4
- (4) Based on NSP ECCOSS Workpapers (Docket No. EL14-058).

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**Electric Operations - State of South Dakota**  
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**Derivation of Energy Payments - State of South Dakota**

**OCCASIONAL DELIVERY ENERGY SERVICE**

	Annual Average
(1) Estimated System Average Incremental Energy Costs for 2021 (¢/kWh)	[TRADE SECRET BEGINS ██████████]
(2) Energy Loss Factors	██████████ [TRADE SECRET ENDS]
(3) Estimated System Average Incremental Energy Costs Adjusted for Losses (1)/(2)	2.02
(4) In \$/KWh (3)/100	\$0.0202

**TIME OF DAY PURCHASE SERVICE**

	Annual On Peak	Annual Off Peak
(1) Estimated System Average Incremental Energy Costs for 2021 (¢/kWh)	[TRADE SECRET BEGINS ██████████]	██████████
(2) Energy Loss Factors	██████████	██████████ [TRADE SECRET ENDS]
(3) Estimated System Average Incremental Energy Costs Adjusted for Losses(1)/(2)	2.55	1.73
(4) In \$/KWh (3)/100	\$0.0255	\$0.0173

Source:

Incremental Energy Cost Data provided by Xcel Energy's Generation Modeling Services.

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**Calculation of Net Annual Avoided Capacity Costs**

[TRADE SECRET BEGINS]

(1) Completed Cost of C.T. Unit (2021 \$)	[REDACTED] /kW
(2) Inflation Net of Technical Progress	2.00%
(3) Average Service Life	40 Years
(4) Discount Rate (After Tax)	6.75%
Calculation of Marginal Capital Carry Charge Rate	
(5) Present Value of Revenue Requirements (2021)	[REDACTED] /kW
(6) Annuity Factor Adjustment for Inflation **	5.67%
(7) Present Value of Revenue Requirements Adjusted for Inflation (5)*(6)	[REDACTED] /kW
(8) Marginal Capital Carrying Charge Rate (7)/(1)	[REDACTED] /kW
(9) First Year Revenue Requirement (1)*(8)	[REDACTED] /kW
(10) Present Value at 6.75% for 0 years	[REDACTED] /kW
(11) Present Value of Average Annual Fuel Savings	[REDACTED] /kW
(12) Annual Avoided Capacity Cost (10)-(11)	[REDACTED] /kW
(13) Adjusted for 15% Reserve Margin (12)*1.15	[REDACTED] /kW
(14) Plus Fixed O & M \$/kW (2021 \$) (13)+O&M	[REDACTED] /kW
(15) Adjusted for losses (14)/0.9652	[REDACTED] /kW
(16) NET ANNUAL AVOIDED CAPACITY COST	\$56.78 /kW
(17) Net Annual Avoided Capacity Cost Average Over All Hours	0.65 ¢/kWh
[REDACTED]	
(18) In \$/KWh (17)/100	\$0.0065 /kWh

\*\*  $AC = (r-j)(1+j)^{t-1} [1 / (1-(1+j)^n / (1+r)^n)]$   
Where AC = Annual Charge in year t  
t = Year (=1)  
K = Total Present Value Cost of Original Investment  
r = Discount Rate (Overall Marginal Cost of Capital) (6.75%)  
j = Inflation Rate Net of Technology Progress (2.00%)  
n = Expected Service Life of Investment (40 Years)

O&M

[REDACTED]

[TRADE SECRET ENDS]

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COGENERATION AND SMALL POWER PRODUCTION FILING

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**Marginal Cost of Capital**

<i>(Before Tax)</i>	Capitalization Ratio (%)	Cost (%)	Weighted (%)
<b>[TRADE SECRET BEGINS]</b>			
Debt			
Preferred Equity			
Common Equity			
<b>TRADE SECRET ENDS]</b>			
<b>Weighted Average</b>	100.00%		7.22% *

<i>(After Tax)</i>	Capitalization Ratio (%)	Cost (%)	Weighted (%)
<b>[TRADE SECRET BEGINS]</b>			
Debt			
Preferred Equity			
Common Equity			
<b>TRADE SECRET ENDS]</b>			
<b>Weighted Average</b>	100.00%		6.75%

\* SD Commission approval of settlement in Docket No. EL14-058.

Source:

Information based on Company's 2014 Rate Case settlement (Confidential).