

Utility: Cooperative Light & Power

Year Basis: 2011 Test Year

Source: 2013 Rate and Cost of Service Study Update, Power System Engineering, Inc.

Line #	Description	Energy-Only Rates		Reference	Additional Notes
		Schedule #A Residential Service	Schedule #B Commercial & Industrial Service		
1	Rate Class: Revenue Requirements	\$ 5,591,258	\$ 936,300	CCOSS, Table 4.1	
2	Rate Class: Purchased Power Expense	\$ 3,123,188	\$ 628,395	CCOSS, Table 4.2	Includes purchased transmission serv
3					
4	Rate Class: Number of Customers	5,272	466	CCOSS, Pg. 17, Column (c)	Must be from CCOSS
5	Rate Class: Annual Energy kWh Sales	34,209,052	7,176,976	CCOSS, Pg. 17, Column (d)	Must be from CCOSS
6					
7	Rate Class: Customer Charge \$/mo	\$ 29.00	\$ 34.00	Current Rate Schedule	
8					
9	Solar Capacity Factor (DC nameplate rating)	15%	15%	15% NREL PVWatts calculator average of various locations in MN	
10					
11					
12					
13					
14		***FIXED ASSUMPTION***DO NOT CHANGE***			
15	<u>DG Nameplate Rating kW Allowance (No Charge)</u>				
16	Mean Annual Consumption	10,185		kWh per year	
17	1st Standard Deviation	4,555		kWh per year	
18	DG Capacity Factor (per DC rating)	15%		Per NREL PVWatts	
19	Annual Hours	8,760		per year	
20	DG kW Allowance	3.47		$L24 \div L25 \div L26$	
21	<b>DG kW Allowance - Rounded</b>	<b>3.50</b>	<b>3.50</b>	<b>3.50</b> kW per DG consumer	

**Cooperative Light & Power**  
**Grid Access Charge: Cost of Service and Rate Design**

(a)	(b)	(c)	(d)	(e)	(f)
Line	Description	Schedule #A Residential Service Summary	Schedule #B Commercial & Industrial Service		Notes
1	Monthly Grid Access Charge per kW				
2	First 3.5 kW (DC nameplate rating)	<i>No Charge</i>	<i>No Charge</i>	<i>No Charge</i>	
3	kW in Excess of 3.5 kW	\$ 2.03	\$ 1.80	\$ -	per kW (DC nameplate rating)
4	Not-to-Exceed	\$ 10.00	\$ 21.00	\$ -	per Month
5					
6	Equivalent to DG installation of:	8.4	15.2		kW (DC nameplate rating)
<b>Cost of Service and Rate Design Analysis</b>					
7	<u>1. Cost of Service Study: Distribution Fixed Costs Not Recovered by Rate</u>				
8	Annual Revenue Requirements	\$ 5,591,258	\$ 936,300	\$ -	CCOSS, Table 4.1
9	Less: Annual Purchased Power Expense	\$ 3,123,188	\$ 628,395	\$ -	CCOSS, Table 4.2
10	Annual Distribution Fixed Costs	\$ 2,468,070	\$ 307,905	\$ -	L8 - L9
11	Less: Annual Customer Charge Revenue	\$ 1,834,656	\$ 190,128	\$ -	L27 x customers x 12 months
12	Distribution Fixed Costs Recovered in Energy Rate	\$ 633,414	\$ 117,777	\$ -	L10 - L11
13	Annual Energy Sales (kWh)	÷ 34,209,052	7,176,976	-	CCOSS, Pg. 17, Column (d)
14	Distribution Fixed Costs Recovered in Energy Rate	= \$ 0.0185	\$ 0.0164	\$ -	L12 ÷ L13
15					
16	<u>2. Conversion to per kW Rate</u>				
17	DG Capacity Factor (per DC rating)	15%	15%	15%	Per NREL PVWatts
18	Average Hours per Month	730	730	730	365 x 24 ÷ 12
19	<b>Monthly Rate per DC Nameplate Rating kW-mo.</b>	<b>\$ 2.03</b>	<b>\$ 1.80</b>	<b>\$ -</b>	L14 x L17 x L18
20					
21	<u>3. DG Nameplate Rating kW Allowance (No Charge)</u>				
22		<b>3.50</b>	<b>3.50</b>	<b>3.50</b>	See footnote 1
23	<u>4. Monthly Charge Cap per DG Customer</u>				
24	Annual Distribution Fixed Costs	\$ 2,468,070	\$ 307,905	\$ -	L10
25	Number of Customers	5,272	466	-	CCOSS, Pg. 17, Column (c)
26	Distribution Fixed Costs per Customer per Month	\$ 39.01	\$ 55.06	\$ -	L24 ÷ L25 ÷ 12
27	Less: Current Monthly Customer Charge	\$ 29.00	\$ 34.00	\$ -	Per Current Rate Schedule
28	Monthly Charge Cap	\$ 10.01	\$ 21.06	\$ -	L26 - L27
29	<b>Monthly Charge Cap - Rounded</b>	<b>\$ 10.00</b>	<b>\$ 21.00</b>	<b>\$ -</b>	Round L28

1 Allowance (if any) represents installed kW associated with normal variance in residential average usage per customer at a 15.0% Capacity Factor.