

ORIGINAL

N.H.P.U.C. Case No. *DE 11-107*

Exhibit No. *#5*

Witness *Parcel 1*

DO NOT REMOVE FROM FILE

REP and VMP Plan FY2012

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Discussion with NH PUC Staff  
February 10, 2011

**nationalgrid**

The power of action.

# Agenda

**VMP and REP FY2011 Status Report**

**Reliability Performance and Key Drivers CY2010**

**Proposed Reliability Enhancement Program FY2012**

**Proposed Vegetation Management Plan FY2012**

**Proposed REP and VMP Budget FY2012**

**Appendix: REP and VMP Program Summary**

# Vegetation Management Plan FY2011 Status Report

Activities	FY2011 Vegetation Plan	FY 2011 Actual Vegetation Expense through 12/31/10
Spot Tree Trimming	\$60,000	\$19,010
Trouble and Restoration Maintenance	\$60,000	\$10,299
Planned Cycle Trimming	\$762,000	\$479,517
Cycle Trimming Police Detail Expenses	\$67,000	\$93,072
Hazard Tree Removal: -Tree Hazard Removal	\$287,500	\$196,785
-Opt Enhanced Tree Removal	\$100,000	\$13,222
Interim Trimming	\$58,000	-
Tree Planting	\$500	\$1,137
Other Police Detail Expenses	\$23,000	\$10,899
<b>Total</b>	<b>\$1,418,000</b>	<b>\$823,941</b>

On Track

Fairpoint Credits	Invoiced	Received
Work Performed in FY10 Credited in FY11	<b>\$644,098</b>	<b>\$644,098</b>

# Vegetation Management Plan FY2011 Status Report (Continued)

<u>Activities</u>	<u>FY2011 Program Details</u>	<u>FY2011 Program Accomplishments through 12/31/10</u>
Spot Tree Trimming	As needed	Ongoing as needed
Trouble and Restoration Maintenance	As needed	Ongoing as needed
Planned Cycle Trimming	175.75 miles	133.00 miles (certified complete)
Cycle Trimming Police Detail Expenses	As needed	Ongoing as needed
Hazard Tree Removal: -Tree Hazard Removal - Opt Enhanced Tree Removal	298 tree removals (estimated)  150 tree removals or 5 miles (estimated)	108 trees removed, projecting 94 to complete  0 removals completed so far but projecting 92 removals along t five+ miles of feeder
Interim Trimming	As needed	Ongoing as needed
Tree Planting	As needed	Ongoing as needed
Subtransmission Right of Way Clearing	50.00 Acres	50.00 acres completed
Other Police Detail Expenses	As needed	Ongoing as needed
Spot Tree Trimming	As needed	Ongoing as needed

# Reliability Enhancement Plan FY2011 Status Report

<b>Projects</b>	<b>FY2011 Goal</b>	<b>FY 2011 Actual To Date</b>	<b>FY2011 Capital Investment Budget</b>	<b>FY 2011 Actual Capital Spend through 12/31/10</b>
Feeder Hardening	25	23	\$283,000	\$92,509
<b>Asset Replacement</b>				
- Reclosers	4	2	\$206,000	\$112,856
- Cutouts	400	322*	\$164,000	\$131,971
<b>Total</b>			<b>\$653,000</b>	<b>\$337,336</b>

On Track

\*estimate

- 2 More Reclosers to be installed by end of March (1L1 Region)
- Spending for FH under budget; extra \$ will be used to remove more cutouts.
- Total Spending projected to be on target

# Reliability Enhancement Plan Status Report

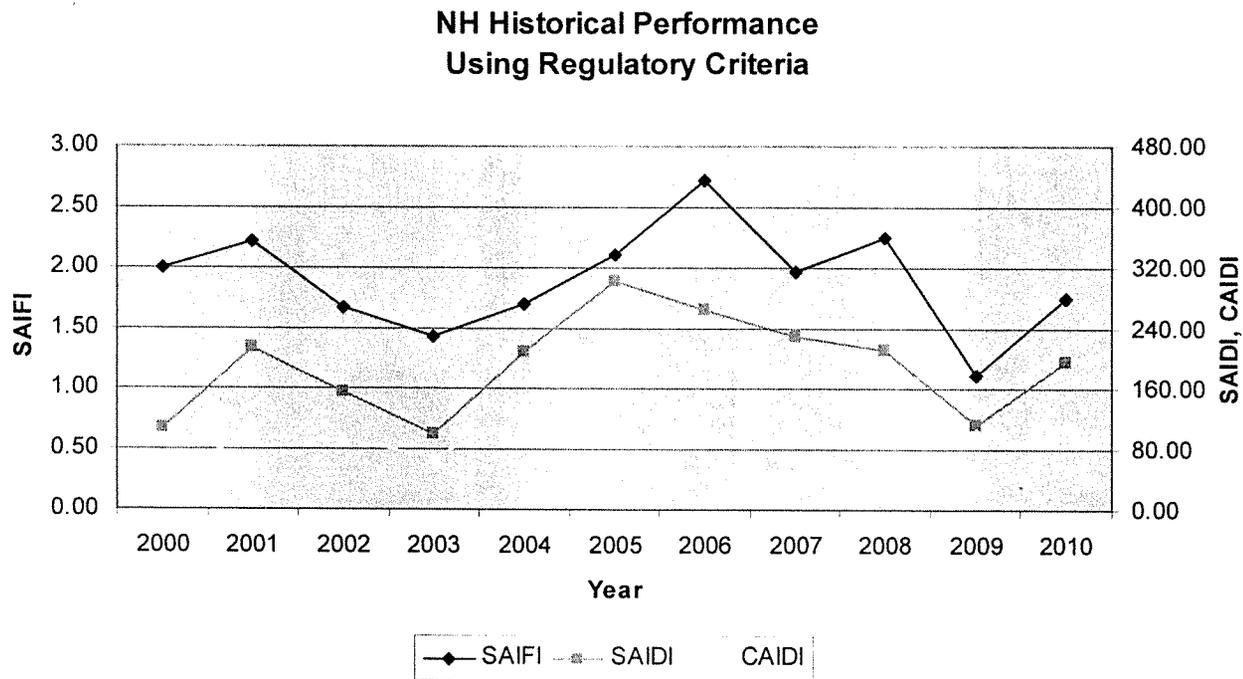
*(continued)*

Activities	FY2011 O&M Investment Proposal	FY 2011 Actual O&M Investment 12/31/10
Inspection and Maintenance	\$20,000	\$7,000
O&M related to Capital Expenditures	\$114,000	\$16,900
<b>Total</b>	\$134,000	\$23,600

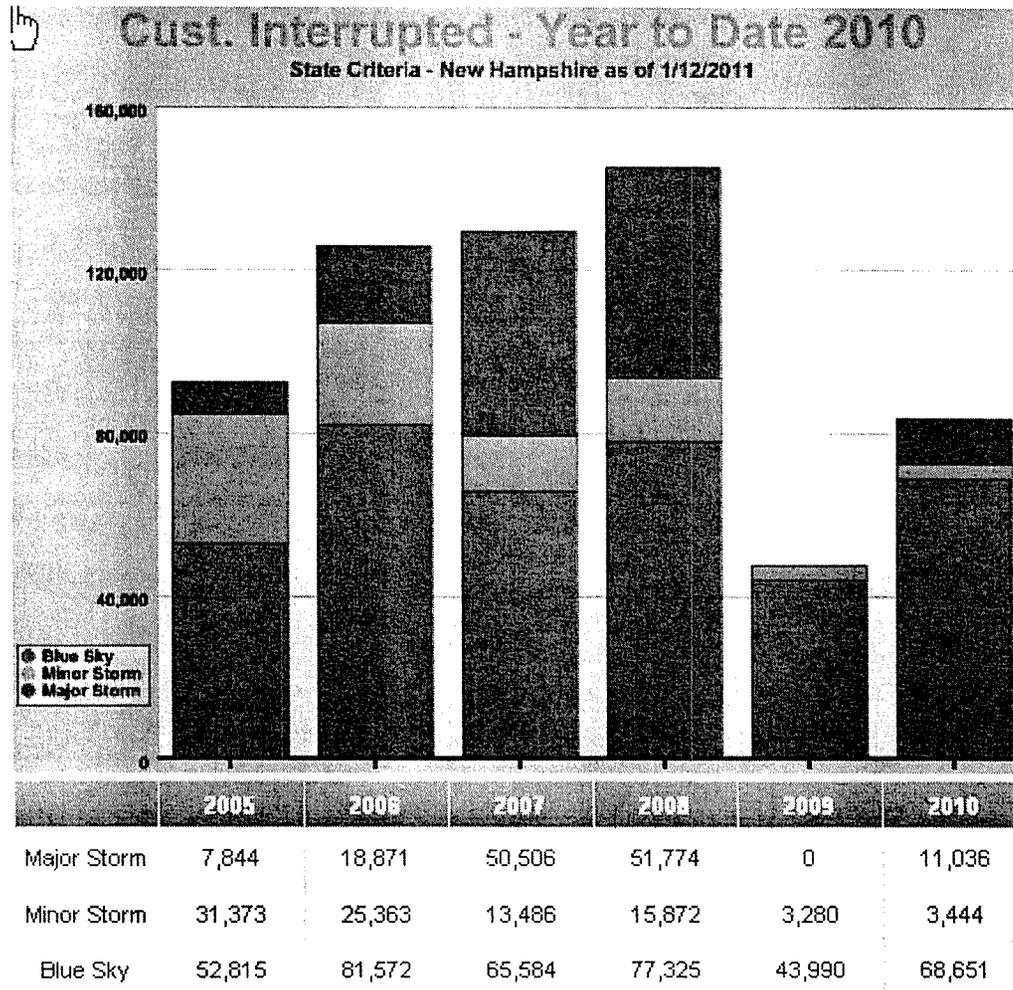
\$11,000 expected  
FY2011

Forecast is under  
budget

# Reliability Improvement Trend Continues



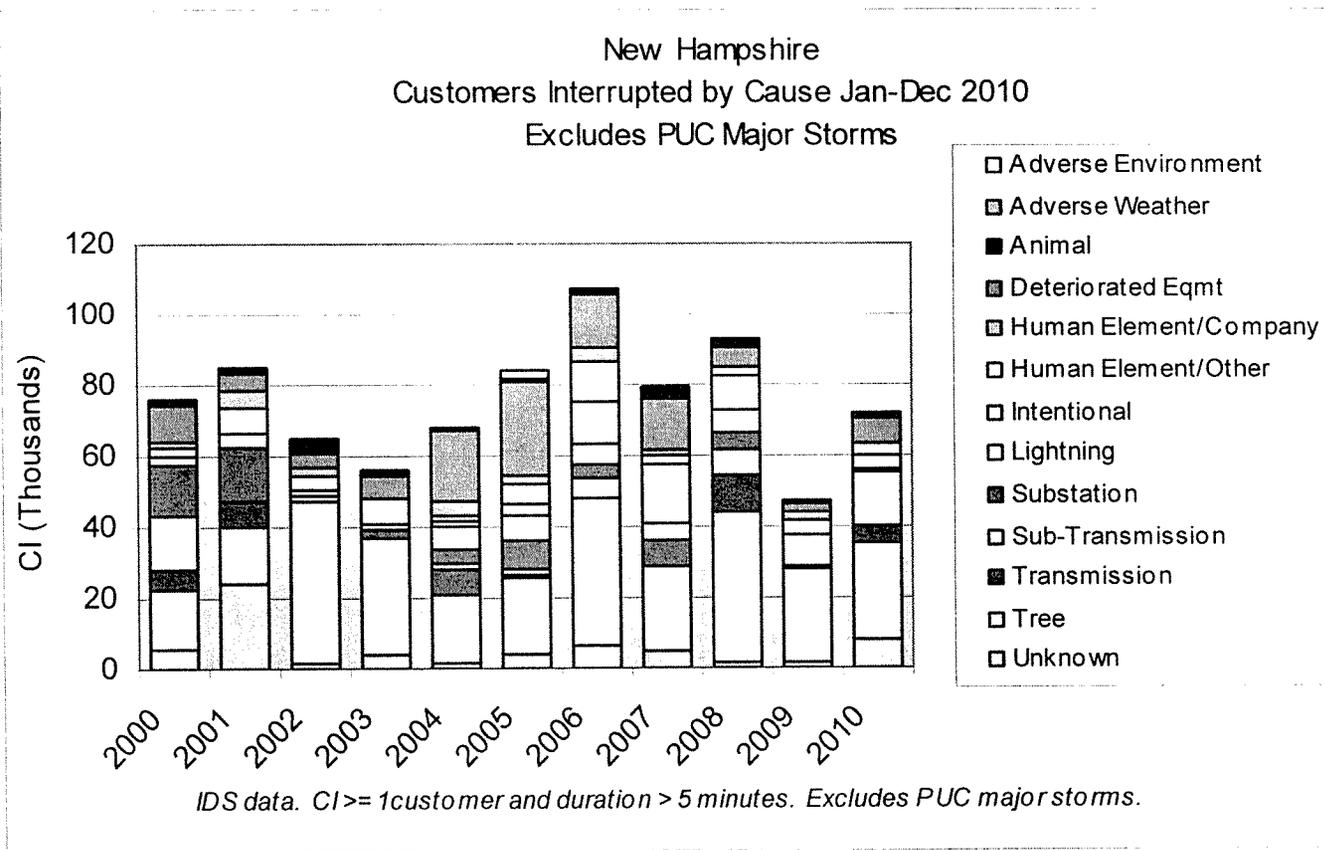
# Weather Analysis of Customer Interruptions



## Key Performance Drivers in 2010

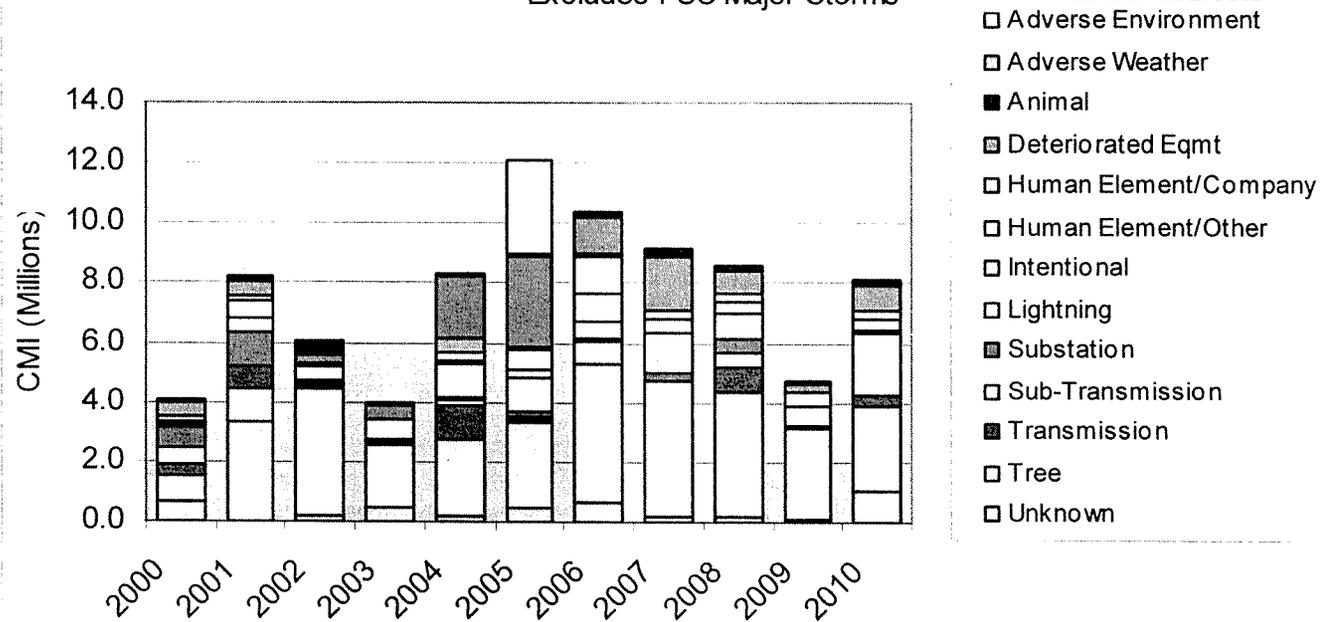
- Up-turn in reliability metrics in 2010 mainly due to
  - Problems on 1L1 Feeder –insulation failures (3 events)
  - Geese flying into 23kV line supplying Spicket River (1 event)
- These Issues partially offset good performance due to
  - Feeder hardening program
  - Installation of new reclosers & communication upgrades on existing reclosers
  - Re-conductoring feeders to mitigate tree related outages
  - Tree trimming & hazard tree removal reduces vulnerability of network assets
  - Good weather
  - Many operational improvements including Infrared feeder patrols, trouble-shooter shift analysis, fault indicator analysis/installation, abnormal system condition review, side tap analysis for increased sectionalizing, tracking and monitoring of switching delays during weekly meetings, fast feeder patrols to identify mainline issues

# Cause of Customer Interruptions



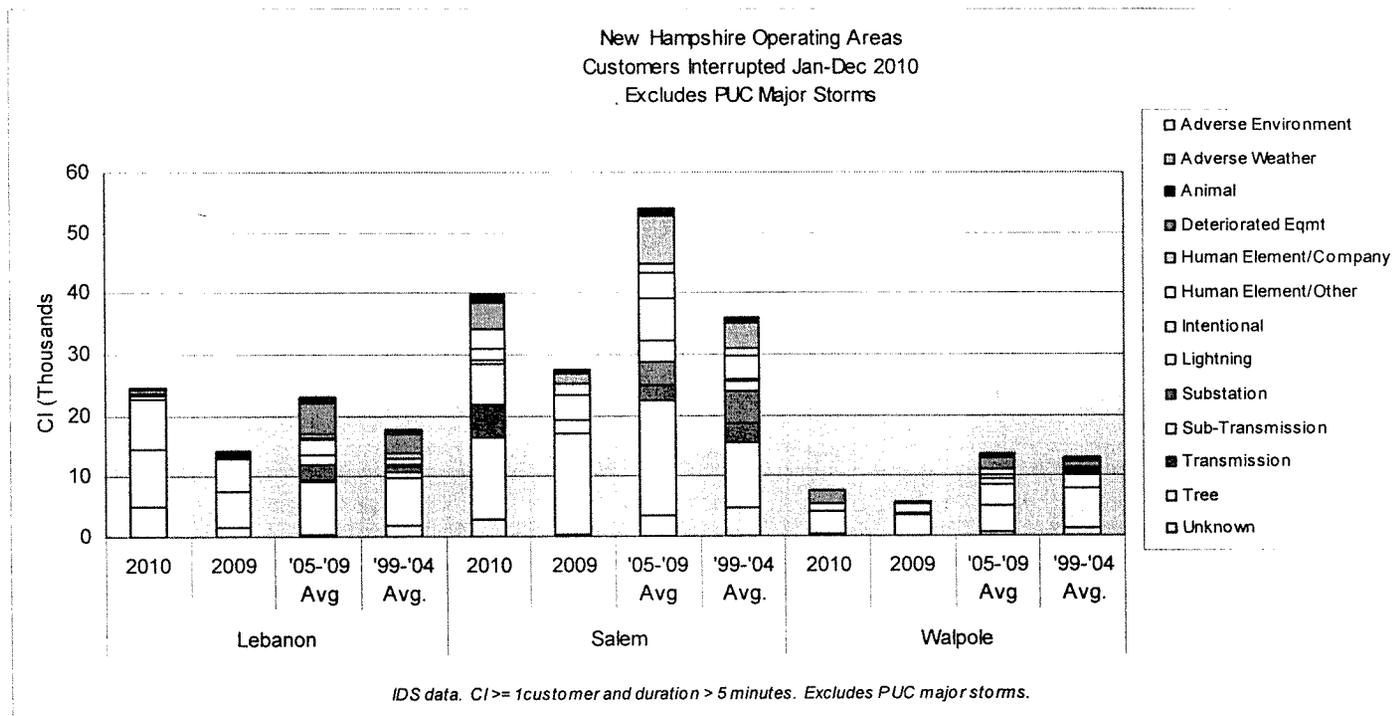
# Customer Minutes Interrupted by Cause

New Hampshire  
 Customers Interrupted by Cause Jan-Dec 2010  
 Excludes PUC Major Storms

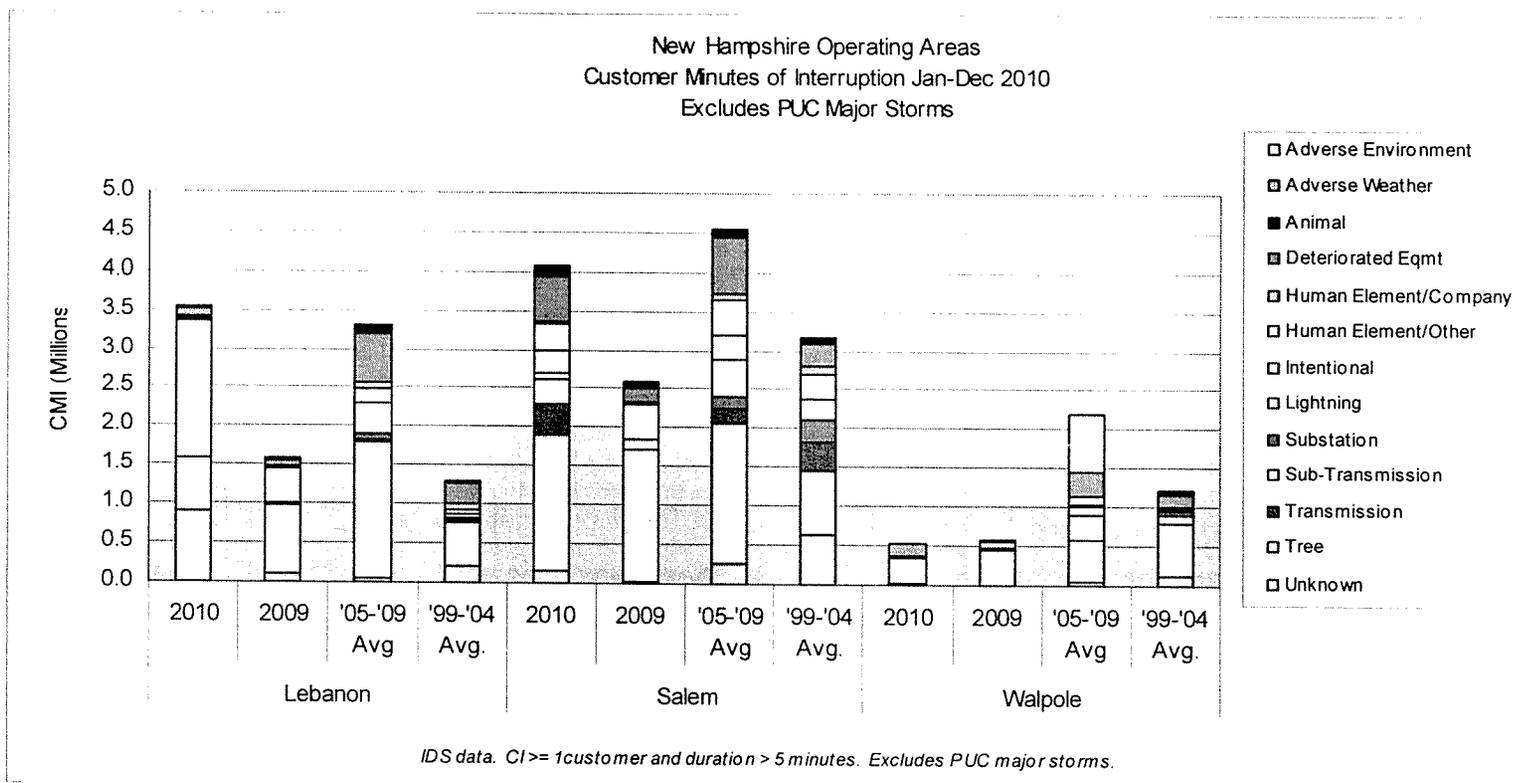


IDS data. CI >= 1 customer and duration > 5 minutes. Excludes PUC major storms.

# Cause of Customer Interruptions by Region



# Cause of Customer Interruptions by Region



## Proposed REP Capital Investments FY2012

<u>Projects</u>	<u>Goal</u>	<u>FY 2012 Potential Investments</u>
<b>Feeder Hardening</b>	57 miles Vilas Bridge 12L1	\$360,000
<b>Reclosers</b>	3 reclosers  10L4 Salem 13L2 Salem 12L1 Walpole	\$165,000
<b>Asset Replacement</b>		
- Cutouts: Replacing potted porcelain cutouts	400 cutouts	\$164,000
<b>Total</b>		<b>\$689,000</b>

# Proposed FY2012 Vegetation Management Program



<u>Activities</u>	<u>FY 2012 Program Details</u>
Spot Tree Trimming	As needed
Trouble and Restoration Maintenance	As needed
Planned Cycle Trimming	159.24 miles
Cycle Trimming Police Detail Expenses	As needed
Hazard Tree Removal: -Tree Hazard Removal	186 tree removals (estimated)
-Optional Enhanced Hazard Removal	114 tree removals (estimated)
Interim Trimming	As needed
Tree Planting	As needed
Subtransmission Right of Way Clearing	13.70 miles
Other Police Detail Expenses	As needed

## Proposed O&M REP and VMP Budget FY2012

<u>Proposed VMP Activities</u>	<u>FY 2012 Potential Expenses</u>
Spot Tree Trimming	\$62,000
Trouble and Restoration Maintenance	\$62,000
Planned Cycle Trimming	\$785,000
Cycle Trimming Police Detail Expenses	\$70,000
Hazard Tree Removal: -Tree Hazard Removal -Optional Enhanced	\$297,000 \$100,000
Interim Trimming	\$60,000
Tree Planting	\$500
Other Police Detail Expenses	\$22,500
<b>Total</b>	<b>\$1,459,000</b>

<b>VMP Activities</b>	<b>\$1,459,000</b>
<b>+ REP O&amp;M</b>	<b>\$97,000</b>
	<b>\$1,556,000</b>

<u>REP O&amp;M Activities</u>	<u>FY 2012 Potential Expenses</u>
Inspection and Maintenance	\$11,000
O&M related to Capital Expenditures	\$86,000
<b>Total</b>	<b>\$97,000</b>

## Appendix: REP and VMP Program Summary

<b>Program</b>	<b>FY08</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>
Feeder Hardening (miles)	79	27	64	25	57
Distribution Cycle Trimming (miles)	180	176	176	176	159
Enhanced Hazard Tree Mitigation (miles)	104	92	78	78	38
Reclosers	9	3	6	4	3
Cutouts	1,283	806	310	400	400