

































| SH              | TE | 07    | 31289 | 26PT | 56505310 | 320039800540 | T | 4/8/2003 | 1037 | 25 | 4 | 100  | CREW-INSRPRCHANG  | NSP-REPR   | 3207 GLASTONBURY 1   | TF | 565 | TRUBLE SHOOTER MAKING REPAIRS TO TRANSFORMER CONNECTIONS | MTE |
|-----------------|----|-------|-------|------|----------|--------------|---|----------|------|----|---|------|---|--|----------------------|----|-----|--|-----|
| SCHEDULED INTER | SC | FD 14 | 12671 | F23A | 48525473 | 120039800980 | T | 4/8/2003 | 1055 | 1  | 0 | 48   | CREW-INSRPRCHANG <td>NSP-REPR <td>11702 N KENSINGTON 2</td> <td>TF</td> <td>485</td> <td>INSTALLING WILDLIFE PROTECTION</td> <td>MTE</td> </td> | NSP-REPR <td>11702 N KENSINGTON 2</td> <td>TF</td> <td>485</td> <td>INSTALLING WILDLIFE PROTECTION</td> <td>MTE</td> | 11702 N KENSINGTON 2 | TF | 485 | INSTALLING WILDLIFE PROTECTION                           | MTE |
| SCHEDULED INTER | SC | FD 14 | 12671 | F3E  | 1522519  | 120039801040 | T | 4/8/2003 | 1127 | 28 | 0 | 10   | CREW-INSRPRCHANG <td>NSP-REPR <td>5711 CAPELO</td> <td>TF</td> <td>515</td> <td>REPLACING TRANSFORMER CONNECTIONS <td>MTE</td> </td></td>       | NSP-REPR <td>5711 CAPELO</td> <td>TF</td> <td>515</td> <td>REPLACING TRANSFORMER CONNECTIONS <td>MTE</td> </td>      | 5711 CAPELO          | TF | 515 | REPLACING TRANSFORMER CONNECTIONS <td>MTE</td>           | MTE |
| SCHEDULED INTER | SC | AD 09 | 20380 | C37S | 53841197 | 220039800670 | T | 4/8/2003 | 1351 | 32 | 0 | 28   | CREW-INSRPRCHANG <td>NSP-REPR <td>14839 WEIL PLACE</td> <td>TF</td> <td>536</td> <td>REPLACING TRANSFORMER CONNECTIONS <td>MTE</td> </td></td>  | NSP-REPR <td>14839 WEIL PLACE</td> <td>TF</td> <td>536</td> <td>REPLACING TRANSFORMER CONNECTIONS <td>MTE</td> </td> | 14839 WEIL PLACE     | TF | 536 | REPLACING TRANSFORMER CONNECTIONS <td>MTE</td>           | MTE |
| SCHEDULED INTER | SC | IM 44 | 12093 |      | 48497544 | 120039801300 | T | 4/8/2003 | 1351 | 30 | 0 | 80   | CREW-INSRPRCHANG <td>NSP-REPR <td>2915 KETTLE RUN</td> <td>TF</td> <td>484</td> <td>REPLACE LIGHTING ARRESTOR</td> <td>NSP</td> </td>           | NSP-REPR <td>2915 KETTLE RUN</td> <td>TF</td> <td>484</td> <td>REPLACE LIGHTING ARRESTOR</td> <td>NSP</td>           | 2915 KETTLE RUN      | TF | 484 | REPLACE LIGHTING ARRESTOR                                | NSP |
| SCHEDULED INTER | SC | JN 01 | 10001 |      | 48559937 | 120039801340 | T | 4/8/2003 | 1401 | 37 | 0 | 280  | CREW-INSRPRCHANG <td>NSP-REPR <td>7003 AUGUSTINE DR</td> <td>TF</td> <td>485</td> <td>CLAMP 0 TRANSFORMER</td> <td>NSP</td> </td>               | NSP-REPR <td>7003 AUGUSTINE DR</td> <td>TF</td> <td>485</td> <td>CLAMP 0 TRANSFORMER</td> <td>NSP</td>               | 7003 AUGUSTINE DR    | TF | 485 | CLAMP 0 TRANSFORMER                                      | NSP |
| SCHEDULED INTER | SC | FD 12 | 10867 | S72  | 5052260  | 120039800870 | T | 4/8/2003 | 1448 | 70 | 0 | 74   | CREW-INSRPRCHANG <td>NSP-REPR <td>727 HARDING</td> <td>TF</td> <td>605</td> <td>REPLACE LIGHTING ARRESTOR</td> <td>NSP</td> </td>               | NSP-REPR <td>727 HARDING</td> <td>TF</td> <td>605</td> <td>REPLACE LIGHTING ARRESTOR</td> <td>NSP</td>               | 727 HARDING          | TF | 605 | REPLACE LIGHTING ARRESTOR                                | NSP |
| SCHEDULED INTER | SC | FD 12 | 10867 | S72  | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 384  | CREW-INSRPRCHANG <td>NSP-REPR <td>7273 MOONDANCE L2</td> <td>TF</td> <td>505</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>         | NSP-REPR <td>7273 MOONDANCE L2</td> <td>TF</td> <td>505</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>         | 7273 MOONDANCE L2    | TF | 505 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 108  | CREW-INSRPRCHANG <td>NSP-REPR <td>7228 WESTHEIMER 1</td> <td>TF</td> <td>485</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>         | NSP-REPR <td>7228 WESTHEIMER 1</td> <td>TF</td> <td>485</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>         | 7228 WESTHEIMER 1    | TF | 485 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 702  | CREW-INSRPRCHANG <td>NSP-REPR <td>7018 WEST ST</td> <td>TF</td> <td>505</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>              | NSP-REPR <td>7018 WEST ST</td> <td>TF</td> <td>505</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>              | 7018 WEST ST         | TF | 505 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 28   | CREW-INSRPRCHANG <td>NSP-REPR <td>7018 WEST ST</td> <td>TF</td> <td>505</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>              | NSP-REPR <td>7018 WEST ST</td> <td>TF</td> <td>505</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>              | 7018 WEST ST         | TF | 505 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 328  | CREW-INSRPRCHANG <td>NSP-REPR <td>17314 S YORKGLEN 2</td> <td>TF</td> <td>495</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>        | NSP-REPR <td>17314 S YORKGLEN 2</td> <td>TF</td> <td>495</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>        | 17314 S YORKGLEN 2   | TF | 495 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 140  | CREW-INSRPRCHANG <td>NSP-REPR <td>5716 FARMDALE LN</td> <td>TF</td> <td>515</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>          | NSP-REPR <td>5716 FARMDALE LN</td> <td>TF</td> <td>515</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>          | 5716 FARMDALE LN     | TF | 515 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 81   | CREW-INSRPRCHANG <td>NSP-REPR <td>7516 FARMDALE LN</td> <td>TF</td> <td>515</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>          | NSP-REPR <td>7516 FARMDALE LN</td> <td>TF</td> <td>515</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>          | 7516 FARMDALE LN     | TF | 515 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 57   | CREW-INSRPRCHANG <td>NSP-REPR <td>1403 BLUEBONNET 1</td> <td>TF</td> <td>615</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>         | NSP-REPR <td>1403 BLUEBONNET 1</td> <td>TF</td> <td>615</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>         | 1403 BLUEBONNET 1    | TF | 615 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 34   | CREW-INSRPRCHANG <td>NSP-REPR <td>4137 RUSKIN</td> <td>TF</td> <td>528</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>               | NSP-REPR <td>4137 RUSKIN</td> <td>TF</td> <td>528</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>               | 4137 RUSKIN          | TF | 528 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 384  | CREW-INSRPRCHANG <td>NSP-REPR <td>118 E DAHLGREN AV 1</td> <td>TF</td> <td>303</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>       | NSP-REPR <td>118 E DAHLGREN AV 1</td> <td>TF</td> <td>303</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>       | 118 E DAHLGREN AV 1  | TF | 303 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 216  | CREW-INSRPRCHANG <td>NSP-REPR <td>1182 SEASIDE D</td> <td>TF</td> <td>515</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>            | NSP-REPR <td>1182 SEASIDE D</td> <td>TF</td> <td>515</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>            | 1182 SEASIDE D       | TF | 515 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 273  | CREW-INSRPRCHANG <td>NSP-REPR <td>1824 WOOD #10</td> <td>TF</td> <td>605</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>             | NSP-REPR <td>1824 WOOD #10</td> <td>TF</td> <td>605</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>             | 1824 WOOD #10        | TF | 605 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 84   | CREW-INSRPRCHANG <td>NSP-REPR <td>1824 WOOD #10</td> <td>TF</td> <td>605</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>             | NSP-REPR <td>1824 WOOD #10</td> <td>TF</td> <td>605</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>             | 1824 WOOD #10        | TF | 605 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 754  | CREW-INSRPRCHANG <td>NSP-REPR <td>12022 SEA SHORE D</td> <td>TF</td> <td>485</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>         | NSP-REPR <td>12022 SEA SHORE D</td> <td>TF</td> <td>485</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>         | 12022 SEA SHORE D    | TF | 485 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 182  | CREW-INSRPRCHANG <td>NSP-REPR <td>114 W RITTENHOUSS 1</td> <td>TF</td> <td>536</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>       | NSP-REPR <td>114 W RITTENHOUSS 1</td> <td>TF</td> <td>536</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>       | 114 W RITTENHOUSS 1  | TF | 536 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 78   | CREW-INSRPRCHANG <td>NSP-REPR <td>14219 BAY GARDENS</td> <td>TF</td> <td>475</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>         | NSP-REPR <td>14219 BAY GARDENS</td> <td>TF</td> <td>475</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>         | 14219 BAY GARDENS    | TF | 475 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 192  | CREW-INSRPRCHANG <td>NSP-REPR <td>15907 AVENUE C #11</td> <td>TF</td> <td>585</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>        | NSP-REPR <td>15907 AVENUE C #11</td> <td>TF</td> <td>585</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>        | 15907 AVENUE C #11   | TF | 585 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 480  | CREW-INSRPRCHANG <td>NSP-REPR <td>7330 MEADOWSHIRE 1</td> <td>TF</td> <td>485</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>        | NSP-REPR <td>7330 MEADOWSHIRE 1</td> <td>TF</td> <td>485</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>        | 7330 MEADOWSHIRE 1   | TF | 485 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 714  | CREW-INSRPRCHANG <td>NSP-REPR <td>9304 BRIAR FOREST 1</td> <td>TF</td> <td>505</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>       | NSP-REPR <td>9304 BRIAR FOREST 1</td> <td>TF</td> <td>505</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>       | 9304 BRIAR FOREST 1  | TF | 505 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 270  | CREW-INSRPRCHANG <td>NSP-REPR <td>18410 RAINBOW LAK 2</td> <td>TF</td> <td>485</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>       | NSP-REPR <td>18410 RAINBOW LAK 2</td> <td>TF</td> <td>485</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>       | 18410 RAINBOW LAK 2  | TF | 485 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 304  | CREW-INSRPRCHANG <td>NSP-REPR <td>8607 DRINKMEYER 2</td> <td>TF</td> <td>515</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>         | NSP-REPR <td>8607 DRINKMEYER 2</td> <td>TF</td> <td>515</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>         | 8607 DRINKMEYER 2    | TF | 515 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 80   | CREW-INSRPRCHANG <td>NSP-REPR <td>8730 HARRELL A</td> <td>TF</td> <td>415</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>            | NSP-REPR <td>8730 HARRELL A</td> <td>TF</td> <td>415</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>            | 8730 HARRELL A       | TF | 415 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 945  | CREW-INSRPRCHANG <td>NSP-REPR <td>1104 PIPE LINE</td> <td>TF</td> <td>548</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>            | NSP-REPR <td>1104 PIPE LINE</td> <td>TF</td> <td>548</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>            | 1104 PIPE LINE       | TF | 548 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 351  | CREW-INSRPRCHANG <td>NSP-REPR <td>14835 WEIL PLACE</td> <td>TF</td> <td>458</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>          | NSP-REPR <td>14835 WEIL PLACE</td> <td>TF</td> <td>458</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>          | 14835 WEIL PLACE     | TF | 458 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 30   | CREW-INSRPRCHANG <td>NSP-REPR <td>14835 WEIL PLACE</td> <td>TF</td> <td>536</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>          | NSP-REPR <td>14835 WEIL PLACE</td> <td>TF</td> <td>536</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>          | 14835 WEIL PLACE     | TF | 536 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 30   | CREW-INSRPRCHANG <td>NSP-REPR <td>8255 MAXIE</td> <td>TF</td> <td>517</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>                | NSP-REPR <td>8255 MAXIE</td> <td>TF</td> <td>517</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>                | 8255 MAXIE           | TF | 517 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 135  | CREW-INSRPRCHANG <td>NSP-REPR <td>3814 AVENUE G 1/2</td> <td>TF</td> <td>548</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>         | NSP-REPR <td>3814 AVENUE G 1/2</td> <td>TF</td> <td>548</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>         | 3814 AVENUE G 1/2    | TF | 548 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 57   | CREW-INSRPRCHANG <td>NSP-REPR <td>7278 MEADOWVALE</td> <td>TF</td> <td>515</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>           | NSP-REPR <td>7278 MEADOWVALE</td> <td>TF</td> <td>515</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>           | 7278 MEADOWVALE      | TF | 515 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 328  | CREW-INSRPRCHANG <td>NSP-REPR <td>3515 CLINTON DR</td> <td>TF</td> <td>545</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>           | NSP-REPR <td>3515 CLINTON DR</td> <td>TF</td> <td>545</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>           | 3515 CLINTON DR      | TF | 545 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 185  | CREW-INSRPRCHANG <td>NSP-REPR <td>2514 GLEN HAVEN</td> <td>TF</td> <td>525</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>           | NSP-REPR <td>2514 GLEN HAVEN</td> <td>TF</td> <td>525</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>           | 2514 GLEN HAVEN      | TF | 525 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 469  | CREW-INSRPRCHANG <td>NSP-REPR <td>16610 LEWIS SCOTT 1</td> <td>TF</td> <td>643</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>       | NSP-REPR <td>16610 LEWIS SCOTT 1</td> <td>TF</td> <td>643</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>       | 16610 LEWIS SCOTT 1  | TF | 643 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 212  | CREW-INSRPRCHANG <td>NSP-REPR <td>308 W HENRIETTA</td> <td>TF</td> <td>604</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>           | NSP-REPR <td>308 W HENRIETTA</td> <td>TF</td> <td>604</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>           | 308 W HENRIETTA      | TF | 604 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 195  | CREW-INSRPRCHANG <td>NSP-REPR <td>1602 W 74TH</td> <td>TF</td> <td>539</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>               | NSP-REPR <td>1602 W 74TH</td> <td>TF</td> <td>539</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>               | 1602 W 74TH          | TF | 539 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 472  | CREW-INSRPRCHANG <td>NSP-REPR <td>103 W FRENCH FORKE 1</td> <td>TF</td> <td>487</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>      | NSP-REPR <td>103 W FRENCH FORKE 1</td> <td>TF</td> <td>487</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>      | 103 W FRENCH FORKE 1 | TF | 487 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 148  | CREW-INSRPRCHANG <td>NSP-REPR <td>3410 MONTROSE BL 1</td> <td>TF</td> <td>528</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>        | NSP-REPR <td>3410 MONTROSE BL 1</td> <td>TF</td> <td>528</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>        | 3410 MONTROSE BL 1   | TF | 528 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 315  | CREW-INSRPRCHANG <td>NSP-REPR <td>13435 WALNUT HOLLY 2</td> <td>TF</td> <td>515</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>      | NSP-REPR <td>13435 WALNUT HOLLY 2</td> <td>TF</td> <td>515</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>      | 13435 WALNUT HOLLY 2 | TF | 515 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 222  | CREW-INSRPRCHANG <td>NSP-REPR <td>2424 BAY AREA BLV 3</td> <td>TF</td> <td>475</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>       | NSP-REPR <td>2424 BAY AREA BLV 3</td> <td>TF</td> <td>475</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>       | 2424 BAY AREA BLV 3  | TF | 475 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 53   | CREW-INSRPRCHANG <td>NSP-REPR <td>7500 BELLERIVE DR 2</td> <td>TF</td> <td>565</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>       | NSP-REPR <td>7500 BELLERIVE DR 2</td> <td>TF</td> <td>565</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>       | 7500 BELLERIVE DR 2  | TF | 565 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 678  | CREW-INSRPRCHANG <td>NSP-REPR <td>7158 BELFORT ST</td> <td>TF</td> <td>555</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>           | NSP-REPR <td>7158 BELFORT ST</td> <td>TF</td> <td>555</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>           | 7158 BELFORT ST      | TF | 555 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 1639 | CREW-INSRPRCHANG <td>NSP-REPR <td>308 W HENRIETTA</td> <td>TF</td> <td>555</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>           | NSP-REPR <td>308 W HENRIETTA</td> <td>TF</td> <td>555</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>           | 308 W HENRIETTA      | TF | 555 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 278  | CREW-INSRPRCHANG <td>NSP-REPR <td>1811 BRIAR HOME</td> <td>TF</td> <td>475</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>           | NSP-REPR <td>1811 BRIAR HOME</td> <td>TF</td> <td>475</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>           | 1811 BRIAR HOME      | TF | 475 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 483  | CREW-INSRPRCHANG <td>NSP-REPR <td>2201 LYNNBELL 1</td> <td>TF</td> <td>575</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>           | NSP-REPR <td>2201 LYNNBELL 1</td> <td>TF</td> <td>575</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>           | 2201 LYNNBELL 1      | TF | 575 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 938  | CREW-INSRPRCHANG <td>NSP-REPR <td>7500 BELLERIVE DR 2</td> <td>TF</td> <td>505</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>       | NSP-REPR <td>7500 BELLERIVE DR 2</td> <td>TF</td> <td>505</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>       | 7500 BELLERIVE DR 2  | TF | 505 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 104  | CREW-INSRPRCHANG <td>NSP-REPR <td>13210 4 1/2</td> <td>TF</td> <td>604</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>               | NSP-REPR <td>13210 4 1/2</td> <td>TF</td> <td>604</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>               | 13210 4 1/2          | TF | 604 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 328  | CREW-INSRPRCHANG <td>NSP-REPR <td>3311 VISTA RD 2</td> <td>TF</td> <td>585</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>           | NSP-REPR <td>3311 VISTA RD 2</td> <td>TF</td> <td>585</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>           | 3311 VISTA RD 2      | TF | 585 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 648  | CREW-INSRPRCHANG <td>NSP-REPR <td>7555 BUBBLING SPR</td> <td>TF</td> <td>613</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>         | NSP-REPR <td>7555 BUBBLING SPR</td> <td>TF</td> <td>613</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>         | 7555 BUBBLING SPR    | TF | 613 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 200  | CREW-INSRPRCHANG <td>NSP-REPR <td>7539 BUBBLING SPR</td> <td>TF</td> <td>506</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>         | NSP-REPR <td>7539 BUBBLING SPR</td> <td>TF</td> <td>506</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>         | 7539 BUBBLING SPR    | TF | 506 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 200  | CREW-INSRPRCHANG <td>NSP-REPR <td>7523 BUBBLING SPR</td> <td>TF</td> <td>506</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>         | NSP-REPR <td>7523 BUBBLING SPR</td> <td>TF</td> <td>506</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>         | 7523 BUBBLING SPR    | TF | 506 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 330  | CREW-INSRPRCHANG <td>NSP-REPR <td>2806 WOODCREEK 1</td> <td>TF</td> <td>506</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>          | NSP-REPR <td>2806 WOODCREEK 1</td> <td>TF</td> <td>506</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>          | 2806 WOODCREEK 1     | TF | 506 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 | 112M | 4856202  | 120039800860 | T | 4/8/2003 | 1739 | 64 | 0 | 828  | CREW-INSRPRCHANG <td>NSP-REPR <td>2616 CHEW</td> <td>TF</td> <td>555</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td> </td>                 | NSP-REPR <td>2616 CHEW</td> <td>TF</td> <td>555</td> <td>REMOVING TRANSFORMER BANK</td> <td>NSP</td>                 | 2616 CHEW            | TF | 555 | REMOVING TRANSFORMER BANK                                | NSP |
| SCHEDULED INTER | SC | GL 09 | 32673 |      |          |              |   |          |      |    |   |      |   |  |                      |    |     |  |     |













**2. Provide the number of significant interruptions sustained during 2003 and the number lasting more than 24 hours. [Subst. R. §25.52(c)(5) and §25.52(e)(2)]**

Number of significant outages/events reported during 2003 = 9

Number of significant outages/events lasting more than 24 hours during 2003 = 1

**3. Provide the number of forced interruptions attributable to each cause shown on the 2003 Service Quality Report.**

Forced Interruptions  
1/1/2003 through 12/31/2003

| CAUSE                                  | # CASES |
|--|---------|
| Weather (Including Lightning)          | 10,496  |
| Vegetation                             | 5,575   |
| Animals and Birds                      | 5,472   |
| People (Including cars and farm equip) | 1,926   |
| Utility-owned Equipment                | 9,091   |
| Other                                  | 1,660   |
| Unknown                                | 6,659   |

**4. Describe the methodology used to calculate the annual average SAIFI value for each interruption class shown on the 2003 Service Quality Report. Include a description of the data used for the calculations.**

The CenterPoint Energy SAIFI reliability index is calculated from the outage records in our computer-based Outage Analysis System (OAS). OAS creates outage cases based on customer trouble calls, SCADA information, OAS circuit topology data, crew entries, and distribution controller entries. In order to calculate the 2003 annual SAIFI, all sustained interruptions were extracted from OAS. Then the number of customers affected by each sustained interruption is summed up for each of the four classifications. The classification of each sustained interruption is determined from the cause of the interruption as set forth in the table below and by the determination of major events. The sum for each classification is then divided by the total number of customers in the CenterPoint Energy system. This system customer count is derived by taking a snapshot of the OAS circuit topology data at the end of the year.

SAIFI = Total No. Sustained Customer Interruptions / Total No. of Customers In System

| PUC Category   | PUC Cause         | CNP Code | CNP Cause          |
|----------------|-------------------|----------|--------------------|
| FORCED INTERR. | EQUIPMENT FAILURE | E1       | TRANSFORMER        |
| FORCED INTERR. | EQUIPMENT FAILURE | E2       | REGULATOR          |
| FORCED INTERR. | EQUIPMENT FAILURE | E3       | RECLOSER           |
| FORCED INTERR. | EQUIPMENT FAILURE | E4       | CAPACITOR          |
| FORCED INTERR. | EQUIPMENT FAILURE | E5       | SECTIONALIZER      |
| FORCED INTERR. | EQUIPMENT FAILURE | E6       | POLE TOP SWITCH    |
| FORCED INTERR. | EQUIPMENT FAILURE | E7       | LIGHTNING ARRESTER |
| FORCED INTERR. | EQUIPMENT FAILURE | E8       | BU DISC OR BARREL  |
| FORCED INTERR. | EQUIPMENT FAILURE | E9       | INSULATOR          |
| FORCED INTERR. | EQUIPMENT FAILURE | F1       | PRIMARY CONDUCTOR  |
| FORCED INTERR. | EQUIPMENT FAILURE | F2       | SEC COND OR DROPS  |
| FORCED INTERR. | EQUIPMENT FAILURE | F3       | O/H PRIMARY CLAMP  |
| FORCED INTERR. | EQUIPMENT FAILURE | F4       | OH SEC/DR CL HOT L |
| FORCED INTERR. | EQUIPMENT FAILURE | F5       | OH SEC/DR CL NEUTR |
| FORCED INTERR. | EQUIPMENT FAILURE | F6       | GUY/ANCHOR         |
| FORCED INTERR. | EQUIPMENT FAILURE | F7       | ROTTEN POLE        |
| FORCED INTERR. | EQUIPMENT FAILURE | F8       | OTHER EQUIPMENT    |
| FORCED INTERR. | EQUIPMENT FAILURE | F9       | METER EQUIPMENT    |
| FORCED INTERR. | EQUIPMENT FAILURE | G1       | TERMINATOR         |
| FORCED INTERR. | EQUIPMENT FAILURE | G2       | SLACK SPANS        |
| FORCED INTERR. | EQUIPMENT FAILURE | M1       | 3 PHASE UG BREAKER |
| FORCED INTERR. | EQUIPMENT FAILURE | M2       | RELAY              |
| FORCED INTERR. | EQUIPMENT FAILURE | M3       | 3 PHASE UG CABLE   |
| FORCED INTERR. | EQUIPMENT FAILURE | M4       | NETWORK PROTECTOR  |
| FORCED INTERR. | EQUIPMENT FAILURE | U1       | SPLICE             |
| FORCED INTERR. | EQUIPMENT FAILURE | U2       | URD ELBOW          |
| FORCED INTERR. | EQUIPMENT FAILURE | U3       | URD BUSHING        |
| FORCED INTERR. | EQUIPMENT FAILURE | U4       | URD DROPS (HL&P)   |
| FORCED INTERR. | EQUIPMENT FAILURE | U5       | URD DROPS (CUST)   |
| FORCED INTERR. | EQUIPMENT FAILURE | U6       | URD SEC PDSTL TRML |
| FORCED INTERR. | EQUIPMENT FAILURE | U7       | URD XFMR SEC BUS   |
| FORCED INTERR. | OTHER             | C1       | LINE FUSE OPERATED |



|                   |                    |    |                     |
|-------------------|--------------------|----|---------------------|
| FORCED INTERR.    | OTHER              | C2 | XFMR FUSE OPERATED  |
| FORCED INTERR.    | OTHER              | C3 | WORK TAG            |
| FORCED INTERR.    | OTHER              | C4 | OTHER CIRCUIT       |
| FORCED INTERR.    | OTHER              | P1 | FOREIGN MATERIAL    |
| FORCED INTERR.    | OTHER              | P2 | HUMAN ERROR         |
| FORCED INTERR.    | OTHER              | P3 | OVERLOAD            |
| FORCED INTERR.    | OTHER              | P4 | OTHER               |
|                   |                    |    |                     |
| FORCED INTERR.    | THIRD PARTY CAUSES | T1 | VANDALISM           |
| FORCED INTERR.    | THIRD PARTY CAUSES | T2 | COLLISION           |
| FORCED INTERR.    | THIRD PARTY CAUSES | T3 | CONTRACTOR-NON HLP  |
| FORCED INTERR.    | THIRD PARTY CAUSES | T4 | CONTRACTOR (HL&P)   |
| FORCED INTERR.    | THIRD PARTY CAUSES | T5 | CUST EQP RELATED    |
| FORCED INTERR.    | THIRD PARTY CAUSES | T6 | ELECTRICAL CONTACT  |
| FORCED INTERR.    | THIRD PARTY CAUSES | T7 | FIRE                |
| FORCED INTERR.    | THIRD PARTY CAUSES | T8 | POLICE/LAW ENFRMNT  |
|                   |                    |    |                     |
| FORCED INTERR.    | UNKNOWN            | Z1 | UNKNOWN             |
|                   |                    |    |                     |
| FORCED INTERR.    | VEGETATION         | V1 | TREE CLEARANCE      |
| FORCED INTERR.    | VEGETATION         | V2 | FLLNG TREE IN EASE  |
| FORCED INTERR.    | VEGETATION         | V3 | FLLNG TREE OUT EAS  |
| FORCED INTERR.    | VEGETATION         | V4 | FALLING DEAD TREE   |
| FORCED INTERR.    | VEGETATION         | V5 | VINES               |
|                   |                    |    |                     |
| FORCED INTERR.    | WEATHER            | W1 | LIGHTNING           |
| FORCED INTERR.    | WEATHER            | W2 | STRONG WIND         |
| FORCED INTERR.    | WEATHER            | W3 | ICE                 |
| FORCED INTERR.    | WEATHER            | W4 | RISING WATER        |
| FORCED INTERR.    | WEATHER            | W5 | TORNADO             |
| FORCED INTERR.    | WEATHER            | W6 | HURRICANE           |
|                   |                    |    |                     |
| FORCED INTERR.    | WILDLIFE           | A1 | SQUIRREL            |
| FORCED INTERR.    | WILDLIFE           | A2 | BIRD                |
| FORCED INTERR.    | WILDLIFE           | A3 | ANTS                |
| FORCED INTERR.    | WILDLIFE           | A4 | SNAKE               |
| FORCED INTERR.    | WILDLIFE           | A5 | OTHER WILDLIFE      |
|                   |                    |    |                     |
|                   |                    |    |                     |
| OUTSIDE CAUSES    | GENERATION         | C5 | GENERATION          |
|                   |                    |    |                     |
| OUTSIDE CAUSES    | SUBSTATION         | C7 | SUBSTATION          |
|                   |                    |    |                     |
| OUTSIDE CAUSES    | TRANSMISSION       | C6 | TRANSMISSION        |
|                   |                    |    |                     |
|                   |                    |    |                     |
| SCHEDULED INTERR. | SCHEDULED INTERR.  | CR | CREW-CUST REQUEST   |
| SCHEDULED INTERR. | SCHEDULED INTERR.  | DC | CREW-DANGER COND TN |
| SCHEDULED INTERR. | SCHEDULED INTERR.  | EM | CREW-SYS EMERGENCY  |
| SCHEDULED INTERR. | SCHEDULED INTERR.  | GA | CREW-NO GRANT ACCS  |
| SCHEDULED INTERR. | SCHEDULED INTERR.  | IN | CREW-INS/RPR/CHANG  |

|                   |                   |    |                    |
|-------------------|-------------------|----|--------------------|
| SCHEDULED INTERR. | SCHEDULED INTERR. | LA | CREW-LEGAL AUTHRTY |
| SCHEDULED INTERR. | SCHEDULED INTERR. | RS | CREW-RESTR SVC OTH |
| SCHEDULED INTERR. | SCHEDULED INTERR. | TM | CREW-TAMPER/BYPASS |
| SCHEDULED INTERR. | SCHEDULED INTERR. | UU | CREW-UNAUTHRZD USE |
| SCHEDULED INTERR. | SCHEDULED INTERR. | VT | CREW-VIO OF TARIFF |

**5. Describe the methodology used to calculate the annual average SAIDI value for each interruption class shown on the 2003 Service Quality Report. Include a description of the data used for the calculations.**

The CenterPoint Energy SAIDI reliability index is calculated from the outage records in our computer-based Outage Analysis System (OAS). OAS creates outage cases based on customer trouble calls, SCADA information, OAS circuit topology data, crew entries, and distribution controller entries. In order to calculate the 2003 annual SAIDI, all sustained interruptions were extracted from OAS. Then the number of customers affected by each sustained interruption is multiplied by the duration of the interruption. These customer-minutes of sustained interruption are then summed up for all interruptions for each of the four classifications. The classification of each sustained interruption is determined from the cause of the interruption as set forth in the table below and by the determination of major events. The sum for each classification is then divided by the total number of customers in the CenterPoint Energy system. This system customer count is derived by taking a snapshot of the OAS circuit topology data at the end of the year.

$$\text{SAIDI} = \text{Sum of Sustained Customer Interruption Durations} / \text{Total No. Of Customers In System}$$

| PUC Category   | PUC Cause         | CNP Code | CNP Cause          |
|----------------|-------------------|----------|--------------------|
| FORCED INTERR. | EQUIPMENT FAILURE | E1       | TRANSFORMER        |
| FORCED INTERR. | EQUIPMENT FAILURE | E2       | REGULATOR          |
| FORCED INTERR. | EQUIPMENT FAILURE | E3       | RECLOSER           |
| FORCED INTERR. | EQUIPMENT FAILURE | E4       | CAPACITOR          |
| FORCED INTERR. | EQUIPMENT FAILURE | E5       | SECTIONALIZER      |
| FORCED INTERR. | EQUIPMENT FAILURE | E6       | POLE TOP SWITCH    |
| FORCED INTERR. | EQUIPMENT FAILURE | E7       | LIGHTNING ARRESTER |
| FORCED INTERR. | EQUIPMENT FAILURE | E8       | BU DISC OR BARREL  |
| FORCED INTERR. | EQUIPMENT FAILURE | E9       | INSULATOR          |
| FORCED INTERR. | EQUIPMENT FAILURE | F1       | PRIMARY CONDUCTOR  |
| FORCED INTERR. | EQUIPMENT FAILURE | F2       | SEC COND OR DROPS  |
| FORCED INTERR. | EQUIPMENT FAILURE | F3       | O/H PRIMARY CLAMP  |
| FORCED INTERR. | EQUIPMENT FAILURE | F4       | OH SEC/DR CL HOT L |
| FORCED INTERR. | EQUIPMENT FAILURE | F5       | OH SEC/DR CL NEUTR |
| FORCED INTERR. | EQUIPMENT FAILURE | F6       | GUY/ANCHOR         |
| FORCED INTERR. | EQUIPMENT FAILURE | F7       | ROTTEN POLE        |
| FORCED INTERR. | EQUIPMENT FAILURE | F8       | OTHER EQUIPMENT    |
| FORCED INTERR. | EQUIPMENT FAILURE | F9       | METER EQUIPMENT    |
| FORCED INTERR. | EQUIPMENT FAILURE | G1       | TERMINATOR         |
| FORCED INTERR. | EQUIPMENT FAILURE | G2       | SLACK SPANS        |
| FORCED INTERR. | EQUIPMENT FAILURE | M1       | 3 PHASE UG BREAKER |
| FORCED INTERR. | EQUIPMENT FAILURE | M2       | RELAY              |
| FORCED INTERR. | EQUIPMENT FAILURE | M3       | 3 PHASE UG CABLE   |
| FORCED INTERR. | EQUIPMENT FAILURE | M4       | NETWORK PROTECTOR  |
| FORCED INTERR. | EQUIPMENT FAILURE | U1       | SPLICE             |
| FORCED INTERR. | EQUIPMENT FAILURE | U2       | URD ELBOW          |
| FORCED INTERR. | EQUIPMENT FAILURE | U3       | URD BUSHING        |
| FORCED INTERR. | EQUIPMENT FAILURE | U4       | URD DROPS (HL&P)   |
| FORCED INTERR. | EQUIPMENT FAILURE | U5       | URD DROPS (CUST)   |
| FORCED INTERR. | EQUIPMENT FAILURE | U6       | URD SEC PDSTL TRML |
| FORCED INTERR. | EQUIPMENT FAILURE | U7       | URD XFMR SEC BUS   |

|                   |                    |    |                    |
|-------------------|--------------------|----|--------------------|
|                   |                    |    |                    |
| FORCED INTERR.    | OTHER              | C1 | LINE FUSE OPERATED |
| FORCED INTERR.    | OTHER              | C2 | XFMR FUSE OPERATED |
| FORCED INTERR.    | OTHER              | C3 | WORK TAG           |
| FORCED INTERR.    | OTHER              | C4 | OTHER CIRCUIT      |
| FORCED INTERR.    | OTHER              | P1 | FOREIGN MATERIAL   |
| FORCED INTERR.    | OTHER              | P2 | HUMAN ERROR        |
| FORCED INTERR.    | OTHER              | P3 | OVERLOAD           |
| FORCED INTERR.    | OTHER              | P4 | OTHER              |
|                   |                    |    |                    |
| FORCED INTERR.    | THIRD PARTY CAUSES | T1 | VANDALISM          |
| FORCED INTERR.    | THIRD PARTY CAUSES | T2 | COLLISION          |
| FORCED INTERR.    | THIRD PARTY CAUSES | T3 | CONTRACTOR-NON HLP |
| FORCED INTERR.    | THIRD PARTY CAUSES | T4 | CONTRACTOR (HL&P)  |
| FORCED INTERR.    | THIRD PARTY CAUSES | T5 | CUST EQP RELATED   |
| FORCED INTERR.    | THIRD PARTY CAUSES | T6 | ELECTRICAL CONTACT |
| FORCED INTERR.    | THIRD PARTY CAUSES | T7 | FIRE               |
| FORCED INTERR.    | THIRD PARTY CAUSES | T8 | POLICE/LAW ENFRMNT |
|                   |                    |    |                    |
| FORCED INTERR.    | UNKNOWN            | Z1 | UNKNOWN            |
|                   |                    |    |                    |
| FORCED INTERR.    | VEGETATION         | V1 | TREE CLEARANCE     |
| FORCED INTERR.    | VEGETATION         | V2 | FLLNG TREE IN EASE |
| FORCED INTERR.    | VEGETATION         | V3 | FLLNG TREE OUT EAS |
| FORCED INTERR.    | VEGETATION         | V4 | FALLING DEAD TREE  |
| FORCED INTERR.    | VEGETATION         | V5 | VINES              |
|                   |                    |    |                    |
| FORCED INTERR.    | WEATHER            | W1 | LIGHTNING          |
| FORCED INTERR.    | WEATHER            | W2 | STRONG WIND        |
| FORCED INTERR.    | WEATHER            | W3 | ICE                |
| FORCED INTERR.    | WEATHER            | W4 | RISING WATER       |
| FORCED INTERR.    | WEATHER            | W5 | TORNADO            |
| FORCED INTERR.    | WEATHER            | W6 | HURRICANE          |
|                   |                    |    |                    |
| FORCED INTERR.    | WILDLIFE           | A1 | SQUIRREL           |
| FORCED INTERR.    | WILDLIFE           | A2 | BIRD               |
| FORCED INTERR.    | WILDLIFE           | A3 | ANTS               |
| FORCED INTERR.    | WILDLIFE           | A4 | SNAKE              |
| FORCED INTERR.    | WILDLIFE           | A5 | OTHER WILDLIFE     |
|                   |                    |    |                    |
|                   |                    |    |                    |
| OUTSIDE CAUSES    | GENERATION         | C5 | GENERATION         |
|                   |                    |    |                    |
| OUTSIDE CAUSES    | SUBSTATION         | C7 | SUBSTATION         |
|                   |                    |    |                    |
| OUTSIDE CAUSES    | TRANSMISSION       | C6 | TRANSMISSION       |
|                   |                    |    |                    |
|                   |                    |    |                    |
| SCHEDULED INTERR. | SCHEDULED INTERR.  | CR | CREW-CUST REQUEST  |
| SCHEDULED INTERR. | SCHEDULED INTERR.  | DC | CREW-DANGER CONDTN |
| SCHEDULED INTERR. | SCHEDULED INTERR.  | EM | CREW-SYS EMERGENCY |

|                   |                   |    |                    |
|-------------------|-------------------|----|--------------------|
| SCHEDULED INTERR. | SCHEDULED INTERR. | GA | CREW-NO GRANT ACCS |
| SCHEDULED INTERR. | SCHEDULED INTERR. | IN | CREW-INS/RPR/CHANG |
| SCHEDULED INTERR. | SCHEDULED INTERR. | LA | CREW-LEGAL AUTHRTY |
| SCHEDULED INTERR. | SCHEDULED INTERR. | RS | CREW-RESTR SVC OTH |
| SCHEDULED INTERR. | SCHEDULED INTERR. | TM | CREW-TAMPER/BYPASS |
| SCHEDULED INTERR. | SCHEDULED INTERR. | UU | CREW-UNAUTHRZD USE |
| SCHEDULED INTERR. | SCHEDULED INTERR. | VT | CREW-VIO OF TARIFF |

**6. Describe the methodology used to calculate the system-wide SAIFI standard for 2003, and include a description of the data used for the calculation. Provide the standard for 2003 and provide the calculation showing how this standard was determined. [Subst. R. §25.52(f)(1)]**

The system-wide SAIFI standard for 2003 was determined by averaging the system-wide SAIFI for 1998, 1999, and 2000. The annual SAIFIs used in the calculation were derived using all sustained Forced Interruptions from CenterPoint Energy's Outage Analysis System. Then, 5% was added to this average.

The system-wide SAIFI standard for 2003 was 1.44. The calculation for the system-wide SAIFI standard is set forth below.

Calculation Details

| Year | SAIFI       |   |    |   |      |   |      |
|------|-------------|---|----|---|------|---|------|
| 1998 | 1.48        |   |    |   |      |   |      |
| 1999 | 1.23        |   |    |   |      |   |      |
| 2000 | <u>1.40</u> |   |    |   |      |   |      |
|      | (4.11       | ÷ | 3) | X | 1.05 | = | 1.44 |

**7. Describe the methodology used to calculate the system-wide SAIDI standard for 2003, and include a description of the data used for the calculation. Provide the standard for 2003 and provide the calculation showing how this standard was determined. [Subst. R. §25.52(f)(1)]**

The system-wide SAIDI standard for 2003 was determined by averaging the system-wide SAIDI for 1998, 1999, and 2000. The annual SAIDIs used in the calculation were derived using all sustained Forced Interruptions from CenterPoint Energy's Outage Analysis System. Then, 5% was added to this average.

The system-wide SAIDI standard for 2003 was 112.87. The calculation for the system-wide SAIDI standard is set forth below.

Calculation Details

| Year | SAIDI         |
|------|---------------|
| 1998 | 122.55        |
| 1999 | 91.35         |
| 2000 | <u>108.59</u> |

$$(322.49 \div 3) \times 1.05 = 112.87$$

**8. Identify and list the feeders on the 2003 Service Quality Report that did not meet either the SAIDI or SAIFI requirements of Subst. R. §25.52(f)(2)(A). Explain why each feeder did not meet the requirements and what action(s) have been or will be taken to achieve compliance for the feeder (i.e., to prevent the feeder repeating for a third year).**

List of Repeating Worst 10% SAIFI and/or SAIDI Circuits

|     |    |
|-----|----|
| AR  | 42 |
| BAR | 42 |
| BAR | 44 |
| BAR | 46 |
| BM  | 07 |
| BV  | 41 |
| BW  | 05 |
| GL  | 06 |
| GN  | 06 |
| HB  | 04 |
| HB  | 43 |
| HB  | 45 |
| HE  | 10 |
| HG  | 04 |
| HY  | 12 |
| KW  | 44 |
| LC  | 01 |
| LW  | 41 |
| LW  | 42 |
| MB  | 08 |
| NP  | 41 |
| OB  | 42 |
| OR  | 01 |
| PI  | 43 |
| QV  | 05 |
| RA  | 42 |
| SE  | 04 |
| ST  | 16 |
| STW | 01 |
| STW | 02 |
| STW | 03 |
| STW | 05 |
| TM  | 04 |
| TWG | 43 |
| WD  | 43 |
| WI  | 02 |



# CenterPoint Energy Repeating Circuit Analysis

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| Report Legend ..... | i |
|---------------------|---|

**Repeating 10% Circuits**

|                          |    |
|--------------------------|----|
| Arcola 42 .....          | 1  |
| Barker 42 .....          | 2  |
| Barker 44 .....          | 3  |
| Barker 46 .....          | 4  |
| Bayway 05 .....          | 5  |
| Brazos Valley 41 .....   | 6  |
| Britmoore 07 .....       | 7  |
| Galveston 06 .....       | 8  |
| Grant 06 .....           | 9  |
| Harrisburg 04 .....      | 10 |
| Hayes 12 .....           | 11 |
| Heights 10 .....         | 12 |
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| Lockwood 41 .....        | 17 |
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| Mont Belvieu 08 .....    | 19 |
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| Westheimer 02 .....      | 35 |
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# 2002-2003 CenterPoint Energy Repeating Circuit Report Legend

Circuit name here (Ckt abbreviation) – Number of customers on the circuit here

Repeating Indices: All indices for which this circuit is repeating are listed here

## SAIDI

If the circuit is repeating due to SAIDI, a chart will be displayed here showing the leading causes of interruptions for 2002 and 2003.

A complete list of causes is listed on page ii.

\*See note 1 below.

SAIDI values and ranks for 2002, 2003 & thru Apr 2004

## SAIFI

If the circuit is repeating due to SAIFI, a chart will be displayed here showing the leading causes of interruptions for 2002 and 2003.

A complete list of causes is listed on page ii.

\*See note 1 below.

SAIFI values and ranks for 2002, 2003 & thru Apr 2004

## Reliability Expenditures

Table showing expenditures by category from 10/1/02 – 9/30/03 (2003) and from 10/1/2003 – 5/10/04 (2004 YTD). See note 2 below.

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- Actions taken in 2003 to address 2002 SAIDI or SAIFI.

#### Notes:

- Any special information is listed here.

### 2004 Reliability Action Items

- Year-To-Date actions taken in 2004 to address 2003 SAIDI or SAIFI.

#### Notes:

- Any special information is listed here.

Note 1 – Table shows the % of the total SAIDI or total SAIFI value attributed to circuit or line fuse level interruptions.

Note 2 – We start projecting the 10% circuits in August of the current year and begin addressing problems in October for the chosen circuits.

## 2002-2003 CenterPoint Energy Repeating Circuit Report Legend

Complete list of Rollup Causes and the OAS Reported Cause

| Rollup Cause          | OAS Reported Cause  | Rollup Cause   | OAS Reported Cause  |
|-----------------------|---|----------------|---|
| Collision             | COLLISION   | Trees / wind   | FALLING DEAD TREE   |
| Customer / Contractor | CONTRACTOR (HL&P)<br>CONTRACTOR-NON HLP<br>CUST EQP RELATED   |                | FLLNG TREE IN EASE  |
| Foreign Material      | FOREIGN MATERIAL  |                | FLLNG TREE OUT EAS  |
| Human Error           | ELECTRICAL CONTACT<br>HUMAN ERROR<br>OTHER CIRCUIT<br>VANDALISM   |                | STRONG WIND   |
| Miscellaneous         | (blank)<br>3 PHASE UG CABLE<br>FIRE<br>OTHER<br>UNKNOWN   |                | TREE  |
| OH equip              | BU DISC OR BARREL<br>CAPACITOR<br>GUY/ANCHOR<br>INSULATOR<br>LIGHTNING ARRESTER<br>LINE FUSE OPERATED<br>METER EQUIPMENT<br>O/H PRIMARY CLAMP<br>OH EQUIPMENT<br>OH SEC/DR CL HOT L<br>OH SEC/DR CL NEUTR<br>OTHER EQUIPMENT<br>OVERLOAD<br>POLE TOP SWITCH<br>PRIMARY CONDUCTOR<br>RECLOSER<br>REGULATOR<br>ROTTEN POLE<br>SEC COND OR DROPS<br>SLACK SPANS<br>TRANSFORMER | TREE CLEARANCE |   |
|                       |   | VINES          |   |
|                       |   | URD equip      | SPLICE<br>TERMINATOR<br>URD BUSHING<br>URD DROPS (CUST)<br>URD DROPS (HL&P)<br>URD ELBOW<br>URD EQUIPMENT<br>URD SEC PDSTL TRML<br>URD XFMR SEC BUS |
|                       |   | Varmint        | ANTS<br>BIRD<br>OTHER WILDLIFE<br>SNAKE<br>SQUIRREL   |
|                       |   | Weather        | HURRICANE<br>ICE<br>LIGHTNING<br>RISING WATER<br>WEATHER  |
|                       |   |                |   |
|                       |   |                |   |
|                       |   |                |   |
|                       |   |                |   |
|                       |   |                |   |

### General information

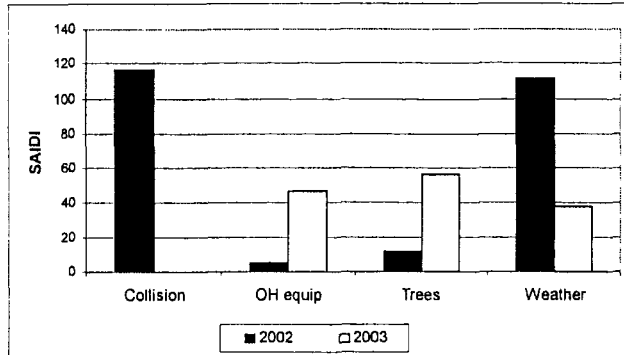
|   | 2002   | 2003   | April 2004 |
|---|--------|--------|------------|
| # of circuits in system                   | 1,397  | 1,403  | 1,404      |
| # of circuits with more than 10 customers | 1,303  | 1,313  | 1,316      |
| # of circuits on 10% list                 | 130    | 131    | 132        |
| System SAIDI                              | 105.01 | 85.01  | 25.16      |
| System SAIFI                              | 1.28   | 1.18   | 0.30       |
| Min SAIDI value for 10% ckts              | 224.16 | 177.81 | 66.72      |
| Min SAIFI value for 10% ckts              | 2.41   | 2.42   | 1.04       |

# 2002-2003 CenterPoint Energy Repeating Circuit Report

Arcola Ckt 42 (AR42) – 2,783 customers

Repeating Indices: 10% SAIDI, 10% SAIFI

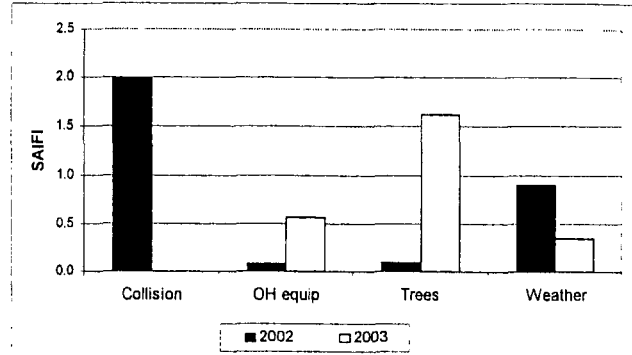
## SAIDI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 65%  | 49%  |
| Fuse                         | 31%  | 42%  |

| SAIDI |        |        |          |
|-------|--------|--------|----------|
|       | 2002   | 2003   | Apr 2004 |
| Value | 283.81 | 179.29 | 23.89    |
| Rank  | 63     | 129    | 362      |

## SAIFI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 75%  | 70%  |
| Fuse                         | 22%  | 25%  |

| SAIFI |      |      |          |
|-------|------|------|----------|
|       | 2002 | 2003 | Apr 2004 |
| Value | 3.43 | 2.92 | 0.13     |
| Rank  | 49   | 75   | 483      |

## Reliability Expenditures

| Year               | Service     |             |             |           |            |          | Total      |
|--------------------|-------------|-------------|-------------|-----------|------------|----------|------------|
|                    | Restoration | Major Equip | Minor Equip | URD Equip | Trees      | Poles    |            |
| 2003               | \$ 112,559  | \$ 4,871    | \$ 105,877  | \$ 12,346 | \$ 5,733   | \$ -     | \$ 241,385 |
| 2004 YTD (5/10/04) | \$ 52,822   | \$ 5,636    | \$ 107,054  | \$ 11,937 | \$ 134,107 | \$ 1,014 | \$ 312,572 |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Repaired/replaced equipment as part of Service Restoration Process.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Detailed circuit inspection completed on 2/12/03.
- 5) Infrared circuit inspection completed on 6/13/03.
- 6) Installed/repaired lightning arrestors to address primary root cause for weather related interruptions.
- 7) Multiple, random vehicle collisions accounted for approximately 42% of yearly SAIDI & 58% yearly SAIFI. Collision locations were evaluated for opportunities to reduce future potential collisions. Actions taken as necessary.

### 2004 Reliability Action Items

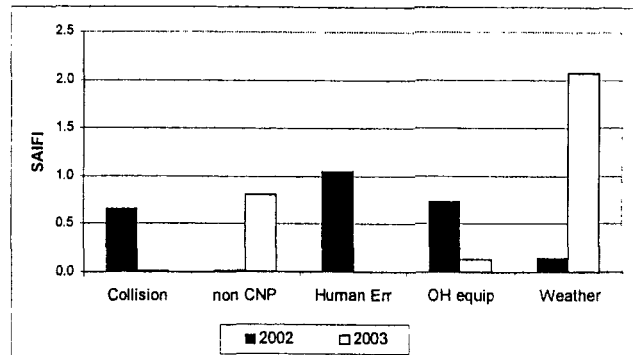
- 1) Completed root cause analysis to identify interruption sources.
- 2) Repaired/replaced equipment as part of Service Restoration Process.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Detailed circuit inspection completed 1Q 2004.
- 5) Installed/repaired lightning arrestors to address primary root cause for weather related interruptions.
- 6) Constructed additional circuit tie to expedite service restoration: complete - Jan 2004.
- 7) Tree trim circuit complete on 3/26/04.
- 8) Installed digital monitoring equipment at substation as part of a continuing effort to monitor and improve circuit performance.

# 2002-2003 CenterPoint Energy Repeating Circuit Report

Barker Ckt 42 (BAR42) – 2,740 customers

Repeating Indices: 10% SAIFI

## SAIFI



|      | % C&F of Total Interruptions |      |
|------|------------------------------|------|
|      | 2002                         | 2003 |
| Ckt  | 80%                          | 89%  |
| Fuse | 18%                          | 10%  |

|       | SAIFI |      |          |
|-------|-------|------|----------|
|       | 2002  | 2003 | Apr 2004 |
| Value | 2.98  | 3.12 | 0.13     |
| Rank  | 81    | 55   | 456      |

## Reliability Expenditures

| Year               | Service Restoration | Major Equip | Minor Equip | URD Equip | Trees      | Poles     | Total      |
|--------------------|---------------------|-------------|-------------|-----------|------------|-----------|------------|
| 2003               | \$ 90,917           | \$ 2,793    | \$ 27,798   | \$ 38,751 | \$ 130,820 | \$ 39,383 | \$ 330,463 |
| 2004 YTD (5/10/04) | \$ 29,015           | \$ 547      | \$ 3,933    | \$ 64,418 | \$ -       | \$ -      | \$ 97,913  |

\* Reliability expenditures do not reflect analysis/engineering costs.

## 2003 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection completed on 2/17/03.
- 3) Infrared circuit inspection completed on 2/24/03.
- 4) Repaired/replaced equipment as part of Service Restoration Process.
- 5) Multiple, random vehicle collisions accounted for approximately 22% of yearly SAIFI. Collision locations were evaluated for opportunities to reduce future potential collisions. Actions taken as necessary.
- 6) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 7) Installed/repaired lightning arrestors to address primary root cause for weather related interruptions.
- 8) Tree trim circuit completed 3/26/03.
- 9) Pole maintenance program utilized to identify and replace poles as necessary.

### Notes:

- In the Human Err category, 35% of yearly SAIFI was due to switching errors.

## 2004 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection completed 1Q 2004.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Repaired/replaced equipment as part of Service Restoration Process.
- 5) Additional automation equipment will be installed to minimize impact of interruptions.

### Notes:

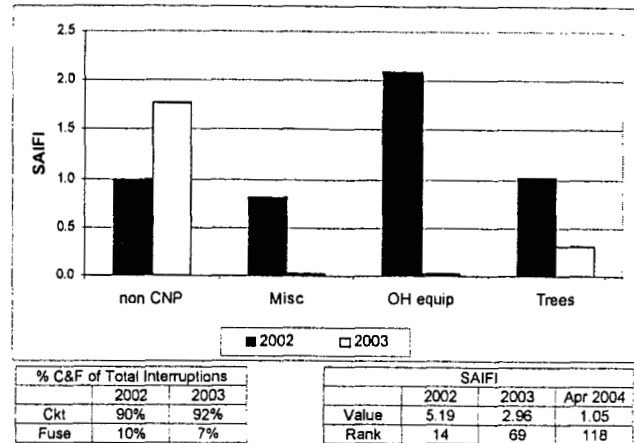
- The source of non-CNP SAIFI was a circuit level interruption caused by a contractor.
- The primary source of weather interruptions was lightning.

# 2002-2003 CenterPoint Energy Repeating Circuit Report

Barker Ckt 44 (BAR44) – 5,025 customers

Repeating Indices: 10% SAIFI

## SAIFI



## Reliability Expenditures

| Year               | Service Restoration | Major Equip | Minor Equip | URD Equip | Trees     | Poles     | Total      |
|--------------------|---------------------|-------------|-------------|-----------|-----------|-----------|------------|
| 2003               | \$ 39,906           | \$ 16,589   | \$ 9,290    | \$ 59,905 | \$ 29,846 | \$ 25,217 | \$ 180,753 |
| 2004 YTD (5/10/04) | \$ 23,450           | \$ 2,309    | \$ 1,992    | \$ 52,456 | \$ 6,250  | \$ -      | \$ 86,457  |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection completed on 2/5/03.
- 3) Infrared circuit inspection completed 2/24/03.
- 4) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 5) Repaired/replaced equipment as part of Service Restoration Process.
- 6) Tree trim circuit completed 12/22/03.
- 7) Pole maintenance program utilized to identify and replace poles as necessary.

#### Notes:

- The primary source of non-CNP SAIFI was a circuit level interruption caused by contractors.
- The primary source of Misc SAIFI was a circuit level interruption with an unknown cause.

### 2004 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection completed 1Q 2004.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Repaired/replaced equipment as part of Service Restoration Process.
- 5) Additional automation equipment will be installed to minimize impact of interruptions.
- 6) Localized tree trimming evaluated and completed as necessary.

#### Notes:

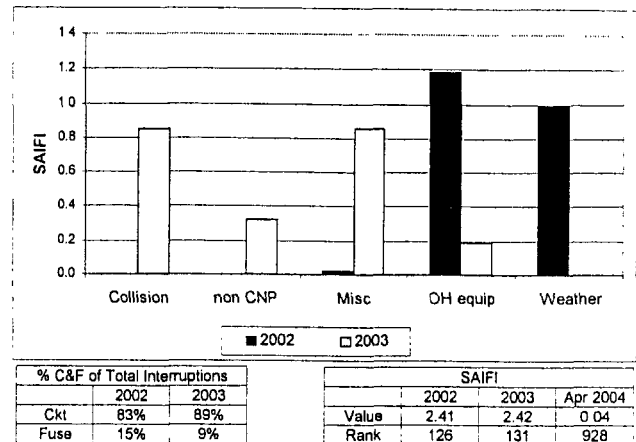
- The primary source of non-CNP SAIFI was circuit level interruptions caused by contractors.

# 2002-2003 CenterPoint Energy Repeating Circuit Report

Barker Ckt 46 (BAR46) – 4,651 customers

Repeating Indices: 10% SAIFI

## SAIFI



## Reliability Expenditures

| Year               | Service Restoration | Major Equip | Minor Equip | URD Equip | Trees     | Poles     | Total      |
|--------------------|---------------------|-------------|-------------|-----------|-----------|-----------|------------|
| 2003               | \$ 47,689           | \$ 556      | \$ 12,874   | \$ 51,169 | \$ 61,759 | \$ 40,751 | \$ 214,798 |
| 2004 YTD (5/10/04) | \$ 13,687           | \$ 2,350    | \$ 2,872    | \$ 31,347 | \$ 4,270  | \$ -      | \$ 54,526  |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection completed on 2/26/03.
- 3) Infrared circuit inspections completed 2/28/03 & 9/18/03.
- 4) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 5) Repaired/replaced equipment as part of Service Restoration Process.
- 6) Tree trim circuit completed 7/2/03.
- 7) Pole maintenance program utilized to identify and replace poles as necessary.

#### Notes:

- The primary source of weather interruptions was lightning.
- In the OH equipment category, 47% of the yearly SAIFI was due to a truck with a high load contacting the primary.

### 2004 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection completed 1Q 2004.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Repaired/replaced equipment as part of Service Restoration Process.
- 5) Additional automation equipment will be installed to minimize impact of interruptions.
- 6) Single vehicle collision accounted for approximately 35% of yearly SAIDI. Location was evaluated for opportunities to reduce future potential collisions. Actions taken as necessary.

#### Notes:

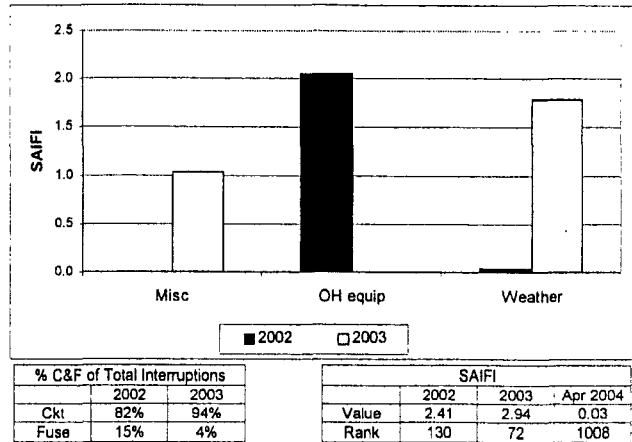
- The non-CNP SAIFI was attributable to a circuit level interruption caused by contractors.
- The Misc SAIFI was attributable to a circuit level interruption with an unknown cause.

# 2002-03 CenterPoint Energy Repeating Circuit Report

Bayway Ckt 05 (BW05) – 2,179 customers

Repeating Indices: 10% SAIFI

## SAIFI



## Reliability Expenditures

| Year               | Service     |             |             |           |           |          |           |
|--------------------|-------------|-------------|-------------|-----------|-----------|----------|-----------|
|                    | Restoration | Major Equip | Minor Equip | URD Equip | Trees     | Poles    | Total     |
| 2003               | \$ 11,588   | \$ 3,817    | \$ 9,080    | \$ 16,260 | \$ 22,712 | \$ 7,871 | \$ 71,328 |
| 2004 YTD (5/10/04) | \$ 5,969    | \$ 1,354    | \$ 6,380    | \$ 4,636  | \$ 1,168  | \$ -     | \$ 19,508 |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Detailed circuit inspection completed 1Q 2003.
- 2) Infrared circuit inspection completed on 10/5/03.
- 3) Completed root cause analysis to identify interruption sources.
- 4) Repaired/replaced equipment as part of Service Restoration Process.
- 5) Localized tree trimming evaluated and completed as necessary.
- 6) Pole maintenance program utilized to identify and replace poles as necessary.

### 2004 Reliability Action Items

- 1) Detailed circuit inspection completed 1Q 2004.
- 2) Completed root cause analysis to identify interruption sources.
- 3) Installed/repared lightning arrestors to address primary root cause for weather related interruptions.
- 4) Localized tree trimming evaluated and completed as necessary.

#### Notes:

- In the Misc category, 35% of yearly SAIFI was due to interruptions with unknown causes.

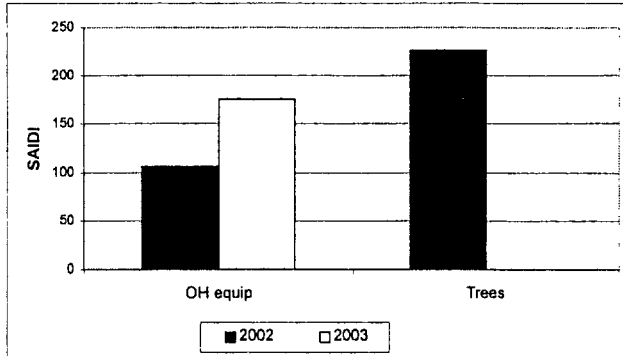


# 2002-2003 CenterPoint Energy Repeating Circuit Report

Brazos Valley Ckt 41 (BV41) – 213 customers

Repeating Indices: 10% SAIDI, 10% SAIFI

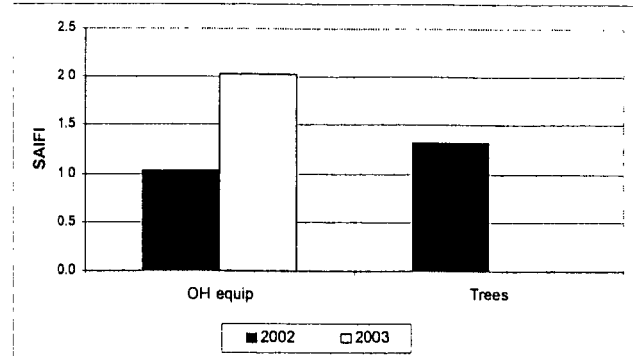
## SAIDI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 0%   | 31%  |
| Fuse                         | 99%  | 65%  |

| SAIDI |        |        |          |
|-------|--------|--------|----------|
|       | 2002   | 2003   | Apr 2004 |
| Value | 360.52 | 246.57 | 11.96    |
| Rank  | 27     | 50     | 566      |

## SAIFI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 0%   | 38%  |
| Fuse                         | 98%  | 59%  |

| SAIFI |      |      |          |
|-------|------|------|----------|
|       | 2002 | 2003 | Apr 2004 |
| Value | 2.74 | 2.46 | 0.04     |
| Rank  | 94   | 125  | 876      |

## Reliability Expenditures

| Year               | Service     |             |             |           |           |           |            |
|--------------------|-------------|-------------|-------------|-----------|-----------|-----------|------------|
|                    | Restoration | Major Equip | Minor Equip | URD Equip | Trees     | Poles     | Total      |
| 2003               | \$ 19,460   | \$ 4,177    | \$ 3,569    | \$ 1,509  | \$ 60,846 | \$ 30,978 | \$ 120,538 |
| 2004 YTD (5/10/04) | \$ 987      | \$ 499      | \$ 28,285   | \$ 639    | \$ -      | \$ -      | \$ 30,409  |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection completed 1Q 2003.
- 3) Infrared circuit inspection completed on 06/13/03.
- 4) Repaired/replaced equipment as part of Service Restoration Process.
- 5) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 6) Proactive circuit tree trim completed 7/14/03.

### 2004 Reliability Action Items

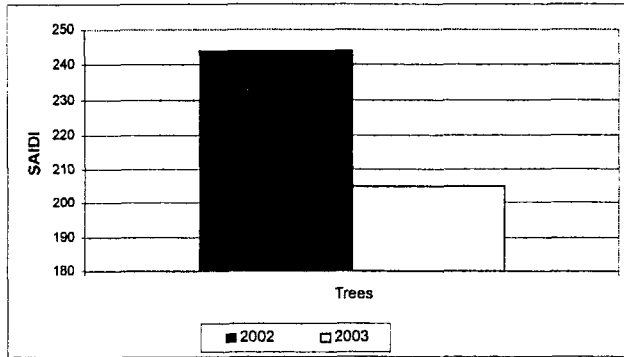
- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection completed 1Q 2004.
- 3) Repaired/replaced equipment as part of Service Restoration Process.
- 4) Installed/repared lightning arrestors to address primary root cause for weather related interruptions.
- 5) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 6) Redistribute load to accommodate growth.

# 2002-2003 CenterPoint Energy Repeating Circuit Report

Britmoore Ckt 07 (BM07) – 1,275 customers

Repeating Indices: 10% SAIDI

## SAIDI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 75%  | 86%  |
| Fuse                         | 20%  | 8%   |

| SAIDI |        |        |          |
|-------|--------|--------|----------|
|       | 2002   | 2003   | Apr 2004 |
| Value | 284.51 | 233.42 | 8.99     |
| Rank  | 62     | 57     | 659      |

## Reliability Expenditures

| Year               | Service Restoration | Major Equip | Minor Equip | URD Equip | Trees    | Poles     | Total     |
|--------------------|---------------------|-------------|-------------|-----------|----------|-----------|-----------|
| 2003               | \$ 14,343           | \$ 854      | \$ 16,234   | \$ 340    | \$ 2,723 | \$ 22,574 | \$ 57,069 |
| 2004 YTD (5/10/04) | \$ 6,769            | \$ 7,160    | \$ 7,497    | \$ 346    | \$ 3,548 | \$ 2,446  | \$ 27,766 |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Repaired/replaced equipment as part of Service Restoration Process.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Detailed circuit inspection completed on 3/27/03.
- 5) Localized tree trimming evaluated and completed as necessary.
- 6) Pole maintenance program utilized to identify and replace poles as necessary.

### 2004 Reliability Action Items

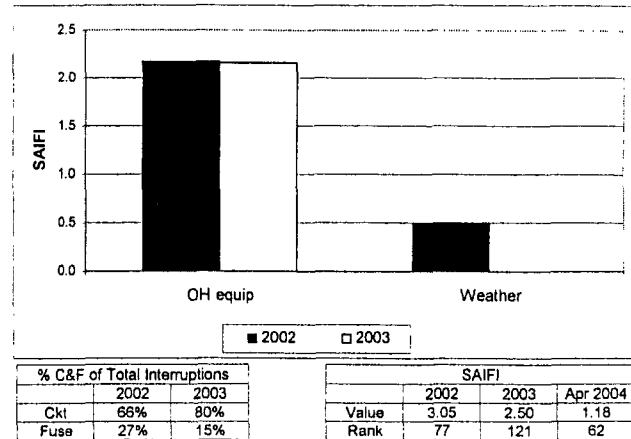
- 1) Completed root cause analysis to identify interruption sources.
- 2) Repaired/replaced equipment as part of Service Restoration Process.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Detailed circuit inspection completed on 3/16/04.
- 5) Infrared circuit inspection scheduled for 10/25/04.
- 6) Circuit tree trimming in progress. Expected finish by the end of June 2004.
- 7) Localized tree trimming evaluated and completed as necessary.
- 8) Pole maintenance program utilized to identify and replace poles as necessary.

# 2002-2003 CenterPoint Energy Repeating Circuit Report

Galveston Ckt 06 (GL06) – 1,746 customers

Repeating Indices: 10% SAIFI

## SAIFI



|      | 2002 | 2003 |
|------|------|------|
| Ckt  | 66%  | 80%  |
| Fuse | 27%  | 15%  |

|       | 2002 | 2003 | Apr 2004 |
|-------|------|------|----------|
| Value | 3.05 | 2.50 | 1.18     |
| Rank  | 77   | 121  | 62       |

## Reliability Expenditures

| Year               | Service     |             |             |           |       |           |           | Total |
|--------------------|-------------|-------------|-------------|-----------|-------|-----------|-----------|-------|
|                    | Restoration | Major Equip | Minor Equip | URD Equip | Trees | Poles     |           |       |
| 2003               | \$ 48,343   | \$ 8,905    | \$ 23,658   | \$ 870    | \$ 93 | \$ 11,172 | \$ 93,042 |       |
| 2004 YTD (5/10/04) | \$ 24,290   | \$ 1,074    | \$ 6,188    | \$ 291    | \$ -  | \$ 1,463  | \$ 33,307 |       |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Detailed circuit inspection completed 1Q 2003.
- 2) Completed root cause analysis to identify interruption sources.
- 3) Infrared circuit inspection completed on 04/09/03.
- 4) Repaired/replaced equipment as part of Service Restoration Process.
- 5) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 6) Installed/repaired lightning arrestors to address primary root cause for weather related interruptions.
- 7) Strategic use of polymer brackets and infrared inspections is employed to address equipment located near the Gulf of Mexico that is exposed to salt air and sea spray. These issues were captured in the Misc and OH equipment categories.
- 8) Pole maintenance program utilized to identify and replace poles as necessary.

### 2004 Reliability Action Items

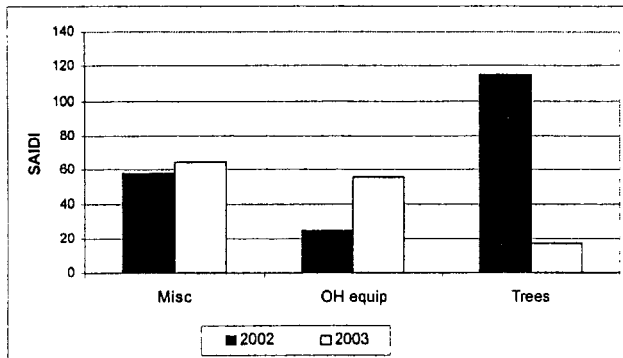
- 1) Detailed circuit inspection completed 1Q 2004.
- 2) Ongoing circuit inspections throughout 2004.
- 3) Completed root cause analysis to identify interruption sources.
- 4) Repaired/replaced equipment as part of Service Restoration Process.
- 5) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 6) Strategic use of polymer brackets and infrared inspections is employed to address equipment located near the Gulf of Mexico that is exposed to salt air and sea spray. These issues were captured in the Foreign Material category.
- 7) Pole maintenance program utilized to identify and replace poles as necessary.
- 8) Localized tree trimming will be evaluated and completed as necessary.

# 2002-2003 CenterPoint Energy Repeating Circuit Report

Grant Ckt 06 (GN06) – 866 customers

Repeating Indices: 10% SAIDI, 10% SAIFI

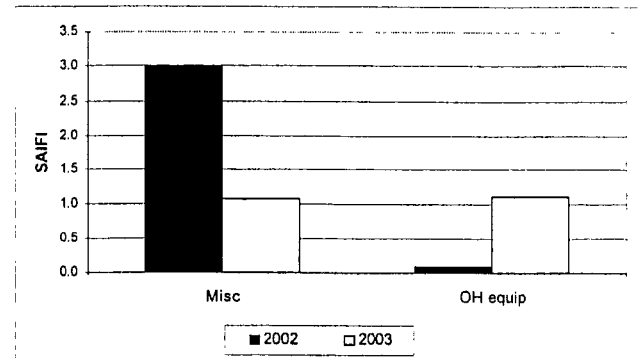
## SAIDI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 26%  | 63%  |
| Fuse                         | 69%  | 29%  |

| SAIDI |        |        |          |
|-------|--------|--------|----------|
|       | 2002   | 2003   | Apr 2004 |
| Value | 224.91 | 177.81 | 88.14    |
| Rank  | 127    | 131    | 80       |

## SAIFI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 79%  | 83%  |
| Fuse                         | 18%  | 14%  |

| SAIFI |      |      |          |
|-------|------|------|----------|
|       | 2002 | 2003 | Apr 2004 |
| Value | 3.80 | 2.96 | 0.3      |
| Rank  | 33   | 68   | 259      |

## Reliability Expenditures

| Year               | Service     |             |             |           |           |          |           | Total |
|--------------------|-------------|-------------|-------------|-----------|-----------|----------|-----------|-------|
|                    | Restoration | Major Equip | Minor Equip | URD Equip | Trees     | Poles    |           |       |
| 2003               | \$ 13,256   | \$ 5,992    | \$ 11,072   | \$ 4,951  | \$ 458    | \$ 1,880 | \$ 37,609 |       |
| 2004 YTD (5/10/04) | \$ 3,756    | \$ 5,356    | \$ 389      | \$ 2,844  | \$ 37,438 | \$ 4,102 | \$ 53,884 |       |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Plan

- 1) Repaired/replaced equipment as part of Service Restoration Process.
- 2) Detailed circuit inspection completed on 1/19/03. Repairs completed 3Q 2003.
- 3) Completed root cause analysis to identify interruption sources.
- 4) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 5) 83% of Misc SAIDI due to 3 $\phi$  underground equipment interruptions. Equipment repaired/replaced as necessary

#### Notes:

- The primary source of Misc SAIFI was due to construction. Work tags on the circuit resulted in sustained interruptions due to what would have normally been momentary interruptions. The cause of these interruptions is unknown.

### 2004 Reliability Action Plan

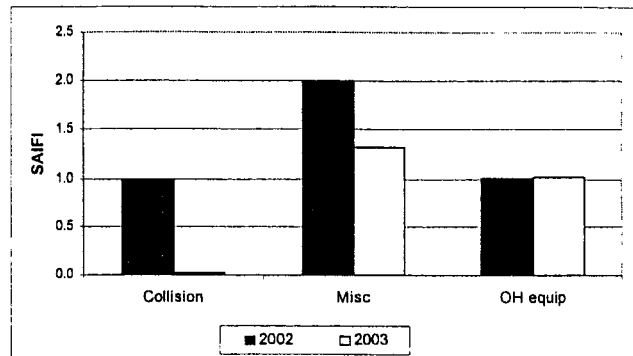
- 1) Repaired/replaced equipment as part of Service Restoration Process.
- 2) Detailed circuit inspection completed on 4/2/04. Repairs scheduled for completion by 5/31/04.
- 3) Infrared circuit inspection completed on 12/22/04. Additional inspection scheduled for 7/26/04.
- 4) Completed root cause analysis to identify interruption sources.
- 5) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 6) Circuit tree trim is 95% complete. Remainder of work is pending resolution of customer refusals to allow trim/removal of palm trees.
- 7) 90% of Misc SAIDI and 92% of Misc SAIFI due to dig-ins of 3 $\phi$  underground primary cable by non-CNP contractors.
- 8) SBC scheduled to complete maintenance of SBC joint-use poles in late 2004

# 2002-2003 CenterPoint Energy Repeating Circuit Report

Harrisburg Ckt 04 (HG04) – 1,840 customers

Repeating Indices: 10% SAIFI

## SAIFI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 95%  | 88%  |
| Fuse                         | 2%   | 8%   |

| SAIFI |      |      |          |
|-------|------|------|----------|
|       | 2002 | 2003 | Apr 2004 |
| Value | 4.20 | 2.64 | 0.02     |
| Rank  | 22   | 101  | 1041     |

## Reliability Expenditures

| Year               | Service Restoration | Major Equip | Minor Equip | URD Equip | Trees     | Poles    | Total     |
|--------------------|---------------------|-------------|-------------|-----------|-----------|----------|-----------|
| 2003               | \$ 27,710           | \$ 1,041    | \$ 8,636    | \$ 884    | \$ 13,437 | \$ 1,528 | \$ 53,238 |
| 2004 YTD (5/10/04) | \$ 8,697            | \$ 1,044    | \$ 3,485    | \$ -      | \$ 2,486  | \$ 2,314 | \$ 18,025 |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Detailed circuit inspection completed 1Q 2003.
- 2) Infrared circuit inspection completed on 8/12/03.
- 3) Completed root cause analysis to identify interruption sources.
- 4) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 5) One event accounted for approximately 25% SAIFI due to OH equipment interruptions. These issues have been resolved.
- 6) Single vehicle collision accounted for approximately 25% of yearly SAIFI. Location was evaluated for opportunities to reduce future potential collisions. Actions taken as necessary.
- 7) Localized tree trimming evaluated and completed as necessary.
- 8) Pole maintenance program utilized to identify and replace poles as necessary.

#### Notes:

- The primary source of Misc SAIFI was due to construction. Work tags on the circuit resulted in sustained interruptions due to what would have normally been momentary interruptions. The cause of these interruptions is unknown.

### 2004 Reliability Action Items

- 1) Detailed circuit inspection completed 1Q 2004.
- 2) Completed root cause analysis to identify interruption sources.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Three events accounted for approximately 38% SAIFI due to OH equipment interruptions. These issues have been resolved.
- 5) 38% of Misc SAIFI due to a single 3φ underground cable related interruption. This issue has been resolved.
- 6) Localized tree trimming evaluated and completed as necessary.
- 7) Pole maintenance program utilized to identify and replace poles as necessary.

#### Notes:

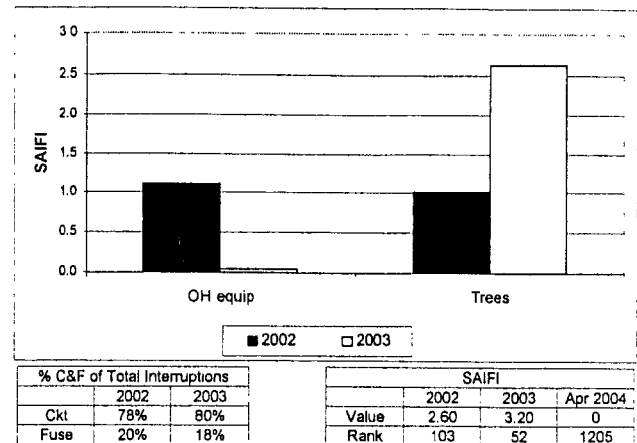
- Other source of Misc SAIFI was due to construction. A work tag on the circuit resulted in a sustained interruption due to what would have normally been a momentary interruption. The cause of this interruption is unknown.

# 2002-2003 CenterPoint Energy Repeating Circuit Report

Hayes Ckt 12 (HY12) – 976 customers

Repeating Indices: 10% SAIFI

## SAIFI



## Reliability Expenditures

| Year               | Service Restoration | Major Equip | Minor Equip | URD Equip | Trees     | Poles    | Total     |
|--------------------|---------------------|-------------|-------------|-----------|-----------|----------|-----------|
| 2003               | \$ 27,710           | \$ 1,041    | \$ 8,636    | \$ 884    | \$ 13,437 | \$ 1,528 | \$ 53,238 |
| 2004 YTD (5/10/04) | \$ 8,697            | \$ 1,044    | \$ 3,485    | \$ -      | \$ 2,486  | \$ 2,314 | \$ 18,025 |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection completed the first week of April 2003.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Infrared circuit inspection completed 6/17/03.
- 5) Repaired/replaced equipment as part of Service Restoration Process.
- 6) Localized tree trimming evaluated and completed as necessary.
- 7) Pole maintenance program utilized to identify and replace poles as necessary.

### 2004 Reliability Action Items

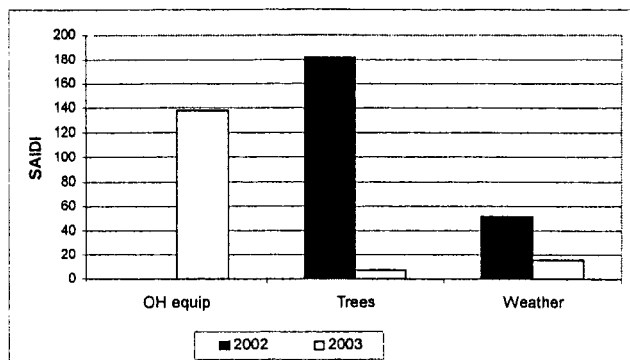
- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection completed 1Q 2004.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Repaired/replaced equipment as part of Service Restoration Process.
- 5) Circuit tree trim completed 8/1/03.
- 6) Pole maintenance program utilized to identify and replace poles as necessary.

# 2002-2003 CenterPoint Energy Repeating Circuit Report

Heights Ckt 10 (HE10) – 777 customers

Repeating Indices: 10% SAIDI

## SAIDI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 59%  | 64%  |
| Fuse                         | 34%  | 14%  |

| SAIDI |        |        |          |
|-------|--------|--------|----------|
|       | 2002   | 2003   | Apr 2004 |
| Value | 262.00 | 214.06 | 0.71     |
| Rank  | 80     | 75     | 1143     |

## Reliability Expenditures

| Year               | Service Restoration | Major Equip | Minor Equip | URD Equip | Trees     | Poles  | Total     |
|--------------------|---------------------|-------------|-------------|-----------|-----------|--------|-----------|
| 2003               | \$ 5,104            | \$ -        | \$ 446      | \$ 59     | \$ 28,662 | \$ -   | \$ 34,271 |
| 2004 YTD (5/10/04) | \$ 33,554           | \$ 1,335    | \$ 832      | \$ 514    | \$ -      | \$ 304 | \$ 36,538 |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Repaired/replaced equipment as part of Service Restoration Process.
- 2) Detailed circuit inspection completed on 3/1/03. Repairs completed 2Q 2003.
- 3) Circuit tree trim complete 05/12/03.
- 4) Completed root cause analysis to identify interruption sources.
- 5) Ongoing evaluation of protective device coordination in response to recurring interruption program.

#### Notes:

- The primary source of weather interruptions was lightning.

### 2004 Reliability Action Items

- 1) Repaired/replaced equipment as part of Service Restoration Process.
- 2) Detailed circuit inspection completed on 3/4/04. Repairs scheduled for completion by 5/31/04.
- 3) Infrared circuit inspection completed on 4/8/04. Additional inspection scheduled for 7/26/04.
- 4) Completed root cause analysis to identify interruption sources.
- 5) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 6) Two events accounted for approximately 66% SAIDI due to OH equipment interruptions. These issues have been resolved.
- 7) SBC scheduled to complete maintenance of SBC joint-use poles in late 2004.

#### Notes:

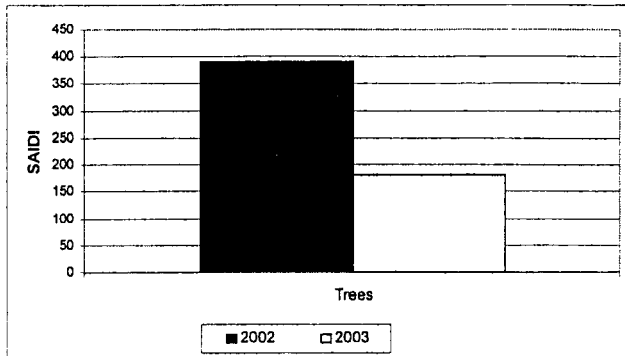
- The primary source of weather interruptions was lightning.

# 2002-2003 CenterPoint Energy Repeating Circuit Report

Humble Ckt 04 (HB04) – 655 customers

Repeating Indices: 10% SAIDI, 10% SAIFI

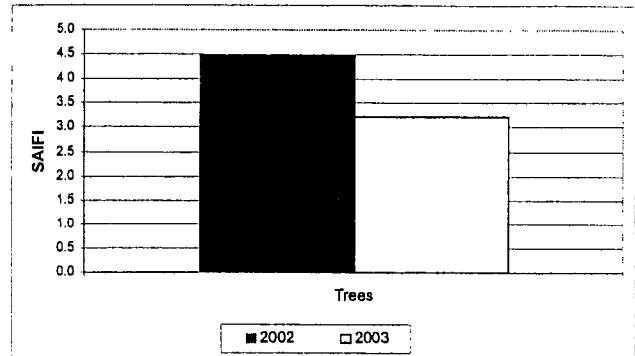
## SAIDI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 62%  | 65%  |
| Fuse                         | 36%  | 31%  |

| SAIDI |        |        |          |
|-------|--------|--------|----------|
|       | 2002   | 2003   | Apr 2004 |
| Value | 417.88 | 194.34 | 7.29     |
| Rank  | 19     | 103    | 731      |

## SAIFI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 85%  | 88%  |
| Fuse                         | 13%  | 9%   |

| SAIFI |      |      |          |
|-------|------|------|----------|
|       | 2002 | 2003 | Apr 2004 |
| Value | 4.71 | 3.35 | 0.05     |
| Rank  | 16   | 42   | 849      |

## Reliability Expenditures

| Year               | Service Restoration | Major Equip | Minor Equip | URD Equip | Trees      | Poles | Total      |
|--------------------|---------------------|-------------|-------------|-----------|------------|-------|------------|
| 2003               | \$ 17,628           | \$ 601      | \$ 1,310    | \$ 210    | \$ 6,155   | \$ -  | \$ 25,904  |
| 2004 YTD (5/10/04) | \$ 17,058           | \$ 1,326    | \$ 408      | \$ 495    | \$ 157,520 | \$ -  | \$ 176,807 |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Pole top switch infrared completed on 5/29/03.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Repaired/replaced equipment as part of Service Restoration Process.
- 5) Facility relocated to improve Service Restoration Process.
- 6) Localized tree trimming evaluated and completed as necessary.

### 2004 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 3) Repaired/replaced equipment as part of Service Restoration Process.
- 4) Circuit tree trimming completed on 3/19/04.

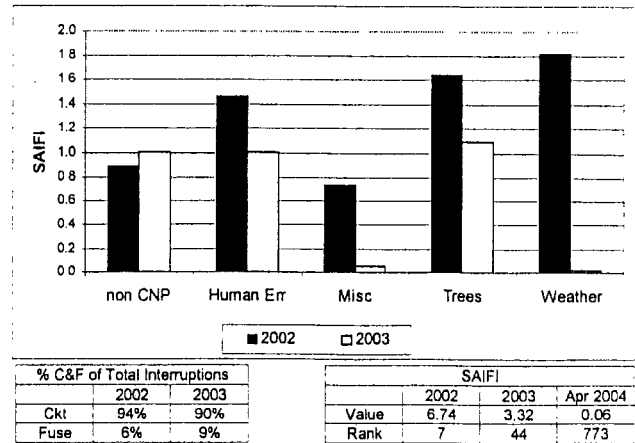


# 2002-2003 CenterPoint Energy Repeating Circuit Report

Humble Ckt 43 (HB43) – 4,623 customers

Repeating Indices: 10% SAIFI

## SAIFI



## Reliability Expenditures

| Year               | Service Restoration | Major Equip | Minor Equip | URD Equip | Trees     | Poles | Total     |
|--------------------|---------------------|-------------|-------------|-----------|-----------|-------|-----------|
| 2003               | \$ 5,524            | \$ -        | \$ -        | \$ 10,392 | \$ 65,843 | \$ -  | \$ 81,758 |
| 2004 YTD (5/10/04) | \$ 1,941            | \$ -        | \$ -        | \$ 2,665  | \$ -      | \$ -  | \$ 4,606  |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 3) Repaired/replaced equipment as part of Service Restoration Process.
- 4) Additional sectionalizing capabilities installed to minimize impact of interruptions.
- 5) Installed/repared lightning arrestors to address lightning as the primary root cause for weather related interruptions.
- 6) Circuit tree trimming completed on 9/12/03.

#### Notes:

- The primary source of non-CNP SAIFI was circuit level interruptions caused by tree contractors.
- The primary source of Human Err SAIFI was due to construction. Transmission crews made contact with distribution primary on two occasions causing the circuit to lock out on a work tag.
- The primary source of MISC SAIFI was due to construction. Work tags on the circuit resulted in sustained interruptions due to what would have normally been momentary interruptions. The cause of these interruptions is unknown.

### 2004 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection completed May 2004.
- 3) Infrared circuit inspection scheduled for 6/28/04.
- 4) Pole top switch infrared completed May 2004.
- 5) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 6) Repaired/replaced equipment as part of Service Restoration Process.

#### Notes:

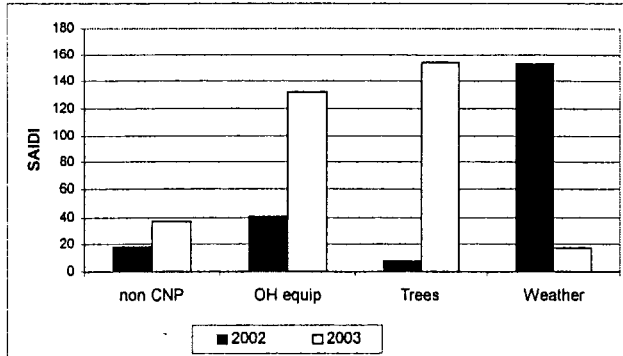
- The primary source of non-CNP SAIFI was a circuit level interruption caused by outside contractors (crane in primary).

# 2002-2003 CenterPoint Energy Repeating Circuit Report

Humble 45 (HB45) – 3,076 customers

Repeating Indices: 10% SAIDI, 10% SAIFI

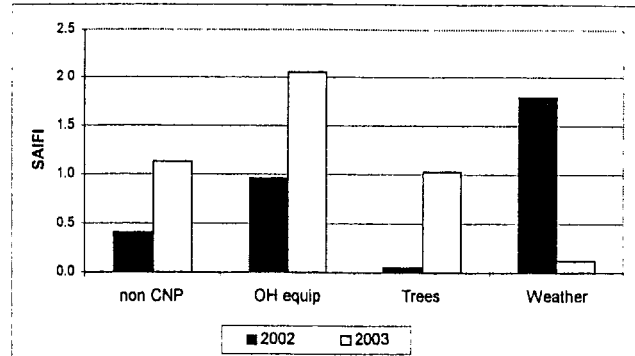
## SAIDI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 59%  | 83%  |
| Fuse                         | 30%  | 16%  |

| SAIDI |        |        |          |
|-------|--------|--------|----------|
|       | 2002   | 2003   | Apr 2004 |
| Value | 277.97 | 368.16 | 8.09     |
| Rank  | 68     | 10     | 702      |

## SAIFI



| % C&F of Total Interruptions |      |      |
|------------------------------|------|------|
|                              | 2002 | 2003 |
| Ckt                          | 83%  | 92%  |
| Fuse                         | 14%  | 8%   |

| SAIFI |      |      |          |
|-------|------|------|----------|
|       | 2002 | 2003 | Apr 2004 |
| Value | 3.47 | 4.49 | 0.05     |
| Rank  | 46   | 16   | 805      |

## Reliability Expenditures

| Year               | Service Restoration | Major Equip | Minor Equip | URD Equip  | Trees      | Poles    | Total      |
|--------------------|---------------------|-------------|-------------|------------|------------|----------|------------|
| 2003               | \$ 34,378           | \$ 4,388    | \$ 19,129   | \$ 106,710 | \$ 112,095 | \$ 5,894 | \$ 282,592 |
| 2004 YTD (5/10/04) | \$ 19,327           | \$ 1,234    | \$ 15,216   | \$ 37,898  | \$ 628     | \$ 945   | \$ 75,249  |

\* Reliability expenditures do not reflect analysis/engineering costs.

### 2003 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection completed 2Q 2003.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Repaired/replaced equipment as part of Service Restoration Process.
- 5) Additional sectionalizing capabilities installed to minimize impact of interruptions.
- 6) Installed/repared lightning arrestors to address lightning as the primary root cause for weather related interruptions.
- 7) Circuit tree trimming completed on 3/18/03.
- 8) Pole maintenance program utilized to identify and replace poles as necessary.

#### Notes:

- The primary sources of non-CNP SAIDI and SAIFI were interruptions caused by outside contractors.

### 2004 Reliability Action Items

- 1) Completed root cause analysis to identify interruption sources.
- 2) Detailed circuit inspection scheduled for June 2004.
- 3) Ongoing evaluation of protective device coordination in response to recurring interruption program.
- 4) Infrared circuit inspection scheduled for 6/28/04.
- 5) Repaired/replaced equipment as part of Service Restoration Process.
- 6) Localized tree trimming evaluated and completed as necessary.
- 7) Pole maintenance program utilized to identify and replace poles as necessary.

#### Notes:

- The source of non-CNP SAIDI and SAIFI was a circuit level interruption caused by a tree trimming contractor.