



Overview of Minnesota Utility Standby Rates

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Presentation Focus

Provide an overview of the standby rate tariffs of the following electric utilities:

- ▶ Xcel Power
- ▶ Minnesota Power
- ▶ Otter Tail Power Company
- ▶ Dakota Electric Association (co-op)

For more detailed information visit the ERC report published April 2014:
<http://mn.gov/commerce/energy/images/SRNMPE-CHP-Opportunities.pdf>

Standby Rate Overview

Minnesota Standby Tariffs follow a similar construction:

- ▶ Monthly Customer Charge (\$/Month)
- ▶ Reservation Charge (\$/kW)
- ▶ Usage Charges (\$/kW & \$/kWh)

Xcel Power – Rate

Standby Tariff – Standby Service Rider (SSR)

SSR Service Offerings:

- ▶ Unscheduled Maintenance
- ▶ Scheduled Maintenance
- ▶ Non-Firm Standby Service

Xcel Power – Rate (cont.)

SSR Charge Components:

- ▶ Customer Charge
 - Monthly “access” fee – three types: Forced Outage, Planned Outage and Non-Firm

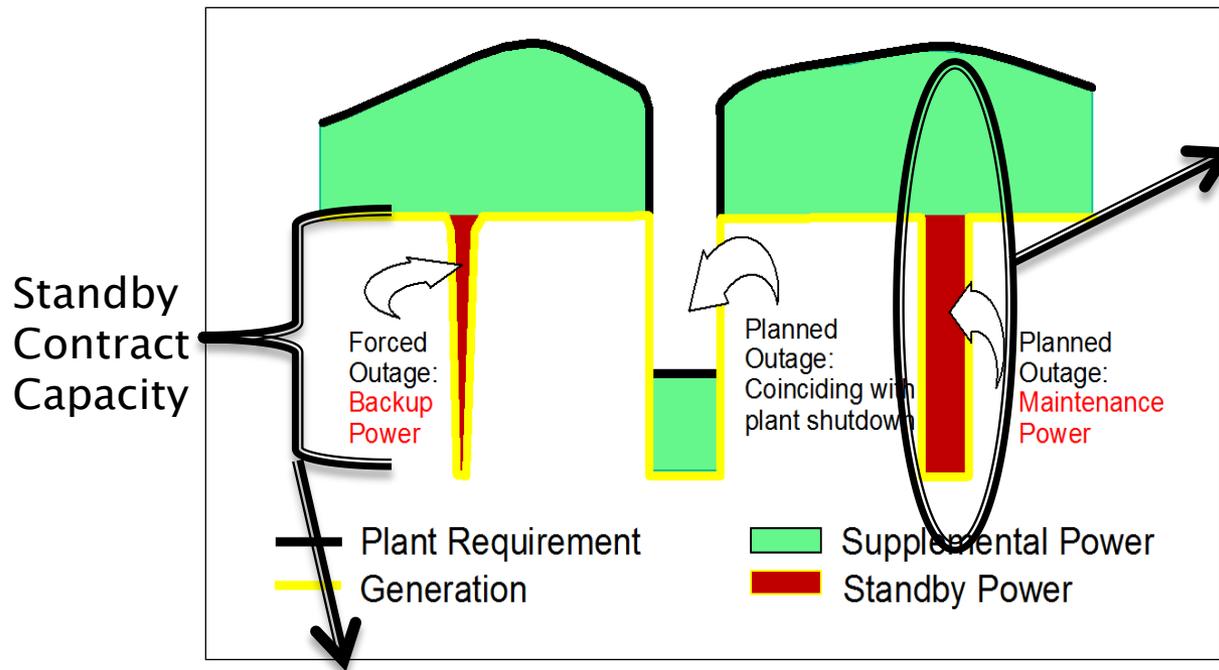
- ▶ Standby Contract Capacity Fee
 - Applies against, “the amount of load served by the customer’s alternative generation.” Customer sets capacity requirements.

- ▶ Usage Rate Demand Charge when standby is taken
 - 964 hour grace period – Equals an 11% Forced Outage Rate
 - After grace period the Demand Charge of the base tariff replaces the Reservation Rate.

- ▶ Usage Rate Energy Charge when standby is taken
 - Charged at the applicable rate of the base tariff to which the SSR is attached

Xcel Power – Rate (cont.)

Standby Tariff – Standby Service Rider (SSR)



During Outages:

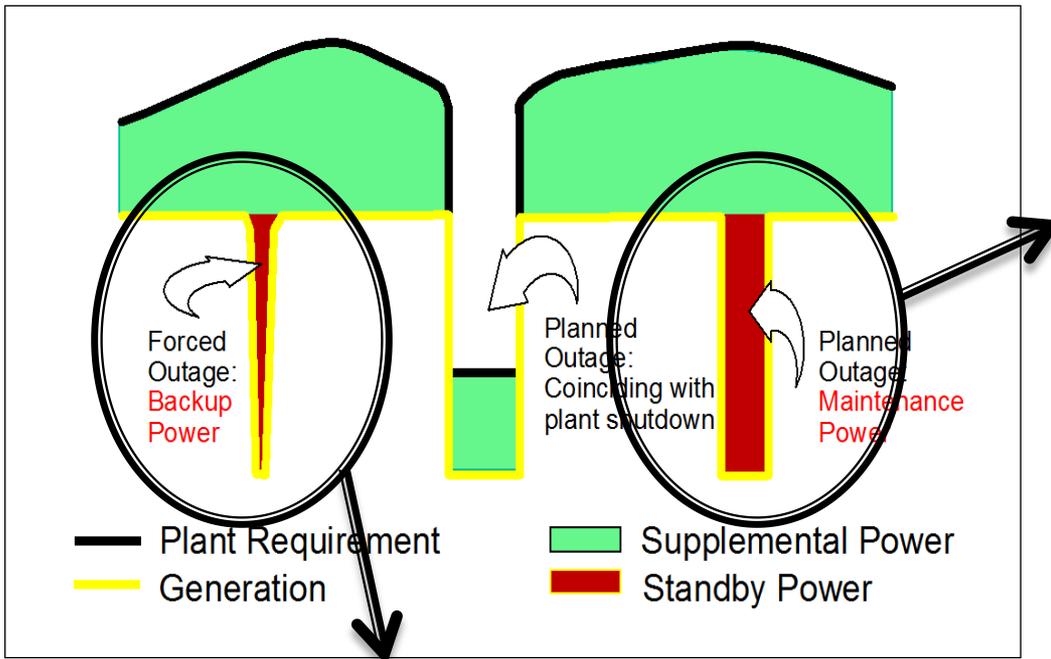
$$\begin{aligned} &\text{Base Tariff Demand} \\ &= \\ &\text{Total Metered Demand} \\ &- \\ &\text{Standby Contract Capacity} \end{aligned}$$

Amount of Standby Contract Capacity

- Can Differ Between Seasons
- Cannot be greater than the DG's nameplate capacity

Xcel Power – Rate (cont.)

Standby Tariff – Standby Service Rider (SSR)



- No usage demand charges
- Does not count against grace period

<u>Outage Length</u>	<u>Required Notice</u>
Less than 48 hours	24 hours
2 days to 30 days	7 days
Over 30 days	90 days

- < 10,000 kW : April, May, Oct. or Nov
- > 10,000 kW : Mutually agreed upon date.

- 964 Hour Grace Period from demand charges
- When exceeded, Demand Charges replace Reservation Charges
- kWh charged using Base Rate

Xcel Power – Rate (cont.)

Standby Tariff – Non-Firm Service

- All use of Standby must be approved prior to actual use
- Capacity charged using base rate demand charges
- Minimum 5 year contract which includes a one year trial period
- If Standby is used without approval the customer will be subject to the following:
 - Capacity charged using base rate demand charges
 - Firm unscheduled maintenance reservations fees applied retroactively to the previous 6 months
 - Two events in any 12 month period can result in customer switching to firm service

Xcel Power – Rate (cont.)

Standby Tariff – Standby Service Rider (SSR)

RESERVATION RATE

	<u>Firm Standby</u>		Non-Firm
	<u>Unscheduled Maintenance</u>	<u>Scheduled Maintenance</u>	<u>Standby</u>
Customer Charge per Month	\$24.61	\$24.61	\$24.61
Demand Charge per Month per kW of Contracted Standby Capacity			
Secondary Voltage Service	\$3.00	\$2.90	\$2.10
Primary Voltage Service	\$2.15	\$2.05	\$1.25
Transmission Transformed Voltage Service	\$1.50	\$1.40	\$0.60
Transmission Voltage Service	\$0.90	\$0.80	\$0.00
Hours per kW of Contracted Standby Capacity - Annual Grace Period Use of Unscheduled Standby, Exemption from the Demand Charge Component of the “Usage Rates” below.	964	964	0

Xcel Power – Outages

SSR Unscheduled Outages:

- ▶ For Firm customers Excel allocates a grace period of 964 hours.
- ▶ Use of this Grace Period will be measured in terms of Standby energy used by customer with the maximum amount of grace energy being the hours specified above times the contracted Standby capacity.
- ▶ For applying the demand component of the Usage Rates, the billing demand shall be the capacity actually used by the customer, when customer's generator is wholly or partly out of service. This amount of Standby capacity contracted for, less the actual capacity supplied by the customer's generating facilities (assuming it is operating, but not at full capacity) but not less than zero.

SSR Scheduled Outages:

- ▶ Increased demand from a scheduled outage (maintenance service) will not be considered as using the grace period allotment.
- ▶ < 10,000 kW : April, May, Oct. or Nov.
- ▶ > 10,000 kW : Mutually agreed upon date.

<u>Outage Length</u>	<u>Required Notice</u>
Less than 48 hours	24 hours
2 days to 30 days	7 days
Over 30 days	90 days

Xcel Power – Discussion

- ▶ Minimum 12 month term
- ▶ Photovoltaic Solar Credit
 - \$5.15 per kW per month when the 964 hour grace period is spent. This credit shall be applied to the applicable demand charge of the base tariff.
- ▶ Special Circumstances for unscheduled outages during a constrained capacity event.

Minnesota Power – Rate

RSS Service Offerings:

- ▶ Firm Standby Service
- ▶ Non-Firm Standby Service

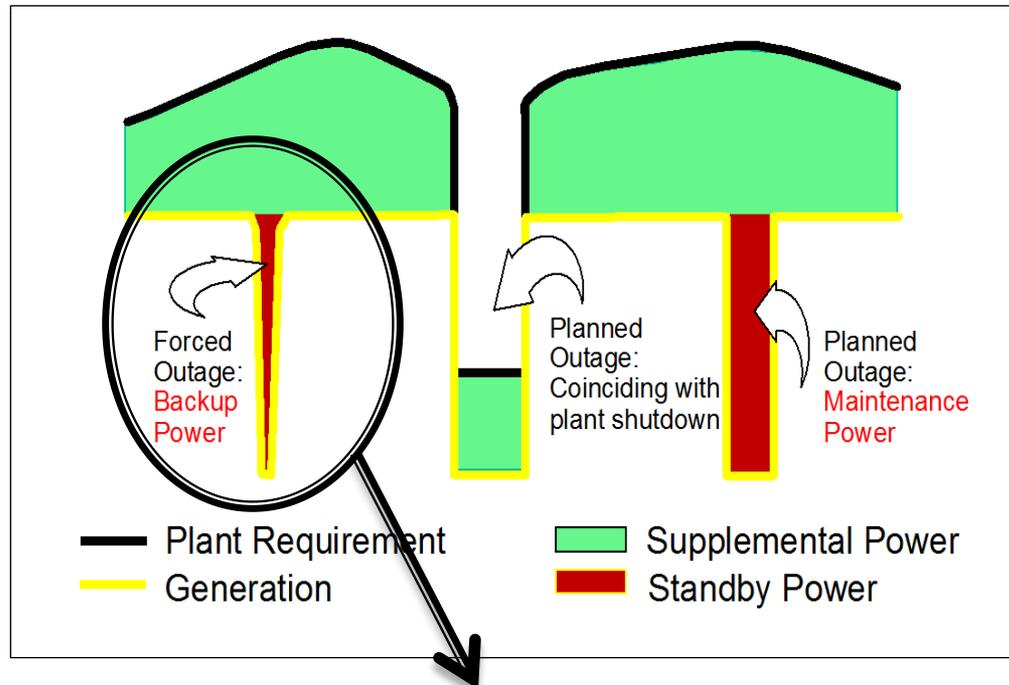
Minnesota Power – Rate (cont.)

RSS Charge Components:

- ▶ Standby Reservation Fee
 - Reserves Standby Service
- ▶ Standby Demand Usage Fee
 - Summer Peak
 - Winter Peak
 - Off-Peak
- ▶ Usage Rate Energy Charge when standby is taken
 - Charged at the applicable rate of the base tariff to which the RSS is attached

Minnesota Power – Rate (cont.)

Standby Tariff –



- 10 Years Old
- Rate Mechanics have never been tested
- MN Power Looking to revise their rate

- No demand charges when Contracted Standby Demand equals the nameplate capacity
- kWh charged at attached rate

Minnesota Power – Rate (cont.)

Customer shall pay a Standby Reservation Fee equal to the rate defined below times the Contracted Standby Demand.

Rate Schedule Voltage Level	Residential	General Service	Large Light & Power	Municipal Pumping	Large Power
Transmission	N/A	N/A	\$3.08	N/A	\$4.54
Primary Distribution	N/A	\$4.70	\$6.14	\$5.04	N/A
Secondary Distribution	\$4.27	\$6.93	\$9.74	\$7.25	N/A

There shall be no Standby Demand Usage Fee applied if:

- ▶ (i) Contracted Standby Demand equals the nameplate capacity rating of the distributed generation system;
- ▶ the actual demand supplied by the DG system is greater than the difference between the nameplate capacity of the DG system and the Contracted Standby Demand during each 15-minute period of the billing month.

Minnesota Power – Outages

Reservation Charge versus Usage Charge

- ▶ If a customer does not reserve 100% of their nameplate capacity then they must pay demand usage charges when their system goes offline.
- ▶ If outages can be controlled and minimized the CHP system operator can save a great deal of money

There are no stipulations for outage duration or allowable time against a demand usage charge.

Minnesota Power – Rate (cont.)

Standby Demand Usage Fees (\$/kW):

Summer-Peak (for standby service during June, July and August)

Rate Schedule Voltage Level	Residential	General Service	Large Light & Power	Municipal Pumping	Large Power
Transmission	N/A	N/A	\$16.84	N/A	\$24.75
Primary Distribution	N/A	\$12.21	19.90	\$15.55	N/A
Secondary Distribution	\$6.47	\$14.44	23.50	\$17.76	N/A

Winter-Peak (for standby service during December, January and February)

Rate Schedule Voltage Level	Residential	General Service	Large Light & Power	Municipal Pumping	Large Power
Transmission	N/A	N/A	\$10.89	N/A	\$16.00
Primary Distribution	N/A	\$8.96	\$13.95	\$11.00	N/A
Secondary Distribution	\$5.52	\$11.20	\$17.55	\$13.22	N/A

Minnesota Power – Rate (cont.)

Off-Peak (for standby service during March, April, May, September, October and November)

Rate Schedule Voltage Level	Residential	General Service	Large Light & Power	Municipal Pumping	Large Power
Transmission	N/A	N/A	\$4.94	N/A	\$7.25
Primary Distribution	N/A	\$5.71	\$8.00	\$6.46	N/A
Secondary Distribution	\$4.57	\$7.95	\$11.60	\$8.67	N/A

Standby Energy Usage Fees (¢/kWh):

Rate Schedule	Residential	General Service	Large Light & Power	Municipal Pumping	Large Power
	0.92	1.56	1.57	1.56	1.57

Customer shall pay a Standby Energy Usage Fee equal to the rate times the Standby Energy.

Otter Tail Power Co. – Rate

Standby Service (SS)

- ▶ Service Offerings:
- ▶ Firm Standby
- ▶ Non-Firm Standby

Otter Tail- Rate (cont.)

SS Charge Components:

- ▶ **Customer Charge**
 - Monthly “access” fee – Firm/Non-Firm by Voltage Class

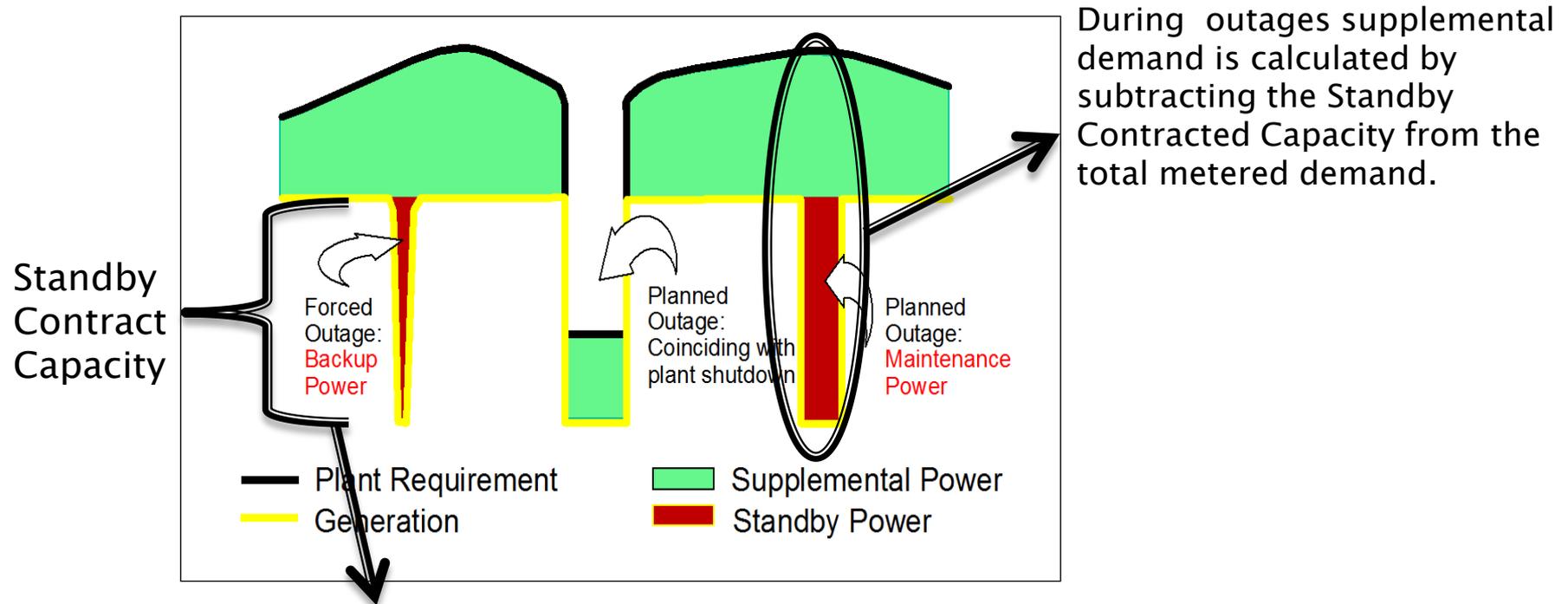
- ▶ **Reservation Capacity Fee**
 - Applies against Contracted Standby Demand
 - Standby Reservation plus Summer/Winter Adder

- ▶ **Usage Rate Demand Charge**
 - Metered Demand, per day On-Peak, per kW
 - Divided between Summer/Winter Seasons

- ▶ **Usage Rate Energy Charge –**
 - Time of Use divided between Summer/Winter Seasons

Otter Tail- Rate (cont.)

Standby Tariff – Standby Service Rider (SSR)

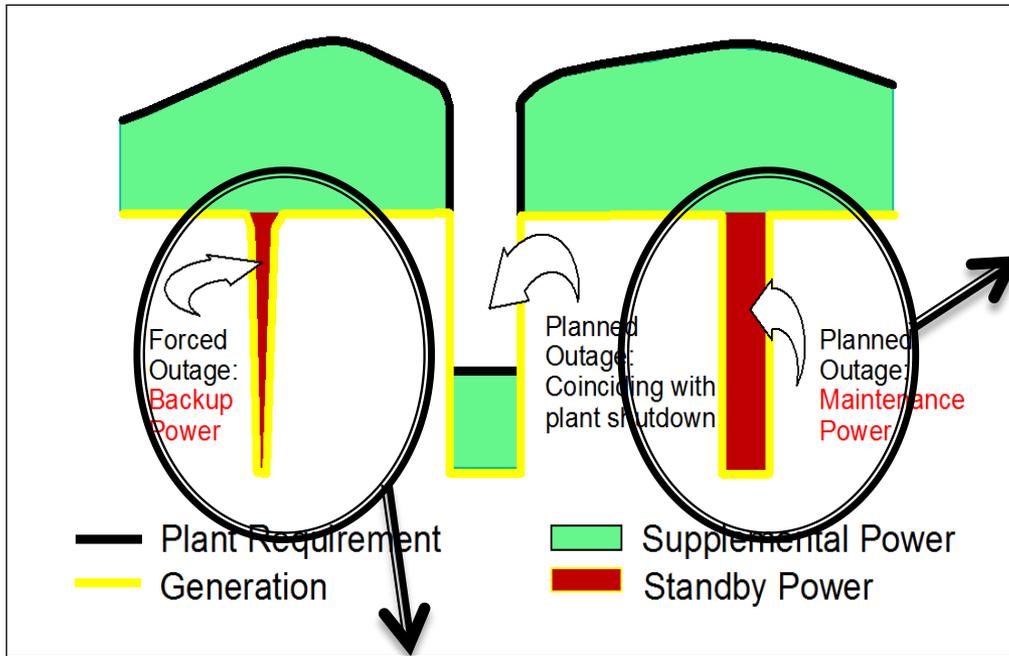


Amount of Standby Contract Capacity

- “Amount of Capacity selected to backup the customer’s DG”

Otter Tail Power- Rate (cont.)

Standby Tariff –



- 30 Days per Calendar Year
- Daily On-Peak Demand charge waived
- Min 5 Days Notice
- April, May, October, November

- 120 On-Peak Hours in the summer;
- 240 On-Peak hours in the Winter
- 10 highest backup demands multiplied by backup demand charge
- kW & kWh charges contained within Rate

Otter Tail Power Co. – Outages

▶ Unscheduled Outages:

Option A - Firm Standby: Exclusive of any scheduled maintenance hours, if the number of hours on which **Backup Service** is supplied exceeds 120 On-Peak hours in the Summer season and 240 On-Peak hours in the Winter season, Customer may be required to take service under a standard, non-standby, rate schedule.

Option B – Non-Firm Standby: **Backup Service** is not available during any on-peak season. This service is only available in the **Summer Shoulder** and **Summer Off-Peak** and **Winter Shoulder** and **Winter Off-Peak** hours on a non-firm basis. The Company makes no guarantee that this service will be available, however, the Company will make reasonable efforts to provide **Backup Service** under Option B whenever possible.

Backup Demand Charge is the sum of the ten highest daily Backup Demands multiplied by the applicable Backup Demand Charge for that season.

▶ Scheduled Maintenance Service:

- 30 Days per calendar year
- April, May, October or November

Otter Tail Power Co. – Rate (cont.)

OPTION A: FIRM STANDBY			
	Transmission Service	Primary Service	Secondary Service
Firm Standby Fixed Charges			
Customer Charge	\$199.00/month	\$199.00/month	\$199.00/month
Minimum Monthly Bill	Customer + Reservation + Standby Facilities Charges	Customer + Reservation + Standby Facilities Charges	Customer + Reservation + Standby Facilities Charges
Summer Reservation Charge per month per kW of Contracted Backup Demand	14.90 ¢/kW	16.04 ¢/kW	16.77 ¢/kW
Winter Reservation Charge per month per kW of Contracted Backup Demand	4.68 ¢/kW	5.10 ¢/kW	5.37 ¢/kW
Standby Facilities Charge per month per kW of Contracted Backup Demand	Not Applicable	52.83 ¢/kW	72.26 ¢/kW

Contracted Backup Demand is the amount of Capacity selected to backup the Customer's generation, not to exceed the capability of the Customer's Generator.

Otter Tail Power Co. – Rate (cont.)

	Transmission Service	Primary Service	Secondary Service
Firm Standby On-Peak Demand Charge - Summer			
Metered Demand per day per kW On-Peak Backup Charge	63.67 ¢/kW	68.38 ¢/kW	71.38 ¢/kW
Firm Standby On-Peak Demand Charge - Winter			
Metered Demand per day per kW On-Peak Backup Charge	64.33 ¢/kW	70.03 ¢/kW	73.73 ¢/kW
Firm Standby Energy Charges - Summer			
Energy Charges per kWh			
On-Peak Charge	6.660 ¢/kWh	7.067 ¢/kWh	7.319 ¢/kWh
Shoulder Charge	4.952 ¢/kWh	5.228 ¢/kWh	5.397 ¢/kWh
Off-Peak Charge	2.272 ¢/kWh	2.376 ¢/kWh	2.437 ¢/kWh
Firm Standby Energy Charges - Winter			
Energy Charges per kWh			
On-Peak Charge	5.844 ¢/kWh	6.251 ¢/kWh	6.507 ¢/kWh
Shoulder Charge	4.460 ¢/kWh	4.742 ¢/kWh	4.917 ¢/kWh
Off-Peak Charge	3.352 ¢/kWh	3.546 ¢/kWh	3.665 ¢/kWh

Otter Tail Power Co. – Rate (cont.)

OPTION B: NON-FIRM STANDBY			
	Transmission Service	Primary Service	Secondary Service
Non-Firm Standby Fixed Charges			
Customer Charge	\$199.00/month	\$199.00/month	\$199.00/month
Minimum Monthly Bill	Customer + Reservation + Standby Facilities Charges	Customer + Reservation + Standby Facilities Charges	Customer + Reservation + Standby Facilities Charges
Reservation Charge per month per kW of Contracted Backup Demand	Not Available	Not Available	Not Available
Standby Facilities Charge per month per kW of Contracted Backup Demand	Not Applicable	52.83 ¢/kW	72.26 ¢/kW
Non-Firm Standby On-Peak Demand Charge - Summer			
Metered Demand per day per kW On-Peak Backup Charge	Not Available	Not Available	Not Available
Non-Firm Standby On-Peak Demand Charge - Winter			
Metered Demand per day per kW On-Peak Backup Charge	Not Available	Not Available	Not Available
Non-Firm Standby Energy Charges - Summer			
Energy Charges per kWh			
On-Peak Charge	Not Available	Not Available	Not Available
Shoulder Charge	4.952 ¢/kWh	5.228 ¢/kWh	5.397 ¢/kWh
Off-Peak Charge	2.272 ¢/kWh	2.376 ¢/kWh	2.437 ¢/kWh
Non-Firm Standby Energy Charges - Winter			
Energy Charges per kWh			
On-Peak Charge	Not Available	Not Available	Not Available
Shoulder Charge	4.460 ¢/kWh	4.742 ¢/kWh	4.917 ¢/kWh
Off-Peak Charge	3.352 ¢/kWh	3.546 ¢/kWh	3.665 ¢/kWh

Otter Tail Power Co. – Details

Summer On-Peak: For all kW and kWh used Monday through Friday between 1:00 p.m. and 7:00 p.m.

Summer Shoulder: For all kW and kWh used Monday through Friday 9:00 a.m. to 1:00 p.m., and 7:00 p.m. to 10:00 p.m., Saturday through Sunday 9:00 a.m. to 10:00 p.m.

Winter On-Peak: For all kW and kWh used Monday through Friday between 7:00 a.m. and 12:00 noon, and between 5:00 p.m. and 9:00 p.m.

Winter Shoulder: For all kW and kWh used Monday through Friday hour 6:00 a.m. to 7:00 a.m., hours 12:00 noon to 5:00 p.m. and hour 9:00 pm to 10:00 p.m. and, Saturday through Sunday 6:00 p.m. to 10:00 p.m.

Dakota Electric Association – Rate

Standby Service

- ▶ Service Offerings:
- ▶ Firm Standby
- ▶ Non-Firm Standby

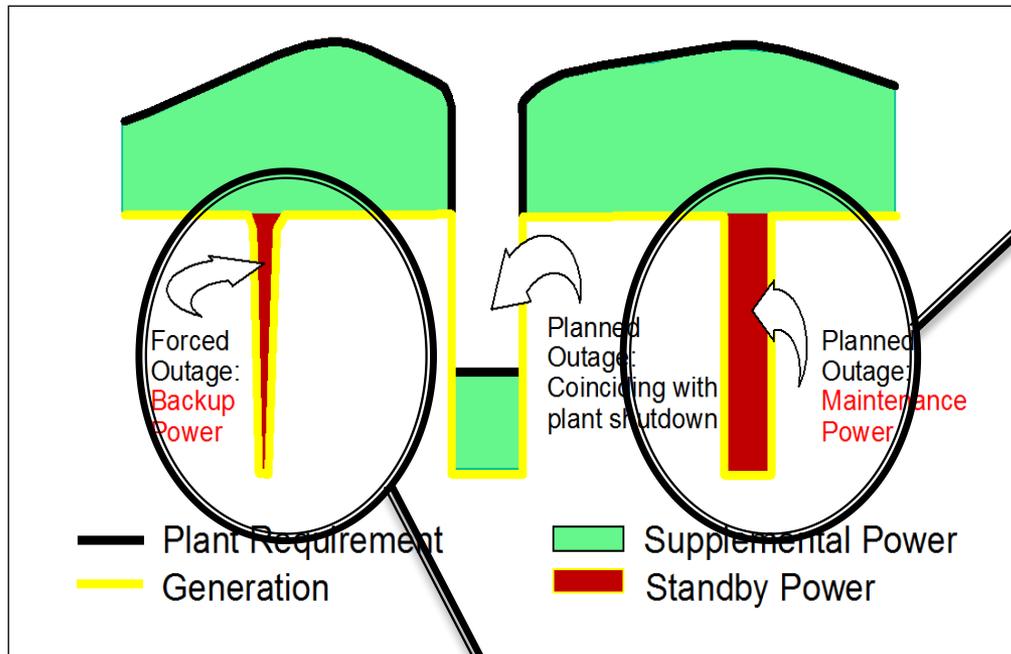
Dakota Electric Association – Rate

Standby Charges

- ▶ Monthly Reservation Charges
 - Charged against Contracted Capacity
- ▶ Demand Usage Charges
 - Billed at the Demand Rate Contained in Base Rate
 - Special Circumstances for outages during a constrained capacity event
- ▶ Energy Usage Charges
 - Billed at Energy Rate Contained in Base Rate

Dakota Power- Rate (cont.)

Standby Tariff –



• Date Mutually Agreed Upon

- Reservation rate subtracted from demand charge contained within Base Rate
- No Published Limit on Outages

Dakota Electric Association – Rate

Reservation Rates:

	Firm Service (\$ per kW)	Non-Firm Service (\$ per kW)
Generation	*	
Transmission	*	
Distribution - Primary Service	\$2.91	\$2.91
Distribution - Secondary Service	\$3.09	\$3.09

Generation & Transmission Rates:

2014 Monthly Reservation Fees (per kW of Contracted Standby Demand)			
Billing Month	GRE Season	Firm Standby Service*	Non-Firm Standby Service
January	Winter	\$1.96	\$0.00
February	Winter	\$1.96	\$0.00
March	Spring	\$1.34	\$0.00
April	Spring	\$1.34	\$0.00
May	Spring	\$1.34	\$0.00
June	Summer	\$2.57	\$0.00
July	Summer	\$2.57	\$0.00
August	Summer	\$2.57	\$0.00
September	Fall	\$1.34	\$0.00
October	Fall	\$1.34	\$0.00
November	Fall	\$1.34	\$0.00
December	Winter	\$1.96	\$0.00

*Each monthly rate includes \$0.73/kW for standby transmission & ancillary services.

Energy Resources Center

- ▶ 30+ years experience
- ▶ Located at the University of Illinois at Chicago
- ▶ Provides comprehensive and cutting edge solutions for energy and environmental challenges in the institutional, industrial, and commercial sectors
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 - distributed generation
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 - biofuels and bioenergy





Thank You!

Questions?

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