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# Outage Reporting

Presented to

**SOUTH DAKOTA RURAL ELECTRIC ASSOCIATION**

November 23, 2016

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# Outage Reports

Each cooperative has an assigned outage report that is being used to inform about the status of all meters in each county that is being served. The report should be updated accordingly every time something changes so the outage history is logged properly.

There are two ways to update the assigned outage report: automatically & manually.

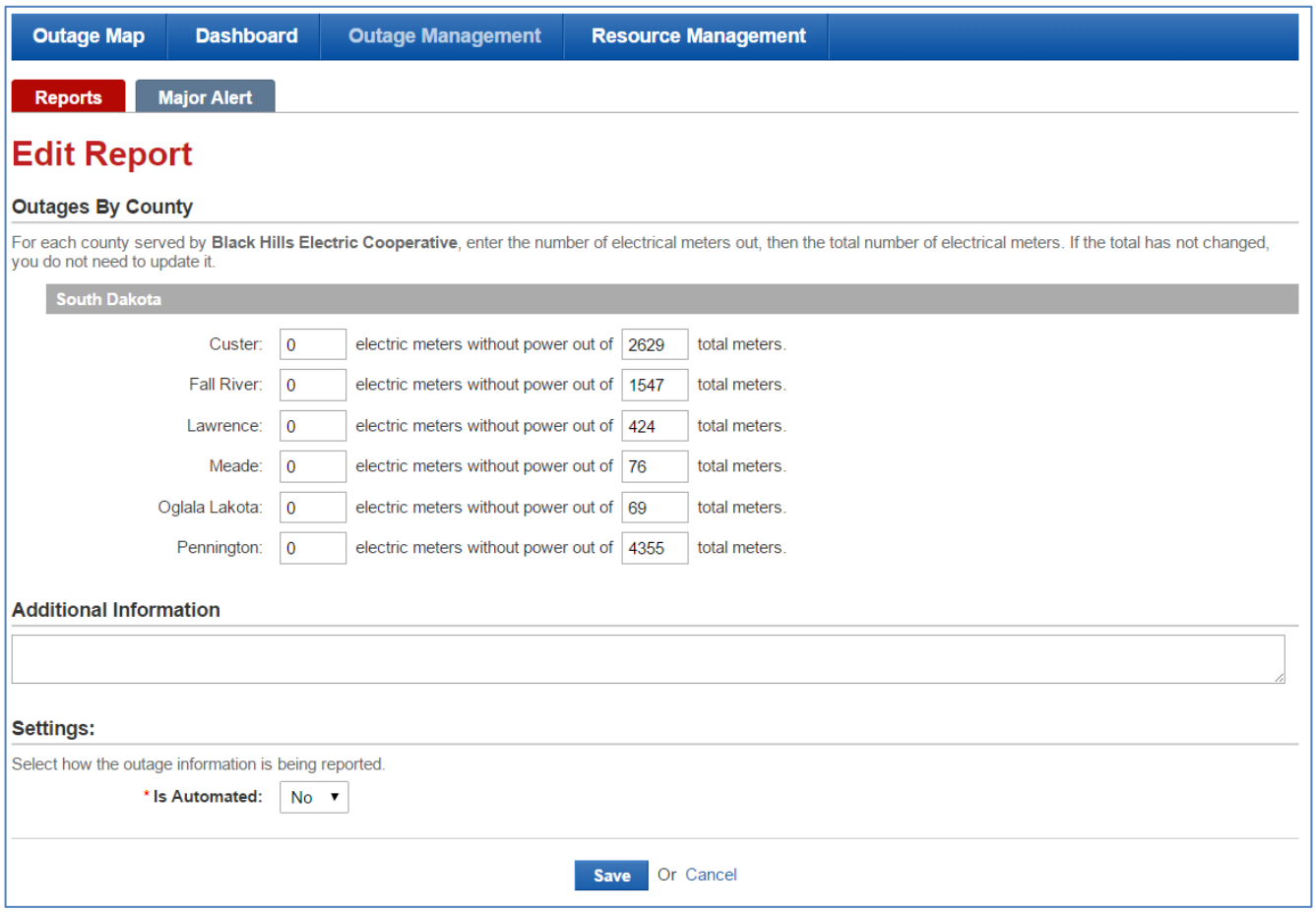
## 1) Report Automatically (preferred)

To update the outage report automatically, the system must submit the data to the following address: https://outages.sdrea.coop/manage/outages/webservice

Need a list of county/cooperative IDs? Instructions are located here.

## 2) Report Manually

To update the assigned outage report manually, the administrator must submit the following form:



# API Documentation

## Gather Cooperative and County IDs

- For a list of all Cooperative IDs, perform the following API call:

https://outages.sdrea.coop/api/utilityboard/serviceareas

- For a list of all County IDs for a specific cooperative, use the ID located above and perform the following API call:

https://outages.sdrea.coop/api/utilityboard/serviceareas/%CoopID%/countysummaries

## Submit Outage Data

Using the following format:

```
<?xml version="1.0"?>
<outageSummary xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" coopID="YOUR_COOP_ID">
      <totals>
            <nbrOut>TOTAL_NUMBER_OF_METERS_OUT</nbrOut>
            <nbrServed>TOTAL_NUMBER_OF_METERS</nbrServed>
      </totals>
      <regions type="County">
            <region>
                  <id>COUNTY_ID_1</id>
                  <name>COUNTY_NAME_1</name>
                  <nbrOut>TOTAL_NUMBER_OF_METERS_OUT_IN_COUNTY_1</nbrOut>
                  <nbrServed>TOTAL_NUMBER_OF_METERS_IN_COUNTY_1</nbrServed>
            </region>
            <region>
                  <id>COUNTY_ID_2</id>
                  <name>COUNTY_NAME_2</name>
                  <nbrOut>TOTAL_NUMBER_OF_METERS_OUT_IN_COUNTY_2</nbrOut>
                  <nbrServed>TOTAL_NUMBER_OF_METERS_IN_COUNTY_2</nbrServed>
            </region>
      </regions>
</outageSummary>
```

**Note:** For automatic outage reports, each cooperative decides how often they want to update them.

## Automatic Reporting Examples:

Your cooperative (ID=10) serves 3 counties: Butler (ID=4), Bremer (ID=5), and Floyd (ID=6). Butler county has 50 meters, Bremer county has 200 meters and Floyd county has 100 meters. An outage happens and 40 meters are out in Bremer and 35 in Floyd. An automated report for this outage would look like this:

```
<?xml version="1.0"?>
<outageSummary xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" coopID="10">
      <totals>
            <nbrOut>75</nbrOut>
            <nbrServed>350</nbrServed>
      </totals>
      <regions type="County">
            <region>
                  <id>4</id>
                  <name>Butler</name>
                  <nbrOut>0</nbrOut>
                  <nbrServed>50</nbrServed>
            </region>
            <region>
                  <id>5</id>
                  <name>Bremer</name>
                  <nbrOut>40</nbrOut>
                  <nbrServed>200</nbrServed>
            </region>
            <region>
                  <id>6</id>
                  <name>Floyd</name>
                  <nbrOut>35</nbrOut>
                  <nbrServed>100</nbrServed>
            </region>
      </regions>
</outageSummary>
```

When an outage has been resolved, the outage report should be updated accordingly. Following the previous example, if the outage in Bremer county has been resolved, the outage report should be updated like this:

```
<?xml version="1.0"?>
<outageSummary xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" coopID="10">
      <totals>
            <nbrOut>35</nbrOut>
            <nbrServed>350</nbrServed>
      </totals>
      <regions type="County">
            <region>
                  <id>4</id>
                  <name>Butler</name>
                  <nbrOut>0</nbrOut>
                  <nbrServed>50</nbrServed>
            </region>
            <region>
                  <id>5</id>
                  <name>Bremer</name>
```

```
                  <nbrOut>0</nbrOut>
                  <nbrServed>200</nbrServed>
            </region>
            <region>
                  <id>6</id>
                  <name>Floyd</name>
                  <nbrOut>35</nbrOut>
                  <nbrServed>100</nbrServed>
            </region>
      </regions>
</outageSummary>
```