DIRECT TESTIMONY
OF
PAUL E. HAERING

Q. Please state your name and business address for the record.

A. My name is Paul E. Haering. I am employed by Central Hudson Gas & Electric Corporation ("Central Hudson"), and my business address is 284 South Avenue, Poughkeepsie, New York 12601.

Q. What is your educational background?

A. I graduated from Manhattan College in 1986 with a Bachelor of Engineering in Electrical Engineering degree. In 1992, I received a Masters of Electrical Engineering degree from Polytechnic University. In 2007, I received a Masters in Business Administration from Rensselaer Polytechnic Institute

Q. In what capacity are you employed at Central Hudson?

A. I am Vice President of Engineering and Environmental Services. In that capacity I am responsible for the engineering planning and designs for Central Hudson's gas and electric transmission and distribution systems. I am also responsible for the construction, operation, and maintenance of our electrical substations. In addition I have responsibility for our Environmental Affairs and Special Services organizations.

Q. Please summarize your professional experience.

A. I joined Central Hudson in 1986 as a Junior Engineer in the Substation Design Section. In 1989 I was transferred to work as a staff engineer in the Operations Services Division, which has responsibility for the operation,

maintenance, and construction of the Company's substation facilities. In 1994 I was promoted to the position of Operations Supervisor in the Operations Services Division. In 2000, I was transferred to the position of Engineer in the Electric System Protection Section. In 2001, I became Section Engineer for the Distribution Engineering Section. In 2003, I was promoted to the position of Manager of Electric Transmission and Distribution. In 2004, I was promoted to the position of Manger of Electric Engineering Services. In May of 2007 I was named the Assistant Vice President of Engineering and Environmental Services and in December 2007 named to my current position.

Q. Have you previously testified before the Commission?

A. Yes. I submitted testimony in cases 05-G-0934 and 05-G-0935.

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

A. My testimony presents the Company's forecast of capital expenditures for the period July 1, 2009 through June 30, 2010. These forecasts are presented in Exhibit __ (PEH-1), entitled " July 2009 – June 2010 Capital Forecast". In addition I will discuss expense related expenditures linked to the Company's electric sag mitigation program and enhanced gas leak repair program.

Q. Was Exhibit __ (PEH-1) prepared by you or under your supervision and

direction?

A. Yes.

Q. What is the Capital Forecast set forth in Exhibit___(PEH-1) based on?

A. The Capital Forecast represents the rate year portion of a Five-Year Capital Plan. The Five-Year Capital Plan I have relied upon was developed by me or under my supervision and direction for purposes as part of our standard annual capital planning process. This is the same plan that will be presented to the Company's Board of Directors this fall as part of the approval process of the Company's Business Plan. The entire Five-Year Capital Plan is summarized in Exhibit _____ (PEH-2). .

Q. Please explain what is shown on Exhibit __ (PEH-2), Schedule A, entitled "Capital Program - Total".

A. Schedule A is a summary of the Capital Plan for the period 2009 through 2013 and includes the Rate Years ending June 30, 2010, June 30, 2011, and June 30, 2012. This schedule includes annual totals for each of the three major categories: Electric, Gas and Common. Additional detailed information for each of these three major categories is included in Schedules B through D, respectively. The indicated figures include allowance for funds used during construction (AFUDC).

Q. Referring to Exhibit __ (PEH-2), Schedule B, what is included in the "Production" category of that schedule?

A. The "Production" category includes construction expenditures for the Central Hudson hydroelectric generating facilities at Sturgeon Pool, Dashville, and High Falls, and the combustion turbine plants at Coxsackie and South Cairo. Expenditures in 2009 of $899,000, 2010 of $3,014,000, and 2012 of $750,000 are projected for the installation of a 90% drain, rubber bladder flashboards, and an intake rack replacement for the Sturgeon Pool dam. The 90% drain is a requirement of the DEC and the completion of the other projects will address safety, infrastructure, and operational efficiency issues. Expenditures in 2012 of $3,325,000 and 2013 of $3,150,000 are projected for the refurbishment of the combustion turbine plants at Coxsackie and South Cairo. The completion of these enhancements is required to maintain the reliability of service to customers in the Northwest portion of our territory.

Q. Are expenditures included for new transmission lines or major rebuilds of existing lines in the "Transmission" category of Schedule B of Exhibit __ (PEH-2)?

A. Yes. There is one new line and the rebuilding of several existing lines that are projected to have construction initiated or to have come into service during this period.

The construction of a new (3.5 miles) 115 kV line between the East Fishkill and Wiccopee Substations is projected to require expenditures of $970,000

in 2008, $853,000 in 2009, and $900,000 in 2010. This project is currently in the permitting stage. This new line will be built on existing rights of way. The completion of this transmission line will provide a third input into the Southern Dutchess Area to address a post-contingency load serving capability issue. Several of the major reconductoring / rebuild projects include the “WM” line rebuild, and the “WH-1”, “WH-2”, “A”, and “C” reconductoring projects. The planning and permitting work on the "WM" rebuild project started in 2006. This project is for the rebuild of an 11.5 mile 69 kV Line in Orange County. The project is being driven by a combination of infrastructure needs and local area growth . Expenditures in 2006 were $392,000, in 2007 were $1,246,000 and in 2008 are budgeted to be $1,127,000. Anticipated expenditures for the remainder of the project are $3,617,000 in 2009, $2,221,000 in 2010, $2,782,000 in 2011, and $2,224,000 in 2012 for a total of $13,413,000.

The “WH-1”, “WH-2”, “A”, and “C” reconductoring projects are all associated with our Aluminum Conductor Steel Reinforced (ACSR) Conductor Replacement Program. These projects are predicated on conductor failures and subsequent testing of the line conductor. Test results have shown that the existing ACSR conductor on several lines require replacement. The replacement will improve reliability and load serving capability to customers. The 69 kV “WH-1” and “WH-2” lines are 13.8 miles long each and are located in Ulster and Sullivan County. Anticipated expenditures are $75,000 in 2010,

$1,516,000 in 2011, $1,522,000 in 2012, and $1,522,000 in 2013 for a total of $4,635,000.

The 115 kV "A" and "C" lines are a total of 10.8 miles long and are located in Dutchess County (this reconductoring project may be subject to Article VII). Anticipated expenditures are $75,000 in 2012, $1,660,000 in 2013 and $5,103,000 in future years for a total of $6,838,000 with an in-service date of 2015.

In 2006, Central Hudson performed a LiDAR survey of its entire transmission system. This cutting-edge surveying technology combined with the use of PLS-CADD modeling technology allowed Central Hudson's engineers to develop very detailed models of the transmission system under varying loading conditions. As part of this study, appropriate versions of the National Electric Safety Code were reviewed. The study revealed a number of changes in right of way use, ground profiles and encroachments (compared to what was assumed in the original design). Central Hudson has identified 624 spans that do not meet required clearances and will be including in the transmission sag mitigation program. 108 spans will be addressed utilizing retensioning, and 516 spans will be addressed utilizing structure/conductor replacement. Anticipated expenditures for re-tensioning are $3,300,000 . However, these costs are assumed to be expense items and have been included in the Schedule of the revenue requirement panel. Anticipated expenditures for structure/conductor replacement, which has been treated as

capital projects, are $23,500,000. This work will start in 2008, with anticipated completion in 2012.

Q. Referring to Exhibit __ (PEH-2), Schedule B, are there any comments that you would like to make on the “Substation” category?

A. “Substation” expenditures for the period 2009 through 2013 are projected to total $62,593,000. These expenditures are for both the installation of new substations and improvements to existing substations. These projects will reinforce the electric system and provide the capability to reliably serve projected area distribution loads as system growth occurs.

A new Spackenkill Road substation is planned to address demand growth in the Poughkeepsie area. This station will be rated 50 MVA 115-13.8 kV, is anticipated to cost $6,662,000 and is planned to go into service in 2010. The new Galeville substation, which was part of the P & MK lines Article VII approval, is a new 30 MVA 115X69-13.8 kV that is being built to address load growth and prepare for the conversion of the existing MK transmission line facilities to 115 kV. It is anticipated that the Galeville project will be completed in 2010 with a budgeted cost of $6,389,000.

Additionally, several major modifications to existing substations are planned to address load growth. These reinforcements include the Knapps Corners, Manchester, Wiccopee and East Fishkill Substations. The scope of the Knapps Corners and Manchester Substation projects is primarily the upgrade

of transmission line terminal equipment associated with the installation of the Spackenkill Substation. The scope of the East Fishkill and Wiccopee Substation projects is the installation of transmission line terminal equipment for the new East Fishkill to Wiccopee transmission line. The total cost of these projects is budgeted at $2,005,000.

Other substation projects include the upgrade / replacement of three substations, and a systematic program to replace circuit breakers.

The Saugerties, Rhinebeck and Grimley Road (Ellenville) Substations are planned to be upgraded / replaced. A new Saugerties station, scheduled for completion in 2012, is planned to address infrastructure and operating limitations of the existing substation. The new station will be rated 50 MVA, 115X69-13.8 kV and will be initially supplied by 69 kV transmission facilities (this design is consistent with the long range plan for this area which will have this substation served by 115 kV transmission). The total cost for this project is budgeted at $7,875,000. A 20 MVA 115-13.8 kV transformer primarily serves the Rhinebeck Substation's distribution load. This load is reserved by two 69-13.8 kV transformers. These transformers are over 77 years old and have reached the end of their useful lives. It is planned to replace these two transformers with a second 20 MVA 115-13.8 kV transformer to create a firm 50 MVA substation at Rhinebeck. The total cost of this project is $5,723,000 with an in-service date of 2013. The Grimley Road (Ellenville) project scope is planned to include the replacement of the

existing transformers with the transformers from the Galeville Substation, replacement of the wood pole substation structures with steel structures and upgrading protection, control and communications. The total cost of this project is $1,260,000 with and in-service date of 2013. The Coombe Road Substation will relocate our existing Neversink Substation as a result of a requirement of transfer of ownership to the New York City Board of Water Supply of the Neversink Hydro Plant. This station will be rated 6 MVA 69-13.8 kV, is anticipated to cost $2,283,000 and is planned to go into service in 2011.

Central Hudson has an ongoing plan to address circuit breaker infrastructure issues. These issues include circuit breakers with duties near or above their interrupting ratings, circuit breakers with poor condition assessments, and circuit breakers that are obsolete. The selection criteria used for this program has identified 166 circuit breakers for replacement, including ten 345kV circuit breakers over the next five years at an estimated cost of $25,586,000. These replacements will improve the reliability of the transmission and distribution system.

Q. Are there any significant programs and or expenditures that are included in the “Distribution Improvements” category?

A. The majority of the expenditures relate to the day-to-day capital requirements for distribution facilities. However, $22,295,000 has been included for

infrastructure improvement programs. Additionally $3,854,000 is included for the construction of distribution facilities associated with the substation reinforcements previously discussed.

Several infrastructure improvement programs have been identified. These include a program to address 14.4kV paper and lead insulated cable replacement, 14.4kV underground infrastructure, distribution porcelain cutout replacement, distribution pole replacements, Automatic Load Transfer (ALT) switch installations, Distribution Recloser replacements, and other smaller programs.

Central Hudson has approximately 55 miles of 14.4kV paper and lead insulated cables much of which is over 60 years old and is nearing the end of its useful life. Failures of these cables are typically associated with cracks in the lead sheath. Central Hudson has developed a systematic plan to replace the highest priority cables and address underground infrastructure (manholes, pullboxes and ductbanks) as part of this program. The majority of this work is associated with cables that feed the secondary network for the City of Poughkeepsie. Planned expenditures for these projects are $8,570,000 over five years. Central Hudson began a program to replace porcelain cutouts in 2002. The failure mode for porcelain cutouts is cracks in the porcelain that eventually cause faults and subsequent customer outages. Central Hudson has already replaced approximately 5,000 cutouts. This phase of the plan will result in the replacement of approximately the next

10,000 highest priority porcelain cutouts. This program is prioritized based on a cost benefit metric that the Company has utilized for reliability related projects. Planned expenditures for porcelain cutout replacements are $4,000,000 over the next five years.

Q. Please explain how forecasted construction expenditures were determined for the electric program categories entitled “New Business”, “Transformers”, and “Meters” as shown on Schedule B of Exhibit __ (PEH-2).

A. Forecasted expenditures for these categories were trended based on recent actual experience. In general these categories are related to the growth in number of residential customers and residential sales. While the slowing of customer growth might seem to suggest that spending in these categories would be reduced, the sum of these three categories is projected to rise modestly based on the significant increases that we have experienced in transformer costs.

Q. Referring to Exhibit __ (PEH-2), Schedule C, what are the major projects identified in the Gas Capital Program.

A. The major projects identified in the Gas Capital Program are the “CH” system reinforcement, three transmission line valve replacements, three transmission line valve additions, and two new regulator stations at North Coxsackie and Vail Road, three regulator station re-builds, 3 regulator station

upgrades, a road rebuild project on Robinson Avenue (NYS Rte 9W) in Newburgh, and two new capital initiatives.

Q. Referring to Exhibit __ (PEH-2), Schedule C, are there any comments that you would like to make on the “Transmission” category?

A. “Transmission” expenditures for the period 2009 through 2013 are projected to total $4,001,000. These expenditures are for both the installation of new transmission system components and improvements to the existing transmission system. Many of the capital improvements stem from system load studies or studies performed as part of the pipeline integrity program. Other improvements are from conditions discovered during the operating and maintenance of the system.

Q. Referring to Exhibit __ (PEH-1), Schedule C, are there any comments that you would like to make on the “Regulator” category?

A. “Regulator” expenditures for the period 2009 through 2013 are projected to total $3,764,000. These expenditures are for both the installation of new regulator stations and improvements to existing regulator stations. These projects will reinforce the gas system and provide the capability to reliably serve projected area distribution loads as system growth occurs.

Q. Are there any specific regulator station projects that are required because of

new load development?

A. Yes. The Capital Plan includes the installation of two new regulator stations related to new load development. These stations are the North Coxsackie and Vail Road regulator stations scheduled for 2010. There are three other stations that are being rebuilt due to load increases, the East Fishkill Regulator station in 2011 to support increased load on the “HH” system in southern Dutchess County, the Hudson River Psychiatric Center in 2012 to provide redundancy to the “HP” system in the Hyde Park area, and the Austin Road station in Carmel to provide redundancy to the “SM” system in Mahopac and Carmel.

Q. Please explain how forecasted construction expenditures were determined for the categories entitled “New Business” and “Meters” as shown on Schedule C of Exhibit __ (PEH-1).

A. Forecasted expenditures for these categories were based on recent actual experience. The “New Business”, and “Meters” categories are related to customer growth. This growth is primarily from adding customers with limited growth from existing customers.

Load growth is allocated to gas systems in locations where there is expected residential development or where there are active discussions for commercial development (Stewart Field, New Baltimore).

The sum of these two categories is projected to decrease from prior years

based on the reduced projected customer growth.

Q. Please explain how forecasted construction expenditures were determined for the category entitled “Distribution Improvements” as shown on Schedule C of Exhibit __ (PEH-1).

A. Forecasted expenditures for this category are based on a combination of distribution improvement initiatives. The category includes service replacements, required cast iron replacement associate with road re-builds or other facility replacements, cast iron or steel main replacements based on system studies, maintenance history, and risk analysis modeling. There are also system reinforcement projects included in this category to ensure system reliability, the most significant of these being the “CH” line reinforcement of the western Orange County area, a continuation of a project started in 2006. The infrastructure replacement projects are reviewed and prioritized based on operating experience and risk reduction. The projected expenditures for the “Distribution Improvements” category totals $44,405,000 and reflects a continuation of an accelerated program for gas safety and system reliability improvements. The capital funds related to the replacement of cast iron and steel mains and services is $33,700,000 over the 5-year forecast.

Q. Referring to Exhibit __ (PEH-2), Schedule C, are their any new initiatives or

capital programs that have included in the gas capital forecast?

A. Yes, there is one new and one enhanced program that have been added to the gas capital forecast. Both programs have expenditures included in the Distribution Improvement category. The first is targeted at replacing steel services with inside meter sets. Central Hudson has identified approximately 3,000 services that have the following characteristics: they are constructed of steel, they are at pressures of greater than 1 psig, and the service terminates inside the customer's building. Central Hudson has identified this construction standard to be at increased risk of incremental damage in the event of a dig-in. There have been three incidents in the past 6 years where this configuration of service was involved. This program would initially replace 1500 of these services with plastic pipe, install an excess flow valve, and when feasible relocate the meter and service termination outside. The program expenditures during the 5-year period are approximately $5,000,000.

The second program is an increase in both capital and expense related expenditures targeted at the reduction of the active leak backlog.

A. What is the reasoning behind the proposed enhanced gas leak repair Program.

Q. The proposed program will 1) reduce the total leak backlog, 2) align the current leak repair plan with the Gas Safety target for leak management, and

3) reflect in the Company's rate case forecast and capture in the Rate Plan the trend of the increase in gas leak expenses and the substantial increase in the level of leaks discovered and requiring investigation and repair.

Q. What is the current Gas Safety target for gas leak management?

A. The calendar year 2008 Gas Safety targets set in the prior rate proceeding will continue until changed by the Commission. The Leak Management target is that Central Hudson will reduce the year-end total leak backlog to 250, or repair 340 leaks during that calendar year.

Q. What are the projected costs for this program?

A. The expense related costs for this program are shown on Exhibit __(RRP-2), Schedule B, Gas Leak Repairs - Distribution Main. These costs include the increases in gas leak repair costs related to the higher cost of materials for restoration efforts such as paving and blacktop of which the Company cannot control. These costs also include an increase in the number of leaks repaired during the period 2009 through the use of contractors. This cost projection will completely replace the non-labor costs from the inflation pool. In addition an increase in capital expenditures of $250,000 each year is included for this initiative. The increase in capital expenditures will be utilized to replace short sections of mains and services as a component of this leak reduction program.

Q. Why has the Company proposed this increase in the number of leak repairs?

A. The Company has proposed this increase for two reasons. First, there was a substantial increase in the level of leaks discovered from the period 2004 through 2007. The number of leaks discovered increased from 444 in 2004, to 519 in 2005, 649 in 2006, and 576 in 2007. Second is that during the period 2003 through 2007, although the Company has consistently repaired between 406 and 544 leaks, during the period 2003 through 2007, Central Hudson experienced an increase of its year-end backlog from 302 to 445. It should also be noted that the Company currently has pending before the Commission a request for funding a higher level of effort for leak repair applicable to the period ending June 30, 2008 as part of a pending petition for rehearing.

Q. Do you believe that the quarterly meetings that have been conducted with gas and electric Staff of the Department have been beneficial?

A. Yes, I do. These discussions have helped to foster ongoing communications with Staff regarding our ongoing system planning and electric reliability improvement efforts as well as gas safety initiatives. As a result of the meetings with gas Staff we believe that there is a common desire to reduce the backlog of gas leak repairs and we have proposed funding towards that goal, as described above in my testimony. As a result of the meetings with electric Staff, we have had the opportunity to make detailed presentations and have discussions electric reliability-related initiatives including the

comprehensive distribution trimming assessment. Several of the trimming program recommendations are included in Mr. DuBois' testimony. In addition, the rationale for focusing on many of the electric infrastructure initiatives I have described previously has been reviewed with Staff as part our ongoing joint quarterly reliability meetings.. We feel that the meetings with Staff have been effective and improved the lines of communication, and we hope that gas and electric Staff share our assessment. We suggest that these meetings continue.

Q. Referring to Exhibit __ (PEH-2), Schedule D, what are the major projects identified in the Common Capital Program.

A. The Lands and Building and Office Categories forecast are primarily replacement of existing small capital components. In addition, the Lands and Buildings category includes some major capital replacements at our facilities, such as roofs, windows, and HVAC equipment. There are also two larger facility projects proposed during the period. The first is the construction of a new customer service facility in 2009 in the New Paltz area. This new facility is part of a broader plan that includes the sale of Central Hudson's Eltings Corners facility (subject to Commission approval pursuant to Section 70) and the purchase of a new facility in Kingston. The timing of both the sale and closing for the purchase remain unknown at the time of the preparation of my testimony, but the purchase of the new Kingston facility has been assumed

to occur prior to the rate year. The second is an expansion of the Fishkill Operating Headquarters storeroom and vehicle maintenance garage in 2010 and 2011. The Land and Buildings category also includes capital improvements for energy efficiency improvements at existing Company facilities.

The Tools category provides for normal tool replacement only. No new methods of operation are anticipated that would substantially increase this category's spending.

The Transportation and Mobile Tool categories reflect a level required for the normal replacements at the current fleet size.

The I/T and Communication categories reflect expenditures that are consistent with the 5-year I/T Plan. The I/T Plan includes the purchase of a new mainframe in 2010 to replace the mainframe at the Disaster Recovery site, replacement of the map-board and video wall in the system operations center and the continuation of the 5-year PC replacement schedule and the 3-year mobile computer replacement schedule. The Communication Plan consists of the replacement of the voice recording systems in the call center and system operations, and replacement of the telephone system at South Road in 2012.

Q. How did you apportion the forecasted capital requirements in 2009 and 2010 into the July 2009-June 2010 rate year.

A. A detailed capital forecast was prepared for 2009 that identified expenditures for both the first half of the year and the second half of the year. The 2010 forecast was apportioned between the first and second halves of the year. For Gas Production, Transmission, Regulating Stations, New Business and Distribution Improvements categories, the apportionment was based on individual historical trends in expenditures in these categories . For all other categories, one half of the respective annual amount was included.

Q. Does this conclude your direct testimony?

A. Yes.