

DIRECT TESTIMONY
OF
DONALD L. DUBOIS

1 Q. Please state your name and business address.

2 A. My name is Donald L. DuBois, Jr. and my business address is 284 South
3 Avenue, Poughkeepsie, NY 12601.

4
5 Q. By whom are you employed and in what capacity?

6 A. I am employed by Central Hudson Gas & Electric Corporation, as the
7 Manager of Electric T & D and Quality/Productivity Initiatives.

8
9 Q. What are your responsibilities in your current position?

10 A. I have several responsibilities related to the electric transmission and
11 distribution system. I have responsibility for Electric Transmission &
12 Distribution Maintenance, Construction and Operations. I have overall
13 responsibility for matters pertaining to vegetation management activities at
14 Central Hudson including electric transmission and distribution, and gas
15 transmission. I have overall responsibility for matters pertaining to stray
16 voltage testing activities at Central Hudson. I am also responsible for
17 implementing the corporate Quality and Productivity Initiative.

18
19 Q. Please summarize your educational background and professional
20 experience.

21 A. I received a Bachelor of Science Degree in Mechanical Engineering from
22 Union College in 1986. Since 1986, I have been continuously employed
23 by Central Hudson, with assignments in its Production, Mechanical

1 Engineering, Gas & Mechanical Engineering, Fuels Resources, Operation
2 Services, and Customer Services Groups. Prior to my current assignment
3 I served as the Manager of System Construction.

4

5 Q. Have you previously testified before this Commission?

6 A. Yes, I testified in Central Hudson Cases 00-E-1273 and 00-G-1274, as the
7 Director of Fuels Resources and in Central Hudson Cases 05-E-0934 and
8 05-G-0935, as the Manager of System Construction.

9

10 Q. What is the purpose of your testimony in this proceeding?

11 A. My testimony will address the actual expenditures for the twelve months
12 ended March 31, 2008, and the projected expenditures for the rate year
13 for Central Hudson's 1) Electric Transmission Right of Way ("ROW")
14 Management Program, 2) Electric Distribution Line Clearance Program,
15 and 3) Stray Voltage Testing Program.

16

17 Electric Transmission ROW Management Program

18 Q. Have you developed the actual costs of Central Hudson's Electric
19 Transmission ROW management in the twelve-month period ending
20 March 31, 2008?

21 A. Yes. The costs of the Electric ROW Management Plan for the period
22 ending March 31, 2008 are summarized on Exhibit DLD-1.

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1 Q. Please describe the scope of Electric Transmission ROW Management
2 activity for the future rate year that is reflected in Exhibit DLD-1.

3 A. For the July 2009-June 2010 time period, the forecast level of effort in my
4 Exhibit DLD-1 is based on Central Hudson's Long Range Transmission
5 ROW Management Plan, as revised and updated in 2007. This Plan calls
6 for maintenance of a total of 587 miles and 9,485 acres of electric
7 transmission ROW on a five-year cycle (equating to approximately 118
8 miles and 1,897 acres per year). This "Plan" has been submitted to the
9 PSC Staff for review and was approved by letter dated January 7, 2008
10 from the Secretary (see Exhibit DLD-2).

11 Q. Please describe the elements of the Company's Electric Transmission
12 ROW Management Plan?

13 A. As shown on Exhibit DLD-1, the Transmission ROW Management Plan
14 includes cost categories for Routine ROW Maintenance, Danger Tree
15 Removal, Hot Spot Trimming, ROW Edge Reclamation, Legal and
16 Environmental, and Mowing and Access Roads.

17 Q. How did you develop the rate year unit prices for those cost categories?

18 A. The Routine Electric Transmission ROW Maintenance Program includes a
19 number of cost components that need to be discussed independently to
20 understand the proposed rate year expenditures. Most of these cost
21 components are being dictated and impacted by the PSC Order Requiring
22 Enhanced Transmission Right – of- Way Management Practices by
23 Electric Utilities in Case 04-E-0822 (Transmission ROW Order). The need

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1 to resume side trimming operations following the completion of the ROW
2 Edge Reclamation initiative will significantly increase the annual
3 expenditures associated with Routine Electric Transmission ROW
4 Maintenance. It is estimated that 10% of the ROW on an annual basis
5 can be considered clear and that the remainder will require side trimming.
6 The increased customer contact and complaint resolution we have
7 experienced, including in relation to chipping or total removal of debris, as
8 well as providing limited plantings, has significantly increased the unit cost
9 for this line item but are required to obtain the desired clearances in
10 accordance with the Transmission ROW Order.

11 The projected cost to complete the Routine Electric Transmission ROW
12 Maintenance, which includes maintaining the ROW floor, completing the
13 required side trimming, and applying the appropriate herbicide to 20% of
14 the total ROW miles and acres each year (5 year cycle) will require annual
15 expenditures of \$1,083,327 for rate year ending June 30, 2010 based on
16 recent bids to complete this work.

17 The Electric Transmission ROW Edge Encroachment Reclamation plan
18 will be completed by June 2009 in conjunction with our five year cycle and
19 will require no funding in the rate year.

20 With the completion of the Edge Reclamation work, the scope of danger
21 tree removal in the future will be greater than in the past, as the danger
22 trees remaining will be predominantly those located outside of the ROW.
23 The cost associated with removal of danger trees from private property

1 outside of existing rights of way, where Central Hudson must negotiate
2 permission to remove the identified trees, will result in substantially higher
3 costs for the Danger Tree Removal category than was expended during
4 the 12 month period ending March 31, 2008.

5 Hot Spot trimming expenditures were developed by applying the yearly
6 escalator to the 3-year average of actual expenditures for 2005, 2006, and
7 2007.

8 The Mowing and Access Road category reflects resumption of activities
9 not funded under the current rate plan.

10 Q. How did you determine the costs for the Legal and Environmental
11 category?

12 A. I assumed that these costs would be about one third higher than the
13 actual costs for the twelve months ending March 31, 2008. The basis for
14 this was my experience with our current clearing programs and my belief
15 that danger tree removals from outside of the ROW and acquiring
16 additional ROW widths, as mandated by the Commission's Transmission
17 ROW Order, will be significantly more expensive than the average costs in
18 past clearing activities.

19 Additional ROW width acquisition, and the danger tree removals
20 mandated by the Commission involve the potential for impacts on
21 residential properties along our ROWs, and resolving homeowner
22 concerns is generally time consuming and expensive. Our experience
23 with the reconstruction of the P & MK transmission lines, and with the

1 construction of the new New Baltimore to Westerlo line and proposed
2 reconstruction of the Walden to Maybrook line, support this belief.

3 Distribution Line Clearance Program

4
5 Q. Have you undertaken a review of the Company's Distribution Line
6 Clearance Program since your last testimony before this Commission and
7 if so why?

8 A. Central Hudson has retained an independent consulting firm to analyze
9 distribution line clearance practices from an electric reliability perspective.
10 Based on the review, a number of changes in the scope of the Distribution
11 Line Clearance Program are being proposed.

12 It was recommended that Central Hudson begin to focus on establishing
13 greater clearances to include reduction of the overhang and danger tree
14 removal (Modified Enhanced Trimming) on single-phase as well as three-
15 phase lines. The review of Central Hudson's tree related outage data
16 determined that most outages were being caused by tree or limb failure
17 not growth contact. It was also confirmed that continuation of the
18 Enhanced Line Clearance Program on the worst performing (prioritized by
19 tree-caused customer interruptions) three-phase lines to include
20 expanding the hazard/danger tree removal initiative on a system basis
21 would improve reliability.

22 Central Hudson began modified enhanced trimming on our distribution
23 system near the end of the first quarter of 2007. The modified enhanced
24 trimming takes approximately twenty-five percent longer to complete than

1 routine trimming due to the work associated with providing increased side
2 clearances and removal of most of the overhang. It is anticipated that the
3 reliability improvement (non-storm tree related outage performance) over
4 time will justify the increased cost per mile associated with converting from
5 routine to modified enhanced trimming.

6 Based on the consultant's conclusions that only a small percentage of
7 Central Hudson's tree related outages are caused by growth contacts, the
8 decision was made to extend the trimming cycle from 3 years to 4 years in
9 order to fully offset the increased costs associated with performing
10 modified enhanced trimming.

11 The consultant also concluded that performing Enhanced Line Clearance
12 on three-phase lines could reduce tree-related interruptions by up to forty
13 percent compared to standard three-phase trimming. It was
14 recommended that Enhanced Trimming be conducted on an additional
15 760 miles of three-phase lines. Currently Central Hudson is completing
16 100 miles of enhanced line clearance each rate year of the current 3-year
17 rate plan. The new rate year in this case reflects an increased budget
18 allocation for enhanced line clearance to facilitate completing 150 miles in
19 the rate year beginning in July of 2009.

20
21 **Q.** What are the components of the Distribution Line Clearance Program
22 shown in your exhibit?

23 **A.** As shown on Exhibit DLD-3, I have broken the Distribution Line Clearance
24 Program costs down into six categories: On-Road Trimming, Off-Road

1 Trimming, Distribution Trimming Trouble Orders, Danger Trees, Enhanced
2 Line Clearance and Flagging.

3
4 Q. Please describe those components.

5 A. The on- and off-road trimming is sometimes referred to as the "routine"
6 portions of the program, and the Trouble Orders and Danger Tree
7 elements as "off-cycle" portions of the program. The routine portions are
8 conducted on a four -year cycle basis, which equates to 1,363 (5,452/4)
9 miles of on-road and 426 (1,703/4) miles of off-road clearing per year.

10 The off-cycle portions depend on the actual number of Trouble Orders
11 created, and Danger Trees identified during the year. Trouble Orders
12 identify tree related conditions requiring off-cycle attention and typically
13 follow a storm event. Localized wind events or lightning strikes can
14 damage tree limbs that are or will make contact with our electrical
15 facilities. These would be examples of trouble order conditions.

16 The Enhanced Line Clearance program targets completing a more
17 aggressive ground to sky line clearance (including tree removals and
18 complete over hang removal) on both the on-road and off-road three-
19 phase mainline sections of the worst performing circuits from a tree-
20 related outage perspective. Continued funding of the enhanced line
21 clearance program is required to continue improving the reliability on the
22 worst performing circuits from a tree-related outage perspective.

23 Line Clearance Flagging costs are accounted for independently of the on-

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1 road line clearance, enhanced line clearance, danger tree removal, and
2 trouble order costs, but are directly related to performing these work
3 functions. Appropriate signage and flagging are required to meet local
4 town, county, state and federal guidelines for work zone safety when
5 performing work to include trimming operations along or across any
6 roadway. Work zone safety has become a paramount concern and
7 providing trained and qualified flagging personnel is an integral part of
8 performing distribution line clearance activities along state, county, and
9 town roads. The rate year cost levels for these activities are based on
10 current market conditions, based on the assumption that the work would
11 be performed, and staffed as needed, through temporary employment with
12 compensation paid on an hourly basis.

13 Q. What were the actual costs for the distribution line clearance program
14 during the twelve-month period ending March 31, 2008?

15 A. Actual costs were \$7,623,509, as shown on Exhibit DLD-3. Please note
16 that the costs for the twelve months ending March 31, 2008 include the
17 costs of the Enhanced Line Clearance Program for this period.

18 Q. Were the total miles cleared during the twelve-month period ending March
19 31, 2008 in the routine (on- and off-road) categories representative of the
20 number of miles that you will clear during the rate year and subsequent
21 periods?

22 A. We cleared somewhat more miles in the off-road portion, and somewhat
23 less miles in the on-road portion, than will be cleared annually during the

1 rate year and subsequent periods. As a result, I made a normalizing
2 adjustment to the volumes of miles in those two categories before
3 applying the unit prices, to adjust them to the 1,363 miles of on-road and
4 426 miles of off-road clearing per year that will be done annually in the
5 future. I then applied the actual unit costs per mile in each of those two
6 categories, and escalated the products at 3.8% annually to the future rate
7 year period.

8 Q. Please explain how you developed forecasts of the costs of the other
9 components of the Distribution Clearance Program?

10 A. The distribution danger tree program targets the removal of damaged
11 trees typically outside the normal zone of trimming which are posing an
12 imminent threat to our electrical facilities. Central Hudson has worked
13 with municipalities to remove danger trees that benefit the utility as well as
14 the community with cost sharing commensurate with the benefit received.
15 The Asian Longhorned Beetles, Hemlock Woolly Adelgids, and Emerald
16 Ash Borers coupled with the resurgence of the Gypsy Moths have resulted
17 in the need for a more aggressive danger tree program to respond to
18 premature tree devastation. It is estimated that annual expenditures of
19 \$793,292 are required to stay current with danger tree removals. I then
20 escalated this cost at 3.8% annually to the future time period.
21 Trouble Order expenditures were developed based on the budget
22 developed for calendar year 2008 and projected budget for 2009 which
23 was then inflated by 3.8% annually.

1 Flagging costs are forecast by the number of crews assigned to the On-
2 road, Danger Tree, Trouble Order, and Enhanced Line Clearance work
3 functions coupled with the forecast hourly rate for flagging personnel
4 based on the anticipated expenditures for these work functions. I then
5 inflated these costs by 3.8% annually through 2010, and then spread the
6 costs back into the rate year.

7 Enhanced Line Clearance funding represents significantly more funding to
8 reflect the increase in miles from the original approval of 100 in the
9 Commission Case 00-E-1273 to 150 miles per rate year. My Exhibit DLD-
10 3 includes the dollar amounts related to that change in scope.

11
12 Stray Voltage Testing Program

13 Q. Please describe generally what you will address concerning stray voltage?

14 A. I will discuss Central Hudson's implementation of the annual stray voltage
15 testing program which was required by the Commission in its Order
16 Instituting Safety Standards (issued and effective January 5, 2005). I will
17 describe the magnitude of Central Hudson's stray voltage program, what
18 facilities have been tested, and the results of those tests. Additionally,
19 and I will present the projected expenditures for rate year and describe the
20 cost savings that have been implemented within the stray voltage
21 program.

22 Q. Please describe the magnitude of the stray voltage testing program at
23 Central Hudson.

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1 A. The Commission's Order requires that stray voltage testing be performed
2 on all electric facilities that are capable of conducting electricity and are
3 publicly accessible. The testing is required on distribution and
4 transmission poles that have a down ground, guy wire or metal riser pipe,
5 pad-mounted transformers and switchgear, underground equipment
6 including manhole and pull-box covers, substation fences, metal streetlight
7 poles, whether they are Company-owned or not, and metal traffic signal
8 poles and devices. With regard to the number of facilities that require
9 testing in the Central Hudson service territory, the following table
10 summarizes the approximate number of pieces of equipment that are part
11 of the annual testing program:

12	Distribution Poles	205,870
13	Transmission Structures	8,598
14	Padmounted Transformers/Switchgear	12,508
15	Manholes/ Pullboxes	1,220
16	Substation Fences	107
17	Company Owned Metal Streetlight Poles	185
18	Municipal Owned Metal Streetlight Poles	5,279
19	Traffic Signal Poles/ Devices	811

20 Q. How is the Company executing this annual testing program?

21 A. Central Hudson manages a group of contractors to meet the annual
22 testing requirements. Since 2007, the stray voltage testing program has
23 operated on a designated twelve-month term, beginning on December 1,
and ending November 30. Each facility is tested once during this

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1 timeframe. The 2008 program began December 1, 2007 and is currently
2 in process.

3 Contractors are currently performing all phases of testing which include
4 distribution poles, transmission poles, and pad-mounted equipment,
5 streetlights and traffic signal poles, manhole/pullboxes, and substation
6 fences. Additionally, a contractor is performing the data management
7 function, which includes the uploading and downloading of test records
8 from the field data collection devices, addressing issues related to the field
9 data collection hardware and software and reporting on test results and
10 progress. A separate independent contractor is responsible for
11 implementing the Quality Assurance program that is required by the
12 Order.

13 Q. Could you provide a summary of the results of the stray voltage testing
14 program since 2005?

15 A. The results are summarized in the table:
16

	Field Visits or Tests	8 Volts or Greater
Distribution Poles	420,189	2
Transmission Structures	17,160	2
Padmounted Transformers/Switchgear	25,177	0
Manholes/ Pullboxes	3,703	0
Substation Fences	326	0
Company Owned Metal Streetlight Poles	555	1
Municipal Owned Metal Streetlight Poles	15,904	9

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Traffic Signal Poles	2472	0
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Q. What is your estimate of the rate year costs of the stray voltage testing program?

A. I estimate that the rate year costs for the program described above will be \$2,030,000, which compares favorably with the existing rate plan rate year 3 rate allowance of \$2.4 million. The reduction in costs is due to implementation of cost controls and productivity improvements. In 2006, Central Hudson re-bid the stray voltage testing program and received long term pricing (5 year term) which stabilized costs. In 2007, the Stray Voltage Testing Program moved away from the previous circuit-based data collection methodology to a geographical "grid" based method. This has decreased the amount of overlapping with multiple field testers, since now each field tester is responsible for a specific geographical area. Additionally, technology has also helped increase efficiencies. Field testers now utilize a PDA (hand held data collection unit) that has a built in GPS based interactive map showing the individual field tester's real time location as well as each facility to be tested within their geographic "grid." Prior to this development, field testers carried printed maps and had to search their PDA for the specific facility based upon their unique identification number.

1 Q. Are you aware of any current Commission initiatives that could
2 significantly impact your estimate of the costs associated with the stray
3 voltage testing program.

4 A. The recent "Notice Soliciting Comments" issued July 8, 2008 regarding
5 proposed revisions to the Commission's Electric Safety Standards in Case
6 04-M-0159 has raised concern relative to the costs associated with stray
7 voltage testing, system inspections, and mitigation and repair procedures.

8 Q. Can you quantify the potential cost impact of adopting the proposed
9 revisions to the standards?

10 A. There is not sufficient detail provided in the "Notice" to determine with any
11 degree of certainty what the incremental cost would be to comply with the
12 proposed revisions to the standards. For example, the HD Detector
13 approved for use by PSC Staff can only detect the presence of stray
14 voltage at 4.5 volts or greater. To measure stray voltage down to the
15 proposed 1 volt level would require the use of a voltmeter at every
16 location. The additional requirement to test for stray voltage on all metallic
17 structures within 30 feet of an electric facility where stray voltage was
18 measured will significantly change the current testing protocols. These
19 subtle changes have the potential to significantly increase the cost of
20 performing the stray voltage testing. The proposed changes to the
21 inspection and repair process regarding the tracking and prioritizing of
22 deficiencies and required timeframes to affect permanent repairs are not
23 realistic in light of the estimating and design work, material procurement

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1 lead times, and regulatory requirements regarding obtaining the necessary
2 highway work permits. Conditions requiring immediate attention are made
3 safe through either temporary or permanent repairs. Damage to our
4 facilities by third parties can be repaired temporarily, but permanent
5 repairs requiring pole replacement often times require consultation with
6 the state or county highway departments as well as the other attachers to
7 ensure that the new pole placement meets setback requirements as well
8 as design considerations of telephone and cable to avoid creating double
9 wood conditions.

10 Q. Has your work with the electric system disclosed a need for additional
11 work efforts?

12 A. Yes. Based on my experience with the electric system, I recommend
13 the funding of four new or expanded programs, having a total rate year
14 expense level of \$700,000. The programs are changes to electric
15 transmission survey methods, fund inspection and repairs of transmission
16 towers, additional Osmose pole treatment, and a transmission facility
17 painting program. These items are summarized on Exhibit DLD-4. The
18 need for these additional initiatives was identified during the more
19 comprehensive transmission inspections we recently have been
20 performing. We have classified the repairs and are now proposing to
21 address the severity 4 and 5 conditions. Based on the inspections
22 completed in 2007 and 2008, the \$700,000 is my estimate of the

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1 additional funding needed to repair the incremental problems being
2 identified.

3 Q. Does this conclude your pre-filed direct testimony?

4 A. Yes.