WINTER STORM SHIRLEY
February 13 – 26, 2021
CONSTRUCTION STANDARDS FOR ICE/WIND LOADING

(POLE INSPECTIONS)
CONSTRUCTION STANDARDS FOR ICE LOADING


We have always designed for heavy ice loading based upon RUS specifications.
**CONSTRUCTION STANDARDS FOR ICE LOADING**

- National Electrical Safety Code (NESC) – Loading Zones
- Heavy loading – 0.5” of radial ice @ 0°F with 4 lb./ft² (~40MPH) wind
- All poles and hardware are designed to withstand these worst-case loadings by using RUS design guidelines

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<table>
<thead>
<tr>
<th>Radial thickness of ice</th>
<th>Heavy loading (for use with Rule 250A)</th>
<th>Medium loading</th>
<th>Light loading</th>
<th>Warm islands¹</th>
<th>Extreme wind loading (for use with Rule 250B)</th>
<th>Extreme ice loading with concurrent wind (for use with Rule 250D)</th>
</tr>
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<tbody>
<tr>
<td>(mm)</td>
<td>12.5</td>
<td>6.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>See Figure 250-3</td>
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<tr>
<td>(in)</td>
<td>0.48</td>
<td>0.25</td>
<td>0</td>
<td>0</td>
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<td>See Figure 250-3</td>
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<tr>
<td>Horizontal wind pressure</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>(Pa)</td>
<td>190</td>
<td>190</td>
<td>430</td>
<td>430</td>
<td>190</td>
<td>See Figure 250-2</td>
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<tr>
<td>(lb/ft²)</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>9</td>
<td>4</td>
<td>See Figure 250-2</td>
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<tr>
<td>Temperature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(°C)</td>
<td>−20</td>
<td>−10</td>
<td>−1</td>
<td>+10</td>
<td>−10</td>
<td>+15</td>
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<tr>
<td>(°F)</td>
<td>0</td>
<td>+15</td>
<td>+30</td>
<td>+50</td>
<td>+15</td>
<td>+60</td>
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</tbody>
</table>

¹Warm islands located from latitude 25 degrees south through 25 degrees north include American Samoa (14°S), Guam (13°N), Hawaii (22°N), Puerto Rico (18°N), and Virgin Islands (18°N).
CONSTRUCTION STANDARDS FOR ICE LOADING

• By following RUS design standards; poles, crossarms, guy attachments and anchors are selected to withstand the loads generated in the Heavy Loading district.

• One cubic foot of ice weighs 57 lbs.
  - Approximate weight of a 300’ span of #2ACSR conductor = 32 lbs.
  - Approximate weight of ½” radial ice along same span = 153 lbs. (ice) + 32 lbs. = 185 lbs.
  - Approximate weight of ¾” radial ice along same span = 300 lbs. (ice) + 32 lbs. = 332 lbs.

• Note the exponential growth in weight based on radial ice accumulation.

• *Poles and supporting hardware are not designed to withstand the weight of an ice laden tree or the “shock” load delivered to the conductor and pole from a tree that falls onto the line.*
Emergency Restoration Plan Activation

When, where, what that does?
WEATHER FORECAST

MODEL ICE ACCUM SAT 6:00 PM

- Staunton: .03" (CULPEPER)
- Orange: .03" (FREDERICKSBURG)
- Charlottesville: .05" (LOUISA)
- Louisa: .17" (ASHLAND)
- Farmville: .41" (RICHMOND)
- Chester: .11" (WILLIAMSBURG)
- Petersburg: .32" (WEST POINT)
- Wakefield: .08" (WILLIAMSBURG)
- Norfolk: 0" (KILMARNOCK)

The weather authority.

(Colors and map data indicate varying ice accumulations across the region.)
**ACTIVATION OF THE EMERGENCY RESPONSE PLAN**

• Emergency Response Plan was activated by Brad Furr on February 10th @ 11 a.m. as Storm Manager

• Once activated the following actions take place:
  - All Cooperative personnel were placed on stand-by
  - On-system line & ROW contractors were placed on stand-by
  - Office generators fueled and functional
  - Microwave system generators fueled and functional
  - Fuel supplies brought to full capacity
  - Inventory stocking levels brought to storm levels (poles, crossarms, etc.)
  - Ensure all line vehicles are functional
  - Prepare for pre-disaster reporting to SCC and other organizations
  - Determine available food services for field crews
  - Make initial contacts for housing (hotel rooms)
  - Confirm major storm damage reporting procedures
  - Contact ODEC to confirm operation of Ponton diesel generators
  - Contact the VMDAEC to confirm Mutual Aid contacts (and make initial pre-staging requests)
  - Ensure IT data backups are in place
  - Ensure communications systems are functional and test backups
  - Review staffing assignments (storm assignments and vacation/leave cancellations)
SAFETY/INJURIES
SAFETY PERFORMANCE DURING EVENT

• Three minor injury events (non-SEC employees)
  - 1 bruised face
  - 1 stitches in leg
  - 1 hyperextended knee

• No known positive COVID cases (among our employees) from the restoration efforts
CONTINUING RECOVERY EFFORTS
CONTINUING RECOVERY EFFORTS (PHASE I)

• Starting on March 2\textsuperscript{nd}, approximately 70 broken poles remained (temporarily repaired or bypassed)

• Six contract line crews and four crews from SEC’s Operation’s groups completed all permanent replacements by close of business on March 5\textsuperscript{th}

• In addition, damaged pole/hardware recovery began on March 2\textsuperscript{nd} to recover materials from the majority of the 775 broken pole sites. That work continues and is expected to tentatively be completed by May 1\textsuperscript{st}.

• Following the storm, approximately 50 service locations remained without power due to damage to the member’s equipment or home. Reconnection of those services continues as members make repairs.
CONTINUING RECOVERY EFFORTS (P HASE II)

• Starting March 22nd, OSMOSE Utilities will be performing a system visual inspection on the 77 circuits that sustained a lock-out (circuit opened due to damage)
  - 82,157 poles
  - 18,682 service locations

• Inspectors will document equipment damage and obvious hazard trees (damaged, leaning trees)

• Anticipated to take 60 days to patrol system

• Damage locations will be reviewed by SEC Engineering (Contract Staking) and separated into the following categories:
  - Vegetation Corrective Work
  - Maintenance Service Order Work
  - Capital Replacements (Work Order Replacements of Poles, Crossarms, Transformers, etc.)

• Maintenance and Capital Replacements will be forwarded to SEC Operations and/or contract resources to continue repair activities

• Vegetation issues will be forwarded to SEC’s vegetation group for corrective work

• Estimated cost of system patrol = $819,680
CONTINUING RECOVERY EFFORTS (PHASE III)

• Four additional hazard tree crews (6 total including the 2 on-system now) will continue to clear hazard trees from the OSMOSE patrol & Utility Foresters. This will include a contract work planner to assist with coordination of these additional crews.

• Aerial trimming will be coordinated for 6-8 weeks during the remainder of 2021 to focus on overhang damage along the most heavily damaged circuits

• Two ROW clearing crews will assist with cleanup behind the aerial trimming crews and work to open rights-of-ways that are blocked by downed trees

• Side-trimming hazard tree removals are expected to increase in several of the areas hit by the more intense ice damage.

• Additional ROW spending of approximately $1.9 million in addition to 2021 budgets (estimated – will be confirmed following the Osmose inspection).

• Additional engineering staking and construction spending to be determined once the Osmose assessment is completed.
RELIABILITY DATA

HISTORICAL
HISTORICAL SYSTEM RELIABILITY DATA
SAIDI (MINUTES)
SCC Data Request

• SCC submitted a 42-question data request related to the ice storm on March 5th with a follow-up 3 question request on March 10th.

• Typical response from the SCC given the size and duration of the event with similar data requests following:
  - Tropical Storm Ernesto
  - Hurricane Irene
  - December 2009 Snowstorm
  - Hurricane Isabel
  - June Derecho

• Dominion, Mecklenburg and Southside received requests.

• Focus on all aspects of pre-planning, storm response, weather forecasts and the aftermath. Also focus on vegetation, pole replacement and maintenance programs.

• Responses due on April 2nd.
Vegetation Management

Historical Activity
Vegetation Audit

- SEC periodically uses Vegetation Consultants to inspect the system and provide input for improvements of the vegetation cycle
- Last completed by Davey Resource Group in 2015
- Facts from inspection:
  - Estimated Trees that Require Management in a Cycle = 2,175,010
  - Tree Density along SEC’s lines = 356 Trees / Mile (Typical Rural/Urban System is 75-100 Trees/Mile)
  - 87% of SEC’s rights-of-way are double sided (lined by trees on both sides)
  - SEC’s 30’ and 40’ rights-of-ways are sufficient to ensure clearance over the typical side-trim cycle
- Recommendations Applied
  - Increased Hazard Tree removals
  - Improved Herbicide application program
  - Improved trimming standards (side-trim and yard tree)
**VEGETATION MANAGEMENT PROGRAMS**

- **Side-Trimming** – removal of limbs and trees to the full extent of the right-of-way with brush clearing as required. Also includes hazard tree removals. Seven-year cycle.

- **Herbicide Application** – application of herbicide to the right-of-way floor. Three to four-year cycle (typically one year after side-trim and then three years later).

- **Brush clearing** – mechanical clearing of the right-of-way floor. Program focused on no-spray areas and areas that have exceeded optimal brush height. No cycle. Used as needed.

- **Hazard Tree Removals** – removal of off-cycle hazard trees identified by Utility Foresters, Operations or the membership. Not every tree is removed immediately and may be held for removal as part of the Side-Trimming cycle. Typical patrol of circuits in year 3-4 after side-trim.

- **Aerial Trimming (Helicopter/Climbing)** – removal of overhang in remote and difficult to reach areas. Scheduled and budgeted as part of the Side-Trimming program.
Vegetation Management Programs
Total Program Spending

- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020

$- $1,000,000 $2,000,000 $3,000,000 $4,000,000 $5,000,000 $6,000,000
VEGETATION MANAGEMENT PROGRAMS
HAZARD TREE REMOVALS

[Graph showing annual hazard tree removals from 2008 to 2020]
**Vegetation Storm Facts**

- 1,544 tree caused outages (of the total 2,136 outages)
  - 1,229 caused by Coniferous Trees (primarily Pines)
  - 160 caused by Hardwood Trees (various types)
  - 175 caused by limbs broken/broken off
  - Only 56 of these outages indicated dead trees as the cause
  - 75 of these outages were noted as inside the ROW
  - 1,448 of these outages were noted as outside the ROW
POLE INSPECTIONS
**Pole Inspection Program**

- Approximate 10-year cycle performed by Pole Inspection Contractor following industry best practice ANSI standards

- Process includes:
  - Visual inspection for above ground damage
  - Sounding (striking the pole to detect auditory changes)
  - Below grade inspection:
    - Excavate partial or complete circumference to 18-24”
    - Chip/clean any debris and rot from the pole circumference
    - Measure the remaining pole diameter and compare it to NESC strength tables (reject if less than 60% original strength)
    - Bore (drill holes) into pole below grade to examine for rot (reject if found)
    - Plug holes, apply rot/insecticide treatments, wrap pole and fill excavation
- Poles are not rejected solely based on age

- Emergency rejects are reported immediately and passed to Operations for immediate replacement (typically 5-10 per inspection year)

- All other rejects are scheduled for replacement over the next 12-24 months (part of the CWP process)

- Typical annual rejection of 3.5 – 5% (448-640 poles)

- Less than 6/10 of 1 percent of poles broken during storm
COST ESTIMATES FOR SYSTEM SOLUTIONS
SEC TOTAL PLANT & DEBT

• Total Utility Plant - $386,164,000
• Total Debt - $211,647,000
ESTIMATE TO PLACE ALL EQUIPMENT UNDERGROUND

• Approximately 6,573 miles of overhead system
• 4,889 miles of 1-Phase; 1,645 miles of 2-Phase/3-Phase
• Assumes reutilization of existing ROW with no additional easement negotiation required

• 2021 CWP cost estimates:
  - $120,000 / mile of 1-Phase x 4,889 miles = $586,680,000
  - $300,000 / mile of 3-Phase x 1,645 miles = $493,500,000

• Approximate Total = $1,080,180,000
ESTIMATE TO WIDEN ALL ROW TO 100’

• Approximately 6,573 miles of overhead system
• 4,889 miles of 1-Phase (30-foot easement)
• 1,645 miles of 2-Phase/3-Phase (40-foot easement)

• Estimates based on negotiated easements, legal, environmental and clearing work for the Powhatan to Amelia 115kV Project in 2016 @ $19,605/acre (40’ to 100’ easement)

• Cost Estimates:
  - $19,605 / acre of 1-Phase x 41,482 acres = $813,266,046
  - $19,605 / acre of 3-Phase x 11,964 acres = $234,547,990

• Approximate Total = $1,047,814,036
**Estimate to Replace all 30+ Year Old Poles**

- Approximately 51,820 poles older than 1992
- Average cost of a pole replacement is $3,200 (CWP estimate)
- **Approximate Total = $165,824,000** (to replace all at one time)
- To maintain a 30-year-old pole plant:
  - Average 7,800 poles / year for next 10 years = $24,960,000/Year
  - Starting in year 11, average 2,600 poles / year to maintain 30-year-old poles = $8,320,000/Year
**PRE-STORM/STORM/PREPARATIONS/STRATEGIES**

**PUBLIC RELATIONS**

- Prior to the ice storm the MPR team had updated contact lists for county leaders and Emergency Management contacts, as well as contacts for state officials.

- During the storm:
  - Sent out daily press releases
  - Provided 78 Facebook Posts
  - SEC interacted with a great deal of its members who messaged the Cooperative, especially those that messaged through private messaging. This stated, during the ice storms, SEC received close to 15,000 messages. To best handle this informational need, we provided Q&A graphics.
  - Throughout the entire power restoration process, SEC maintained a philosophy of open, continuous and transparent reporting of outage information. As soon as data (number of outages, members effected, broken poles, etc.) was available, SEC would release the information.
  - SEC’s communications office focused on multiple levels of communications – media releases and multiple requests from broadcast media in Richmond, Lynchburg and Roanoke, as well as social media. Primary focus was to get the latest information out as quickly as possible.
**Teams Meetings**

- SEC also started Teams meeting calls daily on February 18th at 2 p.m. These calls were held daily until Friday, February 26th at 2 p.m. Invited to participate on the call were County Administrators, County Emergency Coordinators, State Senators and State Delegates, representatives from VDEM, members from the SCC as well as staff from the Governor’s office.

- Representing SEC on the call was the Director of Community Relations, the Vice President of Operations, the Director of Technical Services and the Supervisor of Systems Operations.

- The Operations team provided storm restoration updates. They also provided information regarding the number of personnel in the field, the number of personnel working in each county as well as restoration estimates. The Operations team also provided pictures and videos to show the challenges faced in the restoration efforts.

- These meetings were very effective in responding directly to County and State officials and provided them with information needed to provide answers and updates to their constituents.
CRC Issues

• CRC operates three call centers located in Abilene, TX; Dunlap, TN; and Austin, MN.

• On February 15th, CRC reported that the Abilene location was running on a generator due to power outages, but no employees could get in due to ice and snow. CRC did have 1/3 of their Abilene agents working from home but that effort was impacted by power outages and rolling blackouts.

• On February 16th, CRC reported their Tennessee location was dealing with an ice storm and power outages. They used remote and on-site agents as best they could. On that day CRC answered 102,000 calls for its member-owner cooperatives. This is the equivalent of nine regular days of operation.

• On February 18th, CRC reported their Abilene building was closed due to broken pipes. Remote agents work as outages/blackouts allow. The Tennessee location negatively impacted by an ice storm had remote agents working as power/internet outages allowed.

• On February 22nd, CRC reported their Abilene center was operational but could only run from 8-5 CST. Remote agent utilization still very limited due to power/internet outages.
COMMUNITY SUPPORT

- People making meals and dropping off food to our offices (even without power)
- People picking up tabs
- Snacks and hot coffee left out
- Neighbors helping neighbors.
- Cards and notes were delivered to the SEC offices thanking the lineman for working so hard
**Why was there a delay in getting help?**

- We pre-staged significant amounts of materials, our entire staff, and mutual aid crews from out of state before the onset of the storm.
- Pre-staged: 18 mutual-aid crews, 10 contract crews, and 8 contract tree crews were brought on board, as well as 26 of its own restoration crews.
- Then Monday more crews arrived. Then a 2nd ice storm was predicted -- WORSE than the first one. Co-ops needed to make sure their area was in the clear before sending help.
- According to a February 17th New York Times article, “In all, roughly 150 million Americans were under some form of winter storm warning.”
- Once they became available, crews arrived from SC, NC, GA, IN, MD, etc.
- As mentioned earlier, over 930 individuals.
WHY WAS MECKLENBURG AND DOMINION ABLE TO RESTORE MORE QUICKLY THAN SEC?

- SEC territory was epicenter of ice storm with accumulation greater than ½ inch in many areas.
- Most significant impact in SEC’s territory (Prince Edward, Lunenburg, Nottoway, Charlotte and Dinwiddie counties).
- Damaged 80% of SEC’s infrastructure, which took 80 years to build.
DID SEC CUT MAINTENANCE BUDGET IN 2018-2019 (40%)?

- News reported:
  - Actual for 2018 was $14 million
  - Actual for 2019 was $9 million
  - Those are tax forms/records after the fact
  - Budgets are what we anticipate spending
  - 2018 budget - $10 million
  - 2019 budget - $11 million
  - 2018 Tropical Storm Michael increased expenditures
  - 2019 FEMA money - credited to same line item
SYSTEM METRICS

• Total Number of Meters – 57,668
• Total Number of Poles on System – 128,075
  - Distribution – 126,619 | Transmission – 1,456
• Total Miles of Line – 9,419
  - Transmission – 82
  - Overhead – 7,240
    ▪ Primary – 6,065 | Secondary – 1,175
  - Underground – 2,098
    ▪ Primary – 1,088 | Secondary – 1,010
OUTAGE METRICS

• Outage Start – 2/12/2021 11:00 PM
• Outage End – 2/26/2021 9:00 AM
• Outage Length – 13 Days, 10 Hours
• Number of Outages – 2,136
• Broken Poles – 826
• Wire Down – 946 Reports
RESPONSE METRICS - SUMMARY

Personnel per Day

- Line Personnel
- Line Support
- Storm Center
- Operations Center
- Call Center
SEC Fleet
- Pick up Trucks = 65
- Service Bucket Trucks = 19
- Large Bucket Trucks = 10
- Line Trucks = 8
- Track Machines = 1
- Trailers = 42

Total Fleet = 103

Contractor/Mutual Aid Fleet
- Pick up Trucks = 165
- Service Bucket Trucks = 170
- Large Bucket Trucks = 87
- Line Trucks = 103
- Track Machines = 21
- Trailers = 32

Total Fleet = 577
Suppliers and Deliveries
STRONG RELATIONSHIPS WITH SUPPLIERS

Major Suppliers

Advantages

• Maintain adequate levels at their facilities – lower carrying costs

• Nearby distribution warehouses/yards for quick delivery

• Shared warehouse with other cooperatives – mitigates risk of running out
Did SEC run out of supplies, such as poles or lines, during this restoration process?

SEC has a great supply chain, and there was no lag time in receiving any poles or supplies that were needed.

SEC never ran out of supplies.
Preparation

Preparation (Feb 8 – Feb 12)
• Confirmed adequacy of on hand levels of SEC and supplier inventory (poles, crossarms, braces, etc.)
• Confirmed availability of daily deliveries, if needed
• Ordered sleeves, fuses, copper wire (items not readily available in supplier warehouse)

Poles on Hand (287) vs. Major Storm Broke Poles

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<tr>
<th>Storm</th>
<th>Year</th>
<th>Broke poles</th>
<th>Poles on Hand</th>
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<tr>
<td>Michael</td>
<td>2018</td>
<td></td>
<td>287</td>
</tr>
<tr>
<td>Derecho</td>
<td>2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irene</td>
<td>2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snow Storm</td>
<td>2009</td>
<td></td>
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## Storm Comparison

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<tr>
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<th>2021 Winter Storm Shirley</th>
<th>2018 Tropical Storm Michael</th>
<th>2012 Windstorm Derecho</th>
<th>2011 Hurricane Irene</th>
<th>2009 Winter Snowstorm</th>
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<tr>
<td>% Membership Out</td>
<td>84%</td>
<td>50%</td>
<td>69%</td>
<td>50%</td>
<td>70%</td>
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<tr>
<td>Days of Restoration</td>
<td>14</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Broken Poles</td>
<td>826</td>
<td>163</td>
<td>85</td>
<td>132</td>
<td>27</td>
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<tr>
<td>Field Personnel</td>
<td>942</td>
<td>175</td>
<td>256</td>
<td>213</td>
<td>230</td>
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<tr>
<td><strong>Total Cost</strong></td>
<td><strong>$21,010,798</strong></td>
<td><strong>$2,451,529</strong></td>
<td><strong>$1,534,565</strong></td>
<td><strong>$1,456,465</strong></td>
<td><strong>$1,290,896</strong></td>
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<td>Broken Poles per Day</td>
<td>61.6</td>
<td>23.29</td>
<td>17.00</td>
<td>33.00</td>
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<td>Cost per Day</td>
<td>$1,348,160.71</td>
<td>$350,218.43</td>
<td>$306,913.00</td>
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<td>Cost per Field Personnel</td>
<td>$20,470.99</td>
<td>$14,008.74</td>
<td>$5,994.39</td>
<td>$6,837.86</td>
<td>$5,612.59</td>
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LODGING, MEALS & LAUNDRY
Lodging, Meals & Laundry

• HR team began securing lodging on February 9th in preparation for the first forecasted storm.
• Rooms were added daily as needed.
• Daily contact with each hotel was made throughout the storm to ensure accurate information.
• HR team and storm resource manager managed as many as 424 individual rooms.
  • Total rooms managed for the entire storm = 4,442
  • 15 individual hotels.
• Coordinated meals to be provided by 16 different caterers/restaurants.
• Meals provided at each district office and remote locations in the field as needed.
• Total of 8,145 meals coordinated and provided to field/office personnel.
• 40 loads of laundry washed, dried and returned.
Total meals provided = 8,145

Includes lunch and dinner
PHOTOS/VIDEOS
HISTORIC ICE STORM
Wet Conditions
Powering Up After an Outage

When the power goes out, we expect it to be restored within a few hours. But when a major storm or natural disaster causes widespread damage, extended outages may result. Our line crews work long, hard hours to restore service safely to the greatest number of members in the shortest time possible. Here’s how we get to work when you find yourself in the dark:

1. High-Voltage Transmission Lines:
Transmission towers and cables supply power to transmission substations (and thousands of members), and they rarely fail. But when damaged, these facilities must be repaired before other parts of the system can operate.

2. Distribution Substation:
A substation can serve hundreds or thousands of members. When a major outage occurs, our line crews inspect substations to determine if problems stem from transmission lines feeding into the substation, the substation itself or if problems exist further down the line.

3. Main Distribution Lines:
If the problem cannot be isolated at a distribution substation, distribution lines are checked. These lines carry power to large groups of members in our local communities.

4. Tap Lines:
If local outages persist, supply lines (also known as tap lines) are inspected. These lines deliver power to transformers, either mounted on poles or placed on pads for underground service, outside businesses, schools and homes.

5. Service Lines:
If your home remains without power, the service line between a transformer and your residence may need to be repaired. If you experience an outage, please give us a call so we can isolate the issue.
Part of the Cooperative Difference is a nationwide mutual-aid agreement. As of Feb. 19, SEC has or is currently receiving assistance from 28 electric cooperatives from 6 states.

**MARYLAND**
- Southern Maryland Electric Cooperative
- Choptank Electric Cooperative

**VIRGINIA**
- Central Virginia Electric
- Rappahannock Electric Cooperative

**NORTH CAROLINA**
- Union EMC
- Halifax EMC
- Randolph EMC
- Blue Ridge Energy
- Piedmont EMC

**SOUTH CAROLINA**
- Santee Electric Cooperative
- Berkeley Electric Cooperative
- Horry Electric Cooperative
- Fairfield Electric Cooperative
- York Electric Cooperative
- Lynches River Electric Cooperative
- Edisto Electric Cooperative
- Pee Dee Electric Cooperative

**GEORGIA**
- Blue Ridge Mountain EMC
- Jackson EMC
- Snapping Shoals EMC

**INDIANA**
- Clark County REMC
- Harrison County REMC
- Henry County REMC
- Jackson County REMC
- Steuben County REMC
- Tipmont REMC
- UDWI REMC
- Whitewater Valley REMC
Crew Scouts, Contract Crews & Mutual Aid Crews
RESTORATION EFFORTS
Charlotte County
Lunenburg County
Prince Edward County