

OCC EXHIBIT NO. _____

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of The)
East Ohio Gas Company d/b/a Dominion) Case No. 07-829-GA-AIR
East Ohio for Authority to Increase Rates)
for its Gas Distribution Service.)

In the Matter of the Application of The)
East Ohio Gas Company d/b/a Dominion) Case No. 07-830-GA-ALT
East Ohio for Approval of an Alternative)
Rate Plan for its Gas Distribution Service.)

In the Matter of the Application of The)
East Ohio Gas Company d/b/a Dominion) Case No. 07-831-GA-AAM
East Ohio for Approval to Change)
Accounting Methods.)

In the Matter of the Application of The)
East Ohio Gas Company d/b/a Dominion)
East Ohio for Approval of Tariffs to)
Recover Certain Costs Associated with a) Case No. 08-169-GA-ALT
Pipeline Infrastructure Replacement)
Program Through an Automatic)
Adjustment Clause and for Certain)
Accounting Treatment.)

In the Matter of the Application of The)
East Ohio Gas Company d/b/a Dominion) Case No. 06-1453-GA-UNC
East Ohio for Approval of Tariffs to)
Recover Certain Costs Associated with)
Automated Meter Reading and for Certain)
Accounting Treatment.)

PUBLIC VERSION

**DIRECT TESTIMONY
OF
STEVEN B. HINES**

**ON BEHALF OF
THE OFFICE OF THE OHIO CONSUMERS' COUNSEL
10 West Broad St., Suite 1800
Columbus, OH 43215**

June 23, 2008

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TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION.....	1
II. PURPOSE OF TESTIMONY	2
III. RESTRICTED STOCK GRANT	3
IV. DEMONSTRATION AND SELLING EXPENSES	6
V. GAS TECHNOLOGY INSTITUTE PROGRAM FUNDING EXPENSES.....	8

CERTIFICATE OF SERVICE

SCHEDULES

- SBH-C-3.8 Restricted Stock Grant Adjustment
- SBH-C-3.27 Payroll Taxes
- SBH-C-3.29 Demonstration and Selling Expenses Exclusion

ATTACHMENTS

- SBH-A Steven B. Hines – Utility Testimony
- SBH-B Attachment to Company response to OCC Interrogatory No. 454 – Test Year Incentive Compensation (Unadjusted).
- SBH-C Staff Workpaper – E-mail to Staff from Vicki H. Friscic dated February 20, 2008 regarding Restricted Stock Awards.
- SBH-D Attachment to Company response to OCC Request to Produce No. 67 – Dominion Resources, Inc. 2005 Incentive Compensation Plan. **(CONFIDENTIAL)**
- SBH-E Company Workpaper WPC 3-7 submitted to the Commission by DEO along with the Standard Filing Requirements.
- SBH-F GTI 2007 Annual Report
- SBH-G “Introduction to Gas Technology Institute” from GTI website.
- SBH-H E-mail dated January 23, 2008, subject: GTI Funding – OTD Fee Explanation.
- SBH-I Staff Workpaper – Handwritten notes on GTI.
- SBH-J E-mail dated January 7, 2006 from Vicki Friscic to Ibrahim Soliman regarding GTI funding.
- SBH-K Gas Technology Institute Background and Capabilities

I. INTRODUCTION

Q1. PLEASE STATE YOUR NAME, ADDRESS AND POSITION.

A1. My name is Steven B. Hines. My business address is 10 West Broad Street, Suite 1800, Columbus, Ohio 43215-3485. I am employed by the Office of the Ohio Consumers' Counsel ("OCC" or "Consumers' Counsel") as a Senior Regulatory Analyst.

Q2. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A2. I earned a Master of Business Administration degree from Ashland University in 2000. I also earned a Master of Arts degree from The Ohio State University in 1981 and a Bachelor of Fine Arts degree from Ohio University in 1978.

Q3. PLEASE SUMMARIZE YOUR WORK EXPERIENCE.

A3. I joined the OCC in April 1984 as an Investigator I. During the course of my employment at OCC, I have also held the positions of Investigator II, Utility Rate Analyst III, Utility Rate Analyst Supervisor, Regulatory Analyst and Senior Regulatory Analyst. My current duties as a Senior Regulatory Analyst include research, investigation and analysis of utility applications for increases in rates and gas cost recovery filings. I also participate in special projects and investigations and provide training on technical issues when necessary.

1 ***Q4. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THIS***
2 ***COMMISSION?***

3 ***A4.*** Yes. I have submitted testimony before the Public Utilities Commission of Ohio
4 ("PUCO" or "Commission") in the cases listed in Attachment SBH-A.

5
6 ***Q5. WHAT HAVE YOU RELIED UPON IN THE PREPARATION OF YOUR***
7 ***TESTIMONY?***

8 ***A5.*** From the current case I have reviewed the Dominion East Ohio ("DEO" or "the
9 Company") Rate Case Application, Standard Filing Requirements and associated
10 workpapers, Company testimony, the PUCO Staff Report of Investigation ("Staff
11 Report") and associated workpapers, the Report of Conclusions and Recommendations
12 on the Financial Audit of the East Ohio Gas Company d/b/a Dominion East Ohio
13 performed by Blue Ridge Consulting Services, Inc. ("BRCS Report"), Company
14 responses to Blue Ridge data requests and Company responses to OCC discovery. I have
15 also reviewed documents and Opinions and Orders from other proceedings.

16
17 **II. PURPOSE OF TESTIMONY**
18

19 ***Q6. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?***

20 ***A6.*** My testimony will support certain OCC objections to the PUCO Staff Report, address the
21 issues raised by those objections as they relate to the determination of rate base and
22 operating income and present quantification of those issues. Specifically, I will address

OCC's objections related to the Restricted Stock Grant included in labor expenses, Demonstration and Selling Expenses, and Gas Technology Institute ("GTI") Funding Expense to explain which expenses should not be included in the rates that are charged to customers.

The adjustments I have made regarding the first two items are incorporated into OCC witness Hixon's revenue requirement calculation.

III. RESTRICTED STOCK GRANT

Q7. WHAT IS A RESTRICTED STOCK GRANT?

A7. In the context of Staff Schedule C-3.8a, and as defined in a Company e-mail to Staff (See Attachment SBH-C), a Restricted Stock Grant is a component of the Long Term Incentive Plan. The Long Term Incentive Plan is designed to grant shares of Dominion Resources, Inc. stock to employees in the form of restricted and goal-based shares. Although all non-union exempt employees are eligible to receive an award of Long Term Incentive shares of stock, the awards are granted on a discretionary basis for key employees.

Q8. DID THE COMPANY INCLUDE AN AMOUNT FOR A RESTRICTED STOCK GRANT IN ITS APPLICATION?

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Direct Testimony of Steven B. Hines
On Behalf of the Office of the Ohio Consumers' Counsel
PUCO Case No 07-829-GA-AIR et al.

1 **A8.** Yes. According to a Staff Workpaper (OCC Attachment SBH-C), the Company included
2 under Natural Account No. 5300185 a test year expense amount of \$540,111 for a
3 Restricted Stock Grant. This \$540,111 amount was derived using three months of actual
4 and nine months of estimated information. The Company also included this amount as
5 the per book amount of restricted stock awards and \$0 as the per tax amount in its
6 reconciling items to its federal income tax calculation on Schedule C-4.1.

7
8 **Q9. DID THE PUCO STAFF INCLUDE AN AMOUNT FOR A RESTRICTED STOCK**
9 **GRANT IN ITS SALARIES LABOR EXPENSE ADJUSTMENT?**

10 **A9.** Yes. Staff included \$250,419 ($\$279,860 \times .8948$ O&M ratio) in its Salaries Labor
11 Expense Adjustment to reflect the actual Restricted Stock Grant Expense during the test
12 year, on Schedule C-3.8a. The Staff reduced the Company's filed test year amount by
13 \$289,692 ($\$540,111 - \$250,419$) to reflect the actual amount of the Restricted Stock
14 Grant Expense in the test year. Staff's adjustment to the Restricted Stock Grant Expense
15 on Schedule C-3.8a was carried through to Schedule C-3.27c where an adjustment to
16 payroll taxes was also made. On Schedule C-4, the Staff reduced Other Reconciling
17 Items on line 6 by \$260,251 as well, resulting in a per book amount of \$279,860 for
18 restricted stock awards.

19
20 **Q10. WHAT RECOMMENDATION DO YOU MAKE IN THIS REGARD?**

21 **A10.** I recommend that the Restricted Stock Grant expense of \$279,860 on Staff Schedule C-
22 3.8a be eliminated from consideration in this case. After applying the O&M ratio of

1 .8948, my recommended adjustment is \$250,419 as shown on Schedule SBH-C-3.8. The
2 reasons for my adjustment are set forth below.

3
4 **Q11. WHAT IS THE RATIONALE FOR YOUR ADJUSTMENT?**

5 **A11.** The Dominion Resources, Inc. 2005 Incentive Compensation Plan ("Plan") (Attachment
6 SBH-D CONFIDENTIAL) states that the purpose of the "Plan" is to [BEGIN
7 CONFIDENTIAL DISCUSSION] [REDACTED]

8 [REDACTED]

9 [REDACTED] [END

10 CONFIDENTIAL DISCUSSION]¹ Also, according to Dominion Retail Inc.'s 2008
11 Proxy Statement, "a substantial portion of each officer's total direct compensation is tied
12 to the performance of Dominion's stock through long-term restricted stock grants,
13 ranging from 17% of targeted total compensation for a typical vice president up to 36%
14 for Mr. Farrell."² These stock awards are clearly tied to the profitability of the Company.
15 This tying of the incentive to the profitability of the Company is focused on benefiting
16 investors and not customers. Therefore, these incentive costs should not be included for
17 collection from customers.

18
¹ DEO confidential response to OCC Request to Produce No. 67, Dominion Resources, Inc. 2005 Incentive Compensation Plan, page 1, item 1.

² Company response to OCC Interrogatory No. 185, Dominion 2008 Proxy Statement, page 16.

**Q12. DO YOU RECOMMEND ANY OTHER ADJUSTMENTS RELATED TO
ELIMINATION OF THE RESTRICTED STOCK GRANT EXPENSE FROM LABOR
EXPENSE?**

A12. Yes. Other adjustments that should be made to prevent collection of amounts from customers and which are consistent with my elimination of the Restricted Stock Grant Expense from Labor Expenses include Payroll Taxes being reduced by \$18,813 from Staff's total Payroll Taxes on Staff Report Schedule C-3.27c. My adjustment to Payroll Taxes is set forth on Schedule SBH-C-3.27. Also, I recommend that Other Reconciling Items on Staff Schedule C-4 be further reduced by \$279,860 to zero in order to reflect the proper treatment of my adjustment to Restricted Stock Grant Expense in Income Taxes.

IV. DEMONSTRATION AND SELLING EXPENSES

**Q13. DID THE COMPANY INCLUDE DEMONSTRATION AND SELLING EXPENSES
IN ITS APPLICATION?**

A13. Yes. The Company included a test year amount of \$103,057 for Demonstration and Selling Expenses, on Schedule C-2.1, page 6 of 8.

**Q14. DID THE PUCO STAFF MAKE ANY ADJUSTMENT TO ACCOUNT 912,
DEMONSTRATION AND SELLING EXPENSES, IN THE STAFF REPORT?**

A14. No. It does not appear that Staff made any adjustments to Account 912 in the Staff Report.

1 ***Q15. ARE YOU PROPOSING AN ADJUSTMENT TO ACCOUNT 912,***
2 ***DEMONSTRATION AND SELLING EXPENSES?***

3 ***A15.*** Yes. I propose that the test year be adjusted to exclude the entire amount of \$103,057 in
4 Account 912, Demonstration and Selling Expenses, so that this amount is not included in
5 the rates that the Company charges to customers.

6
7 ***Q16. WHAT IS THE RATIONALE FOR YOUR PROPOSED ADJUSTMENT?***

8 ***A16.*** The Uniform System of Accounts for Gas Utilities developed and maintained by the
9 Federal Energy Regulatory Commission ("FERC") describes Account 912 as including
10 "expenses incurred in promotional, demonstrating, and selling activities" with the goal of
11 promoting or retaining "the use of utility services by present and prospective customers."
12 These kind of expenses are clearly promotional in nature and do not provide a direct and
13 primary benefit to ratepayers. The Commission has previously excluded Demonstration
14 and Selling Expenses on the grounds that these expenses are promotional in nature.³
15 Therefore, the total amount of Demonstration and Selling Expenses should be excluded
16 so that customers are not charged rates that include these amounts. My adjustment is set
17 forth on Schedule SBH-C-3.29.

³ *In the Matter of the Application of Ohio Edison Company for Authority to Increase Rates*, Case No. 89-1001-EL-AIR, Opinion and Order, (August 16, 1990) at 54.

V. GAS TECHNOLOGY INSTITUTE PROGRAM FUNDING EXPENSE

**Q17. DID THE COMPANY INCLUDE GAS TECHNOLOGY INSTITUTE ("GTI")
PROGRAM FUNDING EXPENSE IN ITS APPLICATION?**

A17. Yes. The Company included \$600,000 in its Rate Case Application for GTI Program Expense, on Schedule C-3.7. The Company states that this funding level is specific to GTI's Operational Technology Development ("OTD") program.⁴ The Company's workpapers give examples of OTD projects which include pipe and leak location; environmental science and forensic chemistry; operations infrastructure support; excavation and site restoration; pipeline integrity management and automation; and pipe materials, repair and rehabilitation.⁵ On pages 9 through 13 of his testimony, Company witness Ronald Edelstein lists ten projects that GTI is planning that DEO has expressed interest in. These projects are:

- 1) Miniature Methane/Ethane Detector for Leak Surveys;
- 2) Hand-Held Acoustic System for Plastic Pipe Location;
- 3) Remote Laser Leak Surveys;
- 4) Integration of Electromagnetic and Acoustic Obstacle Detection Systems for Utility Construction Operations;
- 5) Product Development of an Obstacle Detection System Using Ground Penetrating Radar;
- 6) Inspection Platforms for Unpiggable Lines;

⁴ See Attachment SBH-E.

⁵ See Attachment SBH-E.

- 1 7) Safe Reliable Operation and Maintenance of Aldyl A Plastic Gas Pipe Systems;
- 2 8) Alternative Methods for Pavement Cutting;
- 3 9) Micro-Excavation System Applications; and
- 4 10) Service Applied Main Stopper.

5 These examples appear to fall under the research category of "Delivery" as described in
6 the 2007 GTI Annual Report, (Attachment SBH-F).⁶ Mr. Edelstein states in his
7 testimony that DEO has expressed an interest in these projects because they "increase
8 safety, enhance integrity and minimize escalation of O&M costs."⁷ He also states, "the
9 choice of specific projects is up to DEO" and the Company "will provide the
10 authorization as to where their research-funding dollars are applied from the list of
11 candidate projects."⁸

12

13 ***Q18. DID THE STAFF ADJUST THE GTI PROGRAM FUNDING AMOUNT***
14 ***REQUESTED BY THE COMPANY?***

15 ***A18.*** No. Staff accepted the Company's proposed GTI program funding level of \$600,000.

16

17 ***Q19. WHAT PRODUCTS AND SERVICES DOES THE GAS TECHNOLOGY INSTITUTE***
18 ***PROVIDE?***

19 ***A19.*** According to its website, GTI specifically:

- 20 1) Performs contract research, development and demonstration projects;

⁶ Pg. 14 of the GTI 2007 Annual Report found in OCC Attachment SBH-F.

⁷ Edelstein Direct Testimony at 9.

- 2) Provides technical services related to energy and the environment;
- 3) Commercializes new energy-related technology;
- 4) Plans and manages technology development programs for the gas industry and other clients;
- 5) Aggregates funding for collaborative research and development programs of interest to individual companies, consortia and government agencies; and
- 6) Provides education and training on technical and business topics related to energy and natural gas (see Attachment SBH-G, page 1).

Q20. HOW IS THE GTI FUNDED TODAY?

A20. As described on the GTI website, GTI is typically funded through four sources of revenue:

- 1) Contracts from customers for research, program management, technical services, technology development and education programs;
- 2) Royalty and license fees from GTI technologies incorporated into commercial products and services;
- 3) The Sustaining Membership Program by which its investors support collaborative, mid-term technology development; and
- 4) Returns from the activities of the GTI subsidiaries and other technology investments (see Attachment SBH-G, page 2).

Q21. HOW WAS GTI PREVIOUSLY FUNDED?

A21. As Mr. Edelstein alludes to in his testimony, beginning in 1977 GRI (the Gas Research Institute, the predecessor organization of GTI) was funded by a FERC-authorized surcharge on gas transported through interstate pipelines.⁹ On April 29, 1998, FERC

⁸ Edelstein Direct Testimony at 13.

⁹ Edelstein Direct Testimony at 3.

1 issued an Order Approving Settlement that, in part, phased-out the FERC-approved
2 research and development surcharges by December 31, 2004.¹⁰ From that point forward,
3 the funding of GTI (formerly GRI or the Gas Research Institute) was to be through
4 voluntary contributions by interstate pipelines and shippers.¹¹ GTI attempted to resurrect
5 the pipeline surcharge through FERC Docket No. RP04-378-000, but in its Order, FERC
6 denied GTI such a mechanism stating that GTI was the successor company to GRI and is
7 bound by the terms of the 1998 settlement agreement, including the provision for
8 voluntary funding after 2004.¹² Hence, this decision by FERC appears to be the reason
9 why DEO seeks collection from customers of \$600,000 for GTI program funding in this
10 case.

11
12 ***Q22. HOW WAS THE \$600,000 FUNDING LEVEL DETERMINED?***

13 ***A22.*** According to a Staff Workpaper (see Attachment SBH-H), a 50 cent per customer annual
14 charge was developed based off of the old pipeline surcharge of \$0.0147 per Mcf. This
15 50 cent per customer rate is equivalent to 1.74 cents per MMBtu or roughly 20 percent of
16 the prior FERC-approved pipeline surcharge.¹³ However, in another Staff Workpaper
17 (see Attachment SBH-I), the 50 cent per customer charge is said to be about one-third of
18 the FERC-approved pipeline surcharge because operations research, or OTD, was about

¹⁰ GTI, FERC Docket Nos. RP97-391-000, RP97-149-002 and RM97-3-000, Stipulation and Agreement Concerning GRI Funding, (January 21, 1998) at 20 and 21.

¹¹ GTI, FERC Docket Nos. RP97-391-000, RP97-149-002 and RM97-3-000, Stipulation and Agreement Concerning GRI Funding, (filed January 21, 1998) at 14 and 15.

¹² GTI, FERC Docket No. RP04-378-000, Order on Application for Advance Approval of a Research and Development Program and Jurisdictional Rate Provisions to Fund the Program (November 18, 2004) at 27.

¹³ Edelstein Direct Testimony at 15.

1 one-third of the total \$1.50 annually to each customer (Average load of 80 million Btu
2 times 1.74 cents per MMBtu) -- the rest of the charge recovering research related to
3 supply and end use solutions. Thus, 50 cents per customer multiplied by 1.2 million
4 customers of DEO equals \$600,000 (see Attachment SBH-J). It should also be noted that
5 none of the other major natural gas local distribution companies in Ohio (Duke Energy
6 Ohio, Vectren Energy Delivery of Ohio and Columbia Gas of Ohio) include GTI
7 Program Funding Expense in their rates, although, Duke and Vectren are Associate
8 Members of GTI, and NiSource (parent of Columbia) is a Sustaining Membership
9 Program Member of GTI. Dominion is currently an Associate Member of GTI.¹⁴
10

11 ***Q23. WHAT DO YOU RECOMMEND WITH REGARD TO THE GTI PROGRAM***
12 ***FUNDING EXPENSE?***

13 ***A23.*** I recommend that if the Commission approves the collection of this expense from DEO
14 customers, half of the \$600,000 should go toward funding projects in GTI's Utilization
15 Technology Development ("UTD") Program.
16

17 ***Q24. WOULD YOU PLEASE EXPLAIN WHAT THE UTD PROGRAM IS AND HOW IT***
18 ***DIFFERS FROM THE OTD PROGRAM?***

19 ***A24.*** Yes. The UTD Program focuses on technologies that improve efficiency, expand the
20 natural gas product portfolio, increase the competitiveness of U.S. industry and minimize

¹⁴ GTI Membership: Participants in the GTI Membership Program.
<http://www.gastechnology.org/webroot/app/xn/xd.aspx?it=enweb&xd=7Membership/members.xml> (last viewed on
June 10, 2008).

1 environmental impact. The UTD Program utilizes expertise from GTI's End Use
2 Solutions Sector ("EUSS") and one of the areas of expertise under the EUSS is
3 residential and commercial appliances.¹⁵ As explained in more detail above, the OTD
4 program generally addresses safety, pipeline integrity and construction/operations
5 innovations leak detection and third party damage prevention. The Delivery Sector of
6 GTI would have the expertise to perform this kind of research.¹⁶

7
8 ***Q25. WHAT IS YOUR RATIONALE FOR RECOMMENDING SUCH AN ALLOCATION***
9 ***OF THE GTI PROGRAM FUNDING BETWEEN OTD AND UTD PROJECTS?***

10 ***A25.*** The timing of including funding for OTD projects in rates appears to be related to aiding
11 DEO with pipeline location and excavation under its proposed Pipeline Infrastructure
12 Replacement Program ("PIRP") in Case No. 08-169-GA-ALT. These particular OTD
13 projects appear to be related to certain capital expenditures DEO proposes to collect from
14 customers through the Pipeline Infrastructure Replacement Program automatic recovery
15 mechanism -- specifically those capital expenditures related to transmission and
16 distribution pipeline integrity and environmental compliance.¹⁷

¹⁵ See Attachment SBH-K.

¹⁶ See Attachment SBH-K.

¹⁷ *In the Matter of The East Ohio Gas Company d/b/a Dominion East Ohio for Approval of Tariffs to Recover Certain Costs Associated with a Pipeline Infrastructure Replacement Program Through an Automatic Adjustment Clause, And for Certain Accounting Treatment*, Case No. 08-169-GA-ALT, Application at 7 (February 22, 2008).

1 Since DEO chooses which programs to fund, this does not represent a voluntary¹⁸ action
2 on the part of residential consumers. Residential customers have no say in the matter as
3 to what GTI programs would benefit them the most. Because residential customers
4 consumed the majority of volumes (roughly 60.4 percent),¹⁹ half of the funds (\$300,000)
5 should go toward UTD programs -- particularly those that would more directly benefit
6 residential customers.

7
8 ***Q26. IF THE COMMISSION WERE TO ALLOW THE ALLOCATION OF THE FUNDS***
9 ***BETWEEN THE UTD AND OTD PROGRAMS IN THIS MANNER, SHOULD***
10 ***THERE BE A PROCESS TO ENSURE THAT THESE FUNDS GO EQUALLY***
11 ***TOWARD UTD AND OTD PROGRAMS?***

12 ***A26.*** Yes. I recommend that within one year of the filing of the Opinion and Order in this
13 case, and every year thereafter until the next rate case, the Company should file a report
14 with the Commission describing UTD and OTD projects funded by DEO customers are
15 supporting, the dollar amount of funds actually going to each project and an explanation
16 from DEO as to how each of these projects benefits its residential customers. This should
17 be considered a pilot approach. If these reports show that funds collected from customers
18 are not being applied equally between OTD and UTD projects, or the UTD projects
19 selected by DEO are not directly benefiting DEO's customers, the Commission should
20 take some form of action. Specifically, the Commission should ensure that the allocation

¹⁸ GTI, Order Approving Settlement, Docket Nos. RP 97-149-003, RP97-149-004, RP97-391-001, RP97-391-002, and RM97-3-001 (April 28, 1998).

¹⁹ Rate Case Application, volume 2, Schedule E-4, pg.1, (143,705,746 / 237,873,693 Mcf) = 60.4 percent.

Public Version
Direct Testimony of Steven B. Hines
On Behalf of the Office of the Ohio Consumers' Counsel
PUCO Case No 07-829-GA-AIR et al.

1 process is modified if funds are not being distributed equally between UTD and OTD
2 projects. If the UTD projects selected by DEO are not directly benefiting DEO's
3 residential customers, the Commission could terminate half of the GTI funding going
4 toward the OTD projects or terminate the funding for GTI programs altogether.

5 Subsequent to the docketing of these reports to the Commission, parties should be
6 allowed time to review and comment on the content of the reports. After this process, if
7 the Commission determines that customers should no longer pay for some or all of the
8 UTD and OTD projects, then the GTI program funding expenses should be subject to
9 refund to customers.

10
11 ***Q27. DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?***

12 ***A27.*** Yes. However, I reserve the right to incorporate new information that may subsequently
13 become available. I also reserve the right to supplement my testimony in the event the
14 PUCO Staff fails to support the recommendations made in the Staff Report and/or
15 changes positions made in the Staff Report.

East Ohio Gas Company d/b/a Dominion East Ohio
Case No. 07-829-GA-AIR
Salaries Labor Expense Adjustment

(1) Test Year Number of Full Time Employees (a)	270
(2) Average Monthly Straight Time Wages (a)	\$ <u>6.485</u>
(3) Monthly Straight Time Wages (1) x (2)	1,752,030
(4) Annualized Straight Time Wages (3) x 12	21,024,360
(5) Test Year Actual Overtime Wages (a)	169,907
(6) Test Year Actual Parttime Wages (a)	129,810
(7) Test Year Actual Intern Wages (a)	52,966
(8) Test Year Actual Restricted Stock Grant (c)	<u>0</u>
(9) Total Test Year Wages (4) + (5) + (6) + (7) + (8)	21,376,743
(10) O&M Ratio (b)	<u>89.46%</u>
(11) Adjusted Salaries Labor Expense (9) x (10)	\$ <u>19,127,910</u>

- (a) Staff's Workpaper
(b) Applicant's Schedule C-9.1
(c) Text of Testimony

East Ohio Gas Company d/b/a Dominion East Ohio
Case No. 07-829-GA-AIR
Calculation of Payroll Taxes

	<u>FUTA</u>	<u>SUTA</u>	<u>FICA</u>
(1) Annualized O&M Labor Expense (a)			\$ 71,156,614
(2) Payroll Not Subject to Social Security (1) x 2.22% (b)			<u>1,578,577</u>
(3) Taxable Payroll (1) - (2)			69,578,037
(4) Medicare Tax (3) x 1.45%			1,011,771
(5) Social Security Tax (3) x 4.20%			4,313,771
(6) Number of Employees (c)	1,452	1,452	
(7) Taxable Wages	\$ 7,000	\$ 9,668	
(8) Taxable Wages (6) x (7)	10,154,000	13,668,000	
(9) Tax Rate	<u>0.80%</u>	<u>0.40%</u>	
(10) FUTA And SUTA Taxes (8) x (9)	81,312	52,272	
(11) O&M Ratio (d)	<u>78.85%</u>	<u>78.85%</u>	
(12) O&M FUTA And SUTA Taxes (10) x (11)	64,115	41,216	<u>105,331</u>
(13) Total Payroll Taxes (4) + (5) + (12)			\$ <u>5,450,873</u>

- (a) OCC Adjusted Salaries Expense of \$ 19,117,519 from Schedule SBH-C-3.8 plus Annualized Hourly Labor Expense of \$52,029,725 from Staff Schedule C-3.8b
 (b) Applicant's Schedule WPC-3.17
 (c) Staff's Schedules C-3.8a and C-3.8b (270 + 1,182)
 (d) Applicant's Schedule C-9.1

East Ohio Gas Company d/b/a Dominion East Ohio
Case No. 07-029-GA-AIR
Demonstration and Selling Expenses Exclusion

(1) Elimination of Demonstration and Selling Expense (a)

\$ (103,057)

(a) Company Schedule C-2.1, page 6 of 8, line 20

**UTILITY TESTIMONY OF
STEVEN B. HINES**

- *Establishment of an Appropriate Recovery Method for Percentage of Income Payment Plan Arrearages* – Case No. 87-244-GE-UNC*
- *Eastern Natural Gas Company* – Case No. 89-1714-GA-AIR*
- *Columbia Gas of Ohio, Inc.* – Case Nos. 91-195-GA-AIR and 92-18-GA-GCR
- *Monongahela Power Company* – Case No. 91-1610-EL-AIR
- *Ohio American Water Company* – Case Nos. 92-2299-WW-AIR, 95-935-WW-AIR, 01-626-WW-AIR, 03-2390-WS-AIR and 06-433-WS-AIR
- *East Ohio Gas Company* – Case No. 93-2006-GA-AIR*
- *Consumers Ohio Water Company* – Case No. 95-1076-WW-AIR
- *Cincinnati Gas & Electric Company* – Case Nos. 95-656-GA-AIR*, 03-218-GA-GCR*, 05-218-GA-GCR and 01-1228-GA-AIR Calendar Year 2005).
- *East Ohio Gas Company d/b/a Dominion East Ohio* – Case Nos. 02-219-GA-GCR and 05-474-GA-ATA*
- *Aqua Ohio, Inc.* – Case No. 07-564-WW-AIR
- *Duke Energy Ohio, Inc.* – Case No. 07-589-GA-AIR
- *Mohawk Utilities, Inc.* – Case No. 07-981-WW-AIR

* Cases where testimony before the Public Utilities Commission of Ohio was presented and subject to cross examination

THE EAST OHIO GAS COMPANY d/b/a DOMINION EAST OHIO
Case No. 07-0829-GA-AJR

Test Year Incentive Compensation (Unadjusted)

Month	Actual			Plan												Total
	Jan	Feb*	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec				
Annual Incentive Plan:																
5300180 Sal-Annual Ince	247,251	247,251	247,251	173,080	173,080	173,080	173,080	173,080	173,079	173,081	173,080	173,038	2,299,424			
5300280 Hly-Annual Ince	158,197	158,197	158,197	110,738	110,738	110,737	110,738	110,738	110,737	110,738	110,738	110,737	1,471,229			
	405,448	405,448	405,448	283,819	283,818	283,817	283,818	283,819	283,816	283,819	283,818	283,765	3,770,653			
Other Incentives:																
5300170 Sal-Incentive/Bonus	9,500	19,500	14,500	1,667	3,667	1,997	1,667	1,667	1,995	3,665	1,665	1,995	63,485			
5300185 Restricted Stk Grant	18,047	18,046	18,046	57,307	54,194	54,194	54,194	54,194	54,194	52,614	52,567	52,514	540,111			
	27,547	37,546	32,546	58,974	57,861	56,191	55,861	55,861	56,189	56,279	54,232	54,509	603,596			

* Excludes 2006 annual incentive plan true-up.

Attachment SBH-B

Soliman, Ibrahim

From: Vicki.H.Friscic@dom.com
Sent: Wednesday, February 20, 2008 2:25 PM
To: Soliman, Ibrahim
Subject: Restricted Stock Awards

Abe, the following is an explanation of the incentive plan under which restricted stock awards are granted:

Dominion has a Long Term Incentive plan that is designed to grant shares of Dominion stock in the form of restricted and goal-based (performance) shares; all nonunion, exempt employees are eligible; however, the awards of Long Term Incentive shares of stock are granted on a discretionary basis for key contributors. Restricted stock vests after three years.

Performance-based awards vest after the end of a 24-month performance period and are held an additional year as restricted stock.

Vicki Friscic
Manager Regulatory & Pricing
Dominion East Ohio
(216) 736-5322
Tie Line 8-650-5322

CONFIDENTIAL

Attachment SBH-D

HAS BEEN OMITTED

Schedule Reference: C-3.7

Jeff
Murphy/HQ/EG/C
NG

To Vicki Friscic

cc Eric Hall, Brian D. Witte/Cleveland/EG/CNG@VANCPOWER

06/11/2007 04:28
PM

bcc

Subject Fw: GTI Funding

History:

This message has been forwarded.

Vicki, please include a C-3.1 adjustment for \$600,000 for GTI Operational Technology Development Program. Thanks, Jeff

(Please note that my e-mail address has changed to jeff.murphy@dom.com)

Jeffrey A. Murphy
Director, Pricing & Regulatory Affairs
Dominion East Ohio
1201 East 55th Street, Cleveland, OH 44103-1028
ph: 216-736-6376
tie: 8-650-6376

— Forwarded by Jeff Murphy/HQ/EG/CNG on 06/11/2007 04:28 PM —



Brian D.
Witte/Clevel
and/EG/CN
G

To Jeff Murphy/HQ/EG/CNG@VANCPOWER

cc David Searles/COMMOPS/VANCPOWER@VANCPOWER,
Eric S Hall/Cleveland/EG/CNG@VANCPOWER

06/11/2007
03:46 PM

Subject GTI Funding

Jeff --

We are looking at a funding level of \$600,000 to GTI under their OTD (Operational Technology Development) program.

Examples of OTD Technology projects include:

- Pipe and Leak Location
- Pipe Materials, Repair & Rehabilitation
- Excavation and Site Restoration
- Pipeline Integrity Management & Automation
- Operations Infrastructure Support
- Environmental Science and Forensic Chemistry

We will be discuss the funding options at Dave Searles staff meeting on Tuesday, June 19th in the afternoon. We would welcome your attendance to help with this discussion.

Please see the attached presentation provided by GTI explaining their programs.

Brian

— Forwarded by Brian D. Witte/Cleveland/EG/CNG on 06/11/2007 03:24 PM —



ron.snedic
@gastech
nology.org

To eric.s.hall@dom.com, brian.d.witte@dom.com

cc

06/11/2007
02:07 PM

Subject PPT for Discussion

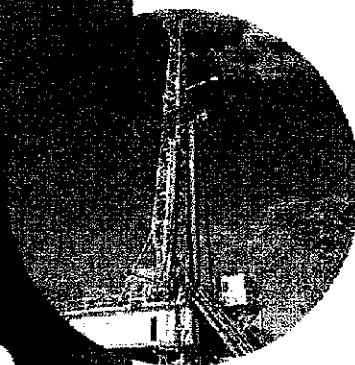
Ron Snedic
Gas Technology Institute
847-768-0572 (office)
847-630-2912 (cellular)



Dominion Ops & Util Mtg 6.11.pdf

gti.

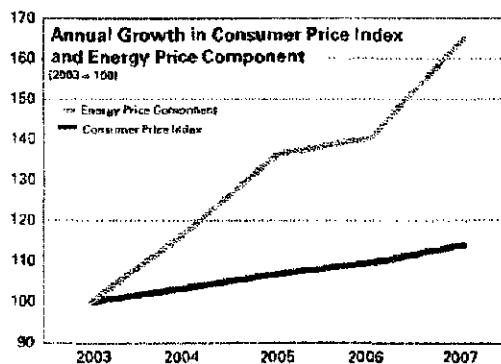
The Energy to Lead



Advancing Clean Energy Technology

2007 Annual Report

Clean energy technology is central to the environmental, economic and social concerns of the global marketplace. Together with our customers and commercial partners, GTI advances innovative clean energy solutions.



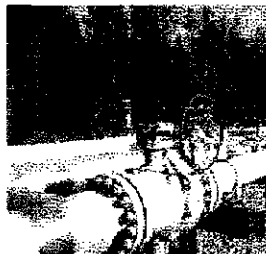
Energy Prices

High energy prices are an increasingly critical factor affecting a multitude of consumer and industry concerns. Current decisions by energy consumers represent long term commitments—to an appliance, to a process or piece of equipment, or to a specific location for a manufacturing plant. All of which have a sustained impact on the energy producer and supplier.



Carbon Management

Increasing awareness and concern towards global climate change is driving sustained and growing investment in clean energy technology. Solutions are sought across all sectors of the energy industry to cost-effectively control carbon dioxide and other emissions impacting environmental quality.




Energy Infrastructure

The energy industry seeks continuous improvement and efficiency in meeting increasing standards and demands for delivery and safety. Building off its strong track record in the delivery of natural gas, the industry is applying new technologies, materials, and approaches to enhance service and deliverability.




Our efforts are addressing energy prices across all segments of the industry.

- > Improving access to supply from unconventional gas resources
- > Broadening the supply portfolio with gasification and renewable resources
- > Reducing infrastructure construction and operations and maintenance (O&M) costs
- > Increasing efficiency and reducing costs for energy utilization equipment



GTI is working on carbon management and environmental solutions across an array of fuel resources.

- > Providing credible analysis and thought leadership through the Carbon Management Information Center
- > Developing clean energy appliances and commercial or industrial equipment that feature low environmental footprints
- > Reducing methane leakage in natural gas systems
- > Commercializing gasification processes that enable capture and control of emissions from our coal resources
- > Converting renewable biomass feedstocks into carbon-neutral energy



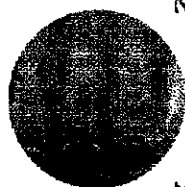
Our programs are closely aligned with industry to address infrastructure needs from product development through deployment.

- > Developing advanced O&M approaches, such as small hole (keyhole) practices for utility operations
- > Delivering a full array of training and education for energy industry employees—from new staff to experienced technicians and engineers
- > Assessing fuel interchangeability issues and approaches to safely integrate a broader variety of resources, such as LNG and biogas, into the U.S. energy supply mix

Letter to Our Stakeholders

Energy has moved to the forefront of issues facing the global economy. High prices, prompted by a tight demand/supply relationship, are amplified by the sharpened focus on climate change. Maintaining a safe and reliable delivery infrastructure is critical to satisfying consumer demands for clean, affordable energy. GTI's work becomes more relevant each day as we seek solutions to the energy challenges of today and the concerns of tomorrow for the natural gas industry and its customers.

Leadership in Clean Energy Technologies



Natural gas can be a big part of the solution to climate change concerns, while serving as a bridge to a clean energy future. Natural gas is the cleanest-burning fossil fuel, producing lower levels of greenhouse gas emissions than coal and oil. The direct use of natural gas in high-efficiency equipment can significantly reduce carbon emissions, and technologies developed at GTI are exploiting this advantage. Longer term, carbon-neutral energy can be derived from "renewable methane" sources such as biomass, landfills and dairy waste that supplement traditional fossil-based resources. And environmentally-friendly ways of using coal will help to ensure adequate energy supplies from this vast domestic resource.

Since 1941, GTI's focus has been to develop technology solutions that provide for reliable, abundant, and affordable energy—delivering results such as high-efficiency, low-emission appliances and increased energy supply derived from plentiful, domestic unconventional natural gas resources. We remain committed to our customer's continued success and delivering high impact technology solutions to market. Technology is the answer—and it's our middle name.

Financial and Business Highlights

Business is strong and growing—GTI achieved a record \$71.4 million in new business contracts, and the past several years have seen a steady growth in revenues, reaching \$52.0 million in 2007. The company's financial position is strong—our unrestricted net assets total \$97.5 million.

> **Increasing supply to meet demand**—Gasification and gas processing projects were major contributors to our new business portfolio. We're expanding our pilot facilities and adding to our technical staff to better serve our growing base of customers looking to bring alternative energy supply solutions to market.

- > **Developing unconventional natural gas**—We're committed to reducing the cost and increasing the availability of unconventional natural gas resources. We provide management support to the Research Partnership to Secure Energy for America (RPSEA), leading field-based research consortia and creating industry-supported technology development programs.
- > **Filling the technology pipeline with innovative solutions**—We executed 14 license agreements during 2007, and GTI received 13 patents from the U.S. Patent and Trademark Office.
- > **Collaborating with industry**—We helped the natural gas industry grow two independent not-for-profit organizations supporting energy research: Operations Technology Development, NFP (OTD) and Utilization Technology Development, NFP (UTD). Along with GTI's Sustaining Membership Program (SMP), these industry-driven programs now include nearly 30 companies and involve over \$12 million in annual funding.
- > **Diversifying our funding base**—Building on our established customer base with federal and state agencies and utilities, our client list continues to grow as private sector firms increasingly turn to us to develop technology solutions.
- > **Focusing on operational excellence**—Our customer satisfaction survey shows continued improvement, reflecting our focus on project execution.
- > **Hiring and retaining the brightest minds to address the global challenges**—Demand for talent remains strong as our business grows. Dozens of new staff members were added to the GTI team in the past year, filling important new leadership and technical roles. They've come to make a difference—by helping to solve some of the most important problems faced by the global economy.

Moving Forward

We see continued expansion of both our business, and our impact, as we channel our efforts toward solving critical global energy issues. We seek to enhance the market impact of GTI's technologies while creating substantial opportunities for our employees. Technology is the answer, and we remain committed to developing technologies that lead to a robust economy, a clean environment and a comfortable way of life for our fellow citizens of this planet. Thank you for your continued support of our important mission.



Mary Jane McCartney
Chair of the Board



David C. Carroll
President and CEO



Advancing Clean Energy Technology

GTI is applying a broad industry perspective in leading technology programs and assessing the best uses of our energy resources. Leveraging technical expertise and a network of partners, we deliver practical solutions to customer needs and bring products to the marketplace.

Efficiency

We are applying market knowledge and state-of-the-art capabilities to develop energy-efficient natural gas and hybrid equipment. Higher-efficiency equipment leads to lower consumption, reduced operating costs and lower greenhouse gas emissions. Compared to electric and oil equipment, natural gas is the least-cost approach for achieving emissions reduction in residential and commercial applications such as space and water heating, appliances, and boilers.

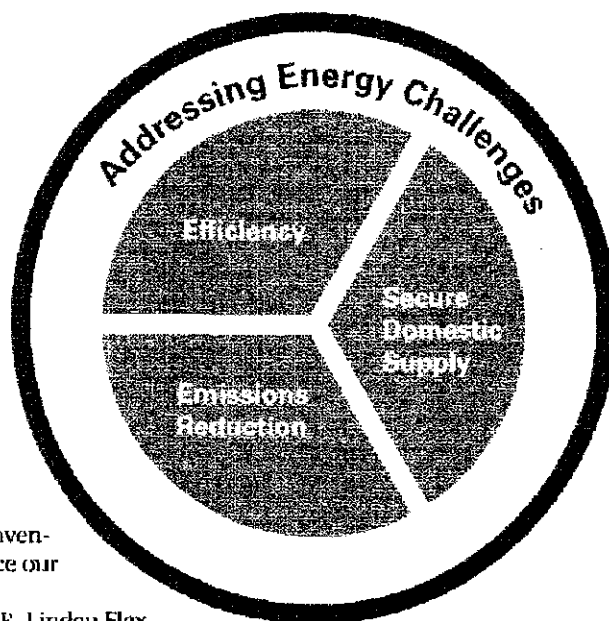
Emissions Reduction

To contribute to a climate change solution, we are developing a broad portfolio of technologies to reduce emissions. We currently own over 65 patents on high-efficiency, low-NO_x burners and systems to control emissions.

Our researchers are exploring ways to reduce methane leakage in natural gas production, processing, transmission, storage, and distribution systems even further.

GTI programs also encompass a broad range of technologies for carbon control, including development and application of solvents and membranes for CO₂ separation from exhaust streams and for natural gas treatment.

A direct solution for controlling greenhouse gas emissions is to capture and store carbon in underground formations. To address the technical, economic and environmental challenges associated with long-term CO₂ storage, we have conducted research on geologic sequestration.



Secure Domestic Supply

GTI is applying specialized expertise in developing unconventional gas resources to enhance our domestic energy portfolio.

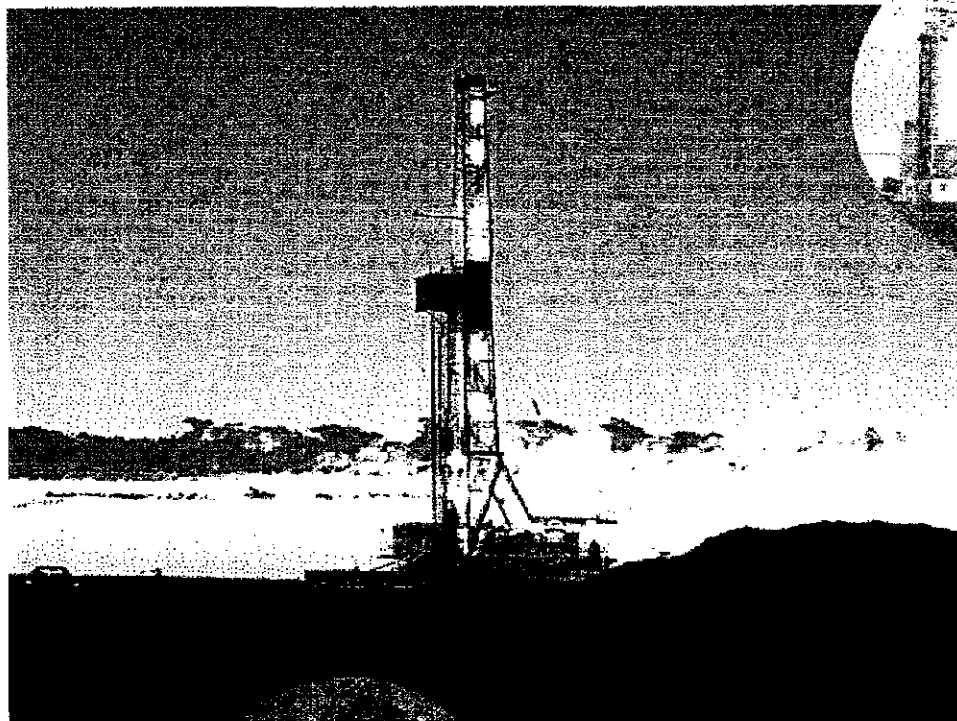
Our state-of-the-art Henry R. Linden Flex-Fuel Test Facility is a versatile platform used to evaluate innovative gasification processes and further the commercialization of advanced technologies. We are committed to finding the most environmentally-friendly ways of using coal, and are working with private industry and government in developing next-generation technology.

Through gasification, biomass waste products such as forest and agricultural residues can also be converted into zero-carbon renewable gas and used to address global warming concerns.

GTI is exploring other options to extend the availability of renewable energy supplies that provide clean alternatives and can be used within the country's existing distribution network. For example, dairy farms, wastewater sludge, and landfills all provide potential sources for producing zero-emission biomethane.

We also have experience in the development and testing of hybrid solutions that can supplement energy from renewable sources such as wind, solar, and bio-fuel with natural gas or propane to provide a cost-effective and reliable alternative with a reduced carbon footprint.

Supply



"GTI provides very strong development and testing capabilities to complement our team and accelerate the technology towards commercialization."

-- Jim Hartung,
Director of
Energy Systems,
Prett & Whitney
Rocketdyne

Maintaining a strong domestic energy supply is a key element driving U.S. economic growth and meeting the projected increases in demand for natural gas. GTI research focuses on providing a secure energy resource base and enhancing the diversity of domestic resources. Through our projects, companies are finding better ways of producing natural gas. GTI's gasification program focuses on converting coal, wastes, and renewable feedstocks into replacement energy sources, and on upgrading subquality gas.

Market Drivers

- > Expand the domestic supply portfolio.
- > Develop technology that allows previously unrecoverable gas to make a significant contribution to the nation's energy supply.
- > Extend the availability of zero-emission renewable energy sources to reduce carbon footprint.

Inside GTI's Flex-Fuel
Test Facility ►

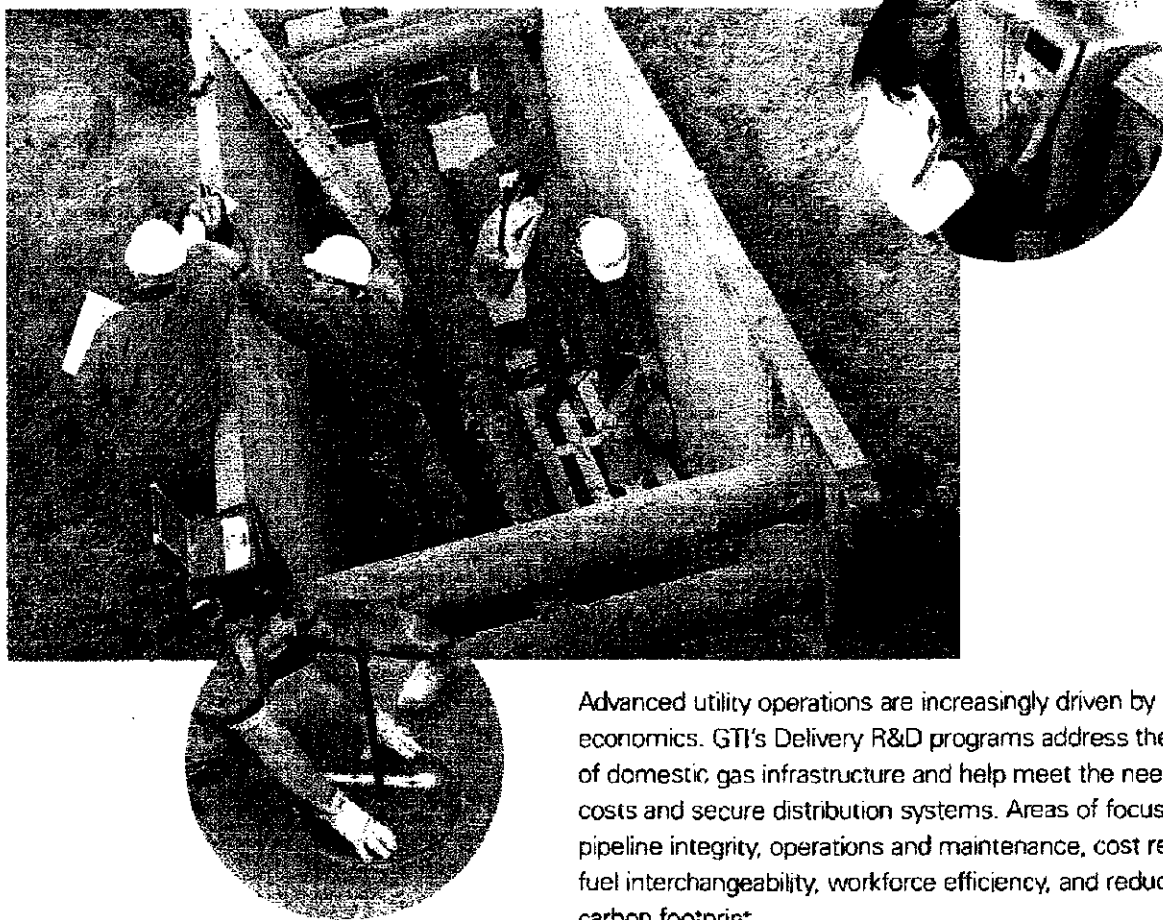




GTI Performance Highlights

- > Under a grant from the state of Illinois, major upgrades to the Henry R. Linden Flex-Fuel Test Facility (FFTF) were initiated. These upgrades will permit operation and testing of gasification processes with an extended range of fuels, under the conditions needed for liquid fuels or chemicals production.
- > GTI signed a significant contract with Pratt & Whitney Rocketdyne to advance coal gasifier technology for fuels, chemicals and power generation applications.
- > A new major biomass-to-liquids program was initiated with Carbona Corporation and global forestry company UPM-Kymmene of Finland to cooperate on the development of technology for biomass gasification and syngas purification.
- > GTI completed over 1200 hours of testing on the GreatPoint Energy bluegas process, a proprietary process for methane production via catalytic gasification.
- > The DOE-funded unconventional gas research program managed by GTI under contract to the Research Partnership to Secure Energy for America (RPSEA) issued its first set of solicitations to develop technology associated with gas shales, tight gas sands and coalbed methane.
- > GTI and 14 member universities, service companies, and producing companies have created a research consortium for the economical development of gas from New Albany Shale in the Illinois Basin.
- > The Barnett Shale Water Conservation and Management Committee, with GTI serving as Managing Director, completed a major report describing current and projected water requirements and prioritized a program plan to substantially reduce water demand from production activities.
- > In 2007, testing was conducted on new down hole drilling motors, steering tools for controlling well direction, drilling bits and drill pipe at GTI Catoosa, our 80-acre drilling test facility located near Tulsa, Oklahoma.

Delivery



Advanced utility operations are increasingly driven by technology and economics. GTI's Delivery R&D programs address the strategic concerns of domestic gas infrastructure and help meet the needs for reasonable costs and secure distribution systems. Areas of focus include safety, pipeline integrity, operations and maintenance, cost reduction, alternative fuel interchangeability, workforce efficiency, and reduction of the utility's carbon footprint.

"I'm pleased with GTI's enthusiasm and ability to listen."

—Mike Swinson,
Director,
Operations Services,
Alabama Gas
Corporation

Market Drivers

- > Local distribution companies (LDCs) are looking for ways to most cost-effectively provide a safe, reliable product and service to their customers.
- > LDCs are faced with ever-increasing concerns and needs for rehabilitation and replacement of aging infrastructure.
- > With the Pipeline and Hazardous Materials Safety Administration's new and proposed rules on pipeline and distribution systems, operators need to know more information about the condition of their facilities than ever before.
- > Evaluating and mitigating the effects of new fuels on delivery infrastructure is a critical element to enable an adequate future supply of energy resources.
- > Determining prudent environmental and carbon reduction strategies is a growing priority among LDCs.

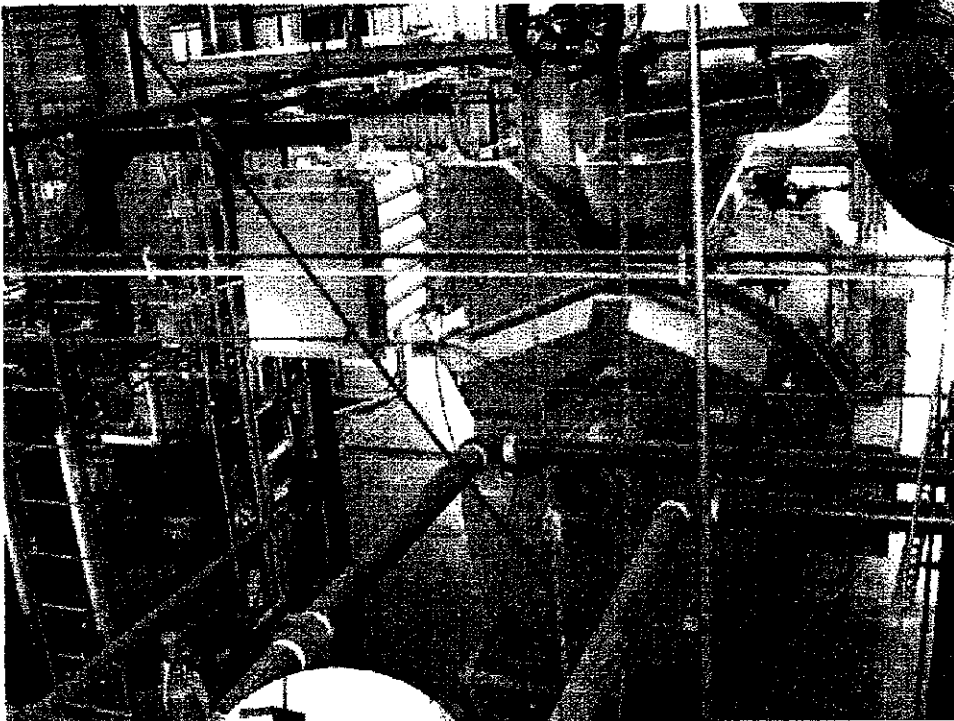
Plastic pipe testing in
GTI's laboratory ►



GTI Performance Highlights

- > GTI is leading a GPS Consortium Program to provide guidance to natural gas and water utility companies regarding the collection, processing and integration of GPS data collected through routine operations.
- > We initiated a project to leverage existing GPS technology to reduce the two leading causes of excavation damage—one-call violations and careless excavation near utility lines.
- > A number of new licensing agreements were executed in 2007 on behalf of GTI or Operations Technology Development, NFP (OTD). Included are the license of the acoustic pipe locator with Metrotech and the HPL 180 High Pressure Cured in Place lining technology.
- > Under Phase III of a project for NYSEARCH on alternate natural gas supply interchangeability issues, GTI is performing full-scale testing of typical infrastructure components to determine the effect of gas composition variations on materials.
- > We initiated a comprehensive biogas program, with the initial scope focusing on sampling from digesters, analyzing gas composition, and establishing a National Guidance Document for pipeline quality biogas from dairy operations. Subsequent work will include efforts with additional methane sources such as landfills, wastewater sludge, and agricultural waste.
- > Our research continues to help pipeline operators assess their systems while maintaining compliance with federal and state regulations. A new initiative for 2007 was the formation of a North American Casing Research Program that brings operators, advocacy organizations, other researchers, and regulators together to find solutions for mandatory cased pipe inspections.

End Use Solutions



Energy efficiency is a direct means to save consumers money, reduce energy consumption, and lower greenhouse gas emissions. GTI programs in end use are targeted at efficiency and emission improvements for residential, commercial, industrial, power generation and transportation market sector customers.

Market Drivers

- > There is a need to reduce energy intensity and consumption through energy efficiency.
- > Reduced product and installation costs provide life-cycle benefits to gas customers.
- > Increasing use of renewable and sustainable energy sources will lead to a smaller carbon footprint and expanded domestic supplies.

"The Gas Technology Institute is a leader in developing technology that will help us lessen our dependence on foreign sources of energy and keep our environment healthy for future generations."

—Congressman
Peter J. Roskam
(R-IL)

Prototype of the submerged combustion melter in operation at GTI's laboratory ►



GTI Performance Highlights

- > GTI launched a Carbon Management Information Center (CMIC) to help address issues and opportunities in carbon emission controls, and provide information and tools to help build awareness that natural gas is a key element of the carbon solution.
- > With the U.S. Department of Energy (DOE), Utilization Technology Development, NFP (UTD), and other sponsors, GTI continued development and deployment of the high-efficiency Super Boiler technology. The initial field installation in Alabama showed 94% efficiency and favorable energy and water savings; a second site was launched in California with an ultra-low NO_x burner system.
- > Commercial deployment of the GTI-developed submerged combustion melter (SCM) technology is moving forward with a new plant under construction for production of abrasive materials and with a leading producer of sodium silicate.
- > With California Energy Commission (CEC) funding, GTI is working with Cummins Inc. to develop a next-generation high-efficiency natural gas engine for stationary power generation.
- > With UTD support, GTI is investigating solar thermal-natural gas hybrid technologies for hot water/steam generation and thermal-driven gas cooling to lower energy costs and carbon emissions.
- > We are partnering with Waste Management Inc. and Linde to demonstrate a liquefaction technology to convert renewable biomethane from a landfill to liquefied natural gas (LNG) for vehicle use.
- > GTI completed installation of a natural gas-to-hydrogen fueling station at its headquarters in Des Plaines, IL. With Texas Commission on Environmental Quality funding, GTI is working with the University of Texas at Austin to demonstrate hydrogen infrastructure and a hybrid hydrogen fuel cell electric shuttle bus.

Education and Training



GTI offers training programs in gas distribution and transmission, energy marketing, and LNG to energy professionals and field personnel in the U.S. and around the world. Training options include classroom courses, on-site programs, and self-study courses on CD and online. GTI also offers training materials that companies can use to conduct in-house courses.

Market Drivers

- > The gas industry, particularly in the U.S., is facing a shortage of trained employees as large numbers of workers begin to retire.
- > Energy companies are seeking high-quality standardized training at reasonable cost.
- > With regulators requiring proof of training in Operator Qualification, utilities and industry-related companies are looking for a standardized performance-based program with a testing protocol.

"All the instructors were professional, prepared, and committed to our education. They brought a wealth of experience and real world examples, which made understanding the concepts and applications easy."

— Greg deKramer, Washington Gas
Participant in onsite Gas Distribution
Operations training, December 2007

GTI Performance Highlights

- > To address workforce issues for the gas industry, GTI launched a new training and certification program for field technicians, Certified Operations Technician (COT). The modular program comprises a core course and electives in gas distribution and transmission operations. The standardized array of topics (130 training modules) can be customized for onsite training programs.
- > Over 30 courses were delivered in our classroom or at domestic and international companies in 2007. Topics covered gas distribution operations and engineering, energy marketing, and LNG.
- > GTI completed development of a four-week training program in English and Spanish for the operators of an LNG receiving terminal and developed a 15-course e-learning LNG operator training program for another facility.
- > A growing number of gas industry customers purchased site licenses for an array of GTI online or CD-based courses in subjects such as gas industry introduction, gas operations, and LNG training.

GTI Has the Expertise and Facilities to Address Your Challenges

Supply

- > Unconventional Natural Gas
- > Field Drilling and Completion
- > Downhole Laser Energy Applications
- > Carbon Sequestration
- > Methane Hydrate Resources
- > Gasification Feedstock Evaluation
- > Syngas Generation and Processing for Production of Power, Fuels, and Chemicals
- > Syngas Cleanup and Separation Technologies
- > Subquality Gas Upgrading

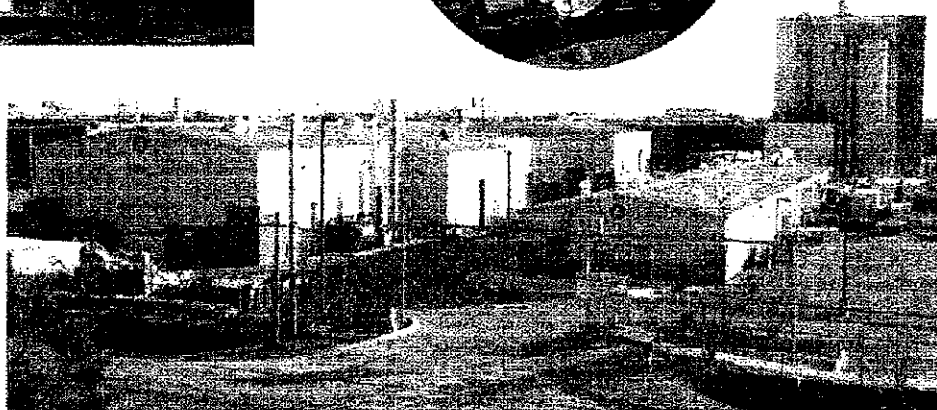
Delivery

- > Third Party Damage Prevention and Leak Detection
- > Construction Innovations
- > Operations Innovations
- > Pipeline Integrity/Distribution Integrity Management
- > Pipeline and Storage Solutions
- > Forensic, Environmental and Chemical Research Services

GTI's main facility is located on an 18-acre campus near Chicago, Illinois. We have over 200,000 square feet of laboratory space, with 28 specialized laboratories and facilities.

End Use Solutions

- > Combustion
- > Industrial Process Heating
- > Power Generation and Combined Heat and Power
- > Residential and Commercial Appliances
- > Hydrogen and Alternative Fueling Stations and Vehicle Integration
- > High- and Low-Temperature Fuel Cell Components and Systems
- > Energy Conversion, Fuel Processors and Catalysts
- > Codes and Standards
- > LNG and Fuel Gas Interchangeability
- > Energy System Modeling and Analysis

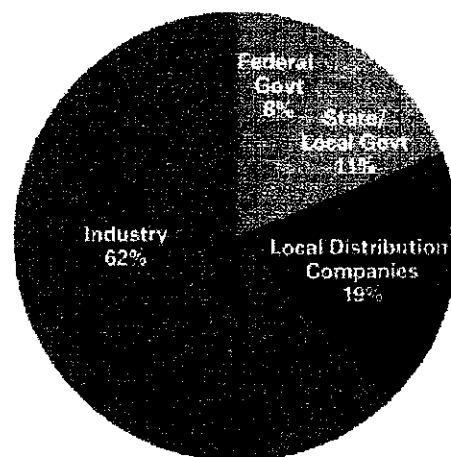


Financial and Business Highlights

Financial Overview (as of 12/31/07)

	(in millions)
New Business Contracts	\$71.4
Project Revenue	\$48.2
Royalty and Other Revenue	\$3.8
Total Revenue	<u>\$52.0</u>
Current Assets	\$52.2
Current Liabilities	\$22.0
Net Current Assets	<u>\$30.2</u>
Total Assets	\$125.8
Total Liabilities	\$28.3
Net Assets—Unrestricted	<u>\$97.5</u>

2007 Business Contracts by Customer Segment



GTI Staff

- > Approximately 250 employees
- > 70% scientists and engineers
- > 45% with advanced degrees

13 Patents Issued in 2007

18 Patent Applications in 2007

GTI Management

Mr. David C. Carroll
*President and
Chief Executive Officer*

Mr. Hamid Abbasi
*Executive Director, Exploration
& Production Technology
Development Programs*

Mr. Vann Bush
*Managing Director,
Supply-Gasification Sector*

Mr. Paul G. Chromek
General Counsel & Secretary

Mr. Christopher D. Herrman
Director of Finance

Mr. Edward B. Johnston
Managing Director, Delivery Sector

Mr. Daniel S. LeFevers
*Executive Director,
Washington Operations*

Mr. Guy E. Lewis
*Managing Director,
Exploration & Production Sector*

Dr. John J. Lewnard
*Vice President and
Chief Technology Officer*

Mr. William E. Liss
*Managing Director,
End Use Solutions Sector*

Mr. Kent F. Perry
*Executive Director,
Exploration & Production
Research*

Mr. Rodney C. Rinholm
*Executive Director, Business
Development and Education*

Mr. Ronald N. Snedic
*Vice President,
Corporate Development*

Mrs. Barbara E. Weber
Executive Director, Human Resources

Mr. Kenneth L. Wicherek
*Vice President of Finance, Treasurer
and Chief Financial Officer*

GTI Board of Directors

Mr. Philip C. Ackerman
*Chairman
National Fuel Gas Company*

Mr. Randall L. Barnard
*(Vice Chair, GTI Board)
Senior Vice President,
Operations & Technical Services
Williams Gas Pipeline*

Mr. Robert W. Best
*Chairman, President and CEO
Atmos Energy Corporation*

Mr. David C. Carroll
*(Ex Officio Director)
President and CEO
GTI*

Mr. Arthur Corbin
*President and CEO
Municipal Gas Authority of Georgia*

Mr. Charles D. Davidson
*Chairman, President and CEO
Noble Energy, Inc.*

Mr. Robert J. Fani
(retired from KeySpan Corporation)

Mr. Terry D. McCallister
*President and COO
WGL Holdings, Inc. and
Washington Gas Light*

Ms. Mary Jane McCartney
*(Chair, GTI Board)
Senior Vice President,
Gas Operations
Consolidated Edison Company
of New York, Inc.*

Mr. James T. McManus, II
*Chairman, CEO & President
Energen Corporation*

Ms. Rebecca Ranich
*Director, Energy & Resources Industry
Deloitte Consulting, LLP*

Mr. John W. Somerhalder II
*Chairman, President and CEO
AGL Resources Inc.*

Mr. Lee M. Stewart
*Senior Vice President,
Gas Operations
San Diego Gas & Electric and
Southern California Gas Company*

Mr. John M. Stinson III
*Principal
John M. Stinson Company*

Ms. Lori Traweck
*Senior Vice President,
Operations and Engineering
American Gas Association*

(as of May 1, 2008)

Caring About the Environment and Our Community



In addition to the environmentally-driven efforts central within our projects, GTI is committed to being a good steward of our environment, and to use energy prudently in our own activities.

- > In 2007, we installed a green roof on our headquarters building as part of a new initiative to reduce our carbon footprint.
- > Other actions we're undertaking include energy-efficiency driven building shell improvements and reduced HVAC loads. We're also investigating opportunities for carpooling and public transit.

Being a good corporate citizen means giving back to the local community.

- > Through an annual payroll deduction campaign, GTI supports the United Way's efforts to help those in need.
- > We have shared our management expertise with the United Way through their Loaned Executive program.
- > Several times a year, we sponsor a Life Source blood drive in our offices.

GTI invited customers and business partners from Chicago and beyond to tour our facilities at an open house last spring.

- > In addition to building upon existing relationships, this provided an opportunity for networking with suppliers and vendors in the local community.



Gas Technology Institute

Headquarters

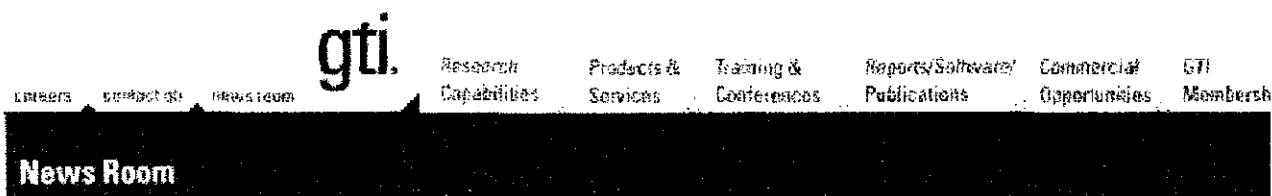
1700 South Mount Prospect Road
Des Plaines, Illinois 60018-1804
847/768-0500

Washington Operations

655 15th Street, N.W., Suite 420
Washington, DC 20005
202/661-8650

www.gastechnology.org

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Introduction to Gas Technology Institute

- > What is GTI?
- > Where is GTI located?
- > What services and products does GTI provide?
- > What capabilities does GTI offer for technology development?
- > What unique facilities does GTI make available to customers?
- > What are GTI's sources of revenue?
- > How do the gas industry and gas customers help to shape the GTI program?
- > Who are the members of GTI's senior management team?
- > What are some of the major accomplishments of GTI?
- > What education and training resources are available from GTI?
- > What information resources are available from GTI?
- > Who can I contact for more information about GTI and its programs?

What is GTI?

Gas Technology Institute (GTI) is the leading research, development and training organization serving energy markets. GTI is meeting the nation's energy and environmental challenges by developing solutions for consumers, industry, and government. GTI works with its customers to find, produce, move, store and use natural gas. Together, we develop 21st-century, technology-based solutions that are reliable, affordable, safe and clean. Customers include energy industry companies, equipment manufacturers, government agencies, and other organizations.

GTI is an independent technology organization, established as an Illinois not-for-profit corporation. GTI is tax-exempt under Section 501(c)(3) of the Internal Revenue Code.

Where is GTI located?

GTI's headquarters facility is located on an 18-acre campus at 1700 South Mount Prospect Road, in the Chicago suburb of Des Plaines, IL. GTI also operates the following offices and facilities:

- > GTI Washington Operations Office
- > GTI Catoosa Test Facility (near Tuisa, Oklahoma)
- > Houston Office in Sugar Land, TX
- > Process Research and Evaluation Group in Birmingham, AL for gasification research

What services and products does GTI provide?

GTI provides products, services and information that help customers solve problems or capitalize on opportunities related to finding, producing, delivering and using natural gas. More specifically, GTI:

- > Performs contract research, development and demonstration projects (field and laboratory)
 - > Provides technical services in areas related to energy and the environment
 - > Commercializes new energy-related technology, directly and through subsidiaries
 - > Plans and manages technology development programs for the gas industry and other clients
 - > Aggregates funding for collaborative R&D programs of interest to individual companies, consortia, and government agencies
 - > Provides education and training on technical and business topics related to energy and natural gas.
- (See "Who can I contact..." to request details).

What capabilities does GTI offer for technology development?

The GTI staff includes more than 175 highly trained scientists and engineers as well as other professionals skilled in program planning, project management, and training.

GTI's *Research and Deployment Division* offers expertise in four major areas:

- > Gas Supply (including technology for: finding, assessing and producing unconventional gas resources and hydrates; gas processing; and liquefied natural gas delivery and use)
- > Gas Pipeline Systems (including nondestructive evaluation, right-of-way monitoring, infrastructure surety, and corrosion control)
- > Gas Distribution Systems (including no-dig technologies, innovative excavation and restoration systems, leak detection, pipe maintenance, and pipe location).
- > Gas Utilization Efficiency and Environmental Issues (including product development (e.g., appliances, boilers, furnaces, cooling systems, distributed power generation systems, and vehicle-related technologies), sensors/controls, burners/combustors, emissions reduction, soil/water clean-up, hydrogen production/use, and fuel cell systems).

What unique facilities does GTI make available to customers?

GTI has established several specialized facilities for focused technology development.

Several key laboratories are noted below. (All are in Des Plaines, IL, unless otherwise noted).

For more detailed information, visit GTI's individual **Research Centers**.

- > Gas Operations Laboratories: Piping, electronics, corrosion, coatings, soils/pavement, calibration gases, failure analysis, materials testing.
Contact: Edward Johnston, 847-768-0889
- > GTI Catoosa Test Facility, Inc. (Catoosa, OK): Gas-well technology evaluation.
Contact: Scott Randolph or Ron Bray, Toll-free 1-877-477-1910
- > Industrial Combustion Laboratory: Clean and efficient burners and thermal systems development. Contact: Steve Sikirica, 847-768-0859
- > Residential/Commercial Appliances Laboratory: Gas-fueled appliances for homes and businesses. Contact: Tim Cole, 847-768-0854
- > Gas Hydrates Research Facilities: Study of hydrates as a resource and from a flow-assurance viewpoint. Contact: Iraj Salehi, 847-768-0902
- > Flex-Fuel Gasification Test Facility: Gasification of coal, biomass.
Contact: Bruce Bryan, 847-768-0591
- > Laser Laboratory: Laser use for well construction, completion, or other gas industry applications. Contact: Iraj Salehi, 847-768-0902

What are GTI's sources of revenue?

GTI revenues come from several sources:

- > Contracts from customers for research, program management, technical services, technology development and education programs
- > Royalty and license fees from GTI technologies incorporated into commercial products/services
- > The Sustaining Membership Program (SMP), by which its investors support collaborative, mid-term technology development
- > Returns from the activities of GTI's subsidiaries and other technology investments.

How do the gas industry and gas consumers help to shape the GTI program?

GTI is guided by a Board of Directors with 14 members representing the natural gas industry and consumer interests. The CEO of GTI is also a member of the Board.

Input is solicited from the Public Interest Advisory Council (PIAC). The PIAC provides public and gas consumer interest guidance to GTI and its Board. The PIAC is made up of public utility commissioners, consumer advocates, and environmental, economic, and university-based experts.

In addition, member companies and other partners provide technical guidance to GTI on program content and priorities. GTI also formally surveys its research customers regularly. This satisfaction survey helps to ensure that GTI's products and services meet customer needs and identifies areas for performance improvement.

Who are the members of GTI's senior management team?

The President and CEO is David C. Carroll.

The Vice President of Corporate Development is Ronald Snedec.

The Vice President and Chief Technology Officer of the Office of Technology and Innovation is

Jack Lewnard.

The Vice President of Finance, Treasurer, and CFO is Ken Wicherek.

The General Counsel and Secretary is Paul Chromek.

The Executive Director of Administration is Barbara Weber.

The Executive Director of Washington Operations is Daniel LeFevers.

The Managing Director of Supply—Exploration & Production is Guy Lewis.

The Managing Director of Supply—Gasification is Vann Bush.

The Managing Director of Delivery is Edward Johnston.

The Managing Director of End Use Solutions is Bill Liss.

What are some of the major accomplishments of GTI?

More than 1000 patents and nearly 500 products have resulted from GTI-led technology developments. Representative technology developments that have had major market impact include the following:

Gas Supply

- > Hydraulic fracture mapping through use of microseisms (FracseisSM)
- > Diagnostic tools and technologies to exploit coal gas, shale gas, and low-permeability formations
- > Non-aqueous sulfur removal process for direct and tail-gas treatment (CrystaSulfSM)
- > Freeze/thaw evaporation process for treating produced waters (FTE[®] Process)
- > Crosswell seismic imaging systems for more detailed views of subsurface formations
- > Processes for gasification of coal (U-GAS[®]) and biomass (RENUGAS[®])
- > Solvent to remove acid gases from raw natural gas (MorphySorb[®])

Gas Distribution

- > Plastic pipe performance testing, installation guides, field-failure catalog
- > Steerable, horizontal ground-piercing device (Guided Mole)
- > Software for planning guided-boring operations (DrillPath[®])
- > Optical methane detector for rapid, vehicle-based leak surveys (OMD[®])
- > Automated district pressure regulator (GridBossSM)
- > Systems for renewing gas service lines (RENU[®]; starline[®])
- > Gas storage-field damage prevention and remediation tools (DamageExpert[®])
- > Tools to detect microbiological corrosion in piping systems

Gas Transmission

- > Low-cost retrofit NO_x controls/combustors for piston and turbine engines that drive gas compressors
- > Composite pipeline repair material (ClockSpring[®])
- > Ultrasonic and electromagnetic/ acoustic systems for in-line detection of stress-corrosion cracking
- > Ultrasonic meter performance and calibration standards
- > Methods for evaluating lost and unaccounted-for gas
- > Improved magnetic-flux-leakage tool for in-line pipeline inspection
- > Pipeline risk-management tools and models

Environmental

- > Guidebook for remediation and management of former MGP sites
- > Chemical-biological treatments for contaminated soil (MGP-REM; PCB-REM)
- > Guidebook to determine environmentally acceptable end-points for soil remediation
- > Instrument for direct measurement of fugitive-emission leak rates (Hi-Flow[™] Sampler)
- > Tools to estimate/analyze emissions from a range of gas-industry operations (GHGCalc[®], GRI-HAPCalc[®], GRI-GLYCalc[®])
- > Guidelines on pipeline routing through wetlands to minimize impact

Gas Use

- > Residential furnaces using modulation and pulse combustion for high efficiency

- > Venting and installation guidelines for residential and commercial gas equipment
- > Method to evaluate gas water heater designs to reduce accidental ignition of flammable vapors
- > Engine-driven and absorption chillers for space cooling, refrigeration
- > Software to assess energy-equipment economics and applications (Dest-Calc[®], kitchenCost[™], Gas Cooling Guide, BinMaker)
- > Advanced commercial food service equipment (AutoFry[™], Steam Combination Oven, Steam Cooker)
- > Process for burning gas with coal, biomass, or solid wastes to reduce emissions (METHANE de-NOX[®])
- > Emission control technique for glass melters and other industrial furnaces (Oxygen-Enriched Air Staging)
- > Industrial burners using innovative methods (e.g., oscillating or cyclonic combustion, forced internal flue-gas recirculation) to cut emissions and increase heat transfer
- > Application guidelines for high-performance infrared burners
- > Industrial furnaces for glass tempering and heat-treating
- > Software to evaluate the benefits of distributed power generation systems (D-Gen Pro[™])
- > Engines and other components for natural gas vehicles and fueling systems

What education and training resources are available from GTI?

GTI helps strengthen the gas industry through its education and training programs. Both seasoned and new gas-industry professionals can learn about technologies, operations, and related business topics. Educational options include the following:

- > eLearning through the Internet
- > Open-enrollment classroom courses
- > Onsite, tailored courses at a client's facility
- > CD-ROM and print self-study materials
- > Training modules for a client's intranet.

See 'Who can I contact...' for information about these education and training resources.

What information resources are available from GTI?

An excellent starting point is this GTI web site. It contains thousands of pages of authoritative technical documents as well as information about GTI's structure, products, and services. GTI also produces three publications:

- > *Gas Operations News*, a newsletter that provides information related to GTI's Distribution & Pipeline Technology developments, services, and research opportunities
- > *End-Use Solutions*, a newsletter that provides information on technology developments, services, and research opportunities for residential, commercial, industrial and power generation markets.
- > *Education eNews*, a monthly update on GTI's classroom courses, online courses, and new certification programs.
- > *GasTIPS*, a quarterly magazine highlighting E&P-related research.

GTI's Technical Information Center houses one of the world's leading gas technology libraries and an extensive historical database of gas-related information. See 'Who can I contact...' for information on how to access these resources.

Who can I contact for more information about GTI and its programs?

GTI Headquarters

1700 S. Mount Prospect Road
Des Plaines, IL 60018-1804
Phone: 847-768-0500; FAX: 847-768-0501
Corporate e-mail: publicrelations@gastechnology.org

Technical Programs and Services

Research and Deployment
E-mail: vp_rd@gastechnology.org

Education Group
Rod Rinholm
847-768-0868

E-mail: education@gastechnology.org

Commercialization and Investment

E-mail: commercialization@gastechnology.org

Sustaining Membership Program (SMP)

and other Collaborative Programs

Ron Snedic, Vice President, Business Development

847-768-0572

E-mail: ron.snedic@gastechnology.org

Other Contacts

General Information and Media Contact

E-mail: publicrelations@gastechnology.org

GTI Membership, Proposals, and Partnering

Rod Rinkholm, Director

847-768-0868

E-mail: membership@gastechnology.org

GTI Washington Office

Daniel LeFevers, Executive Director, Washington Operations

1350 "I" Street N.W., Suite 510

Washington, DC 20005

202-747-0513

E-mail: washingtonops@gastechnology.org

State Regulatory Funding Initiatives

Ron Edelstein, Director, Regulatory Affairs

847-768-0898

E-mail: businessdevelopmentinfo@gastechnology.org

Technical Information Center (Library)

Carol Worster, Supervisor

847-768-0664

E-mail: publications@gastechnology.org

Reports and Other Documents

Here on the GTI website, you can use the "Search" function to find and purchase a wide range of GTI documents. Another resource for older (pre-1990) GTI documents is the Technical Information Center (see contact information above).



Brian D.
Witte/Cleveland/EG/CN
G

01/23/2008 12:54 PM

To Vicki H Friscic/HQ/EG/CNG@VANCPOWER
cc Eric S Hall/Cleveland/EG/CNG@VANCPOWER
bcc

Subject GTI Funding - OTD Fee Explanation

Vicki -

Ron Edelstein of GTI returned my call to answer the question as to how the \$0.50 per customer annual charge was established for membership to the OTD program.

- He informed me in the past GTI was funded by a FERC order that was assessed at a rate of \$0.0147 per MCF of a companies annual throughput. This covered research and development projects for all phases of the natural gas business from transmission and distribution to customer service operations. The FERC order granting this funding mechanism expired a couple of years ago which immediately prompted GTI to explore other possible means of acquiring funding for its programs. In response to this challenge they came up with the OTD and UTD programs. Each of these programs have specific objectives relating to operations or utilization technology and gives prospective companies the option to join the program that best meets their needs and budget.

The OTD program has a Board of Directors that evaluates its operation and sets its funding rate. After review the scope and objectives of projects associated with the OTD program the OTD Board of Directors felt a \$0.50 per customer annual charge could adequately fund their annual needs. They realized the past \$0.0147 per MCF of annual throughput was an all encompassing funding mechanism that covered all phases of the natural gas industry and the OTD was a subset of this funding. Based on the funding of the old FERC program compared to the new OTD program, the \$0.50 per customer charge compared to the \$0.0147 per MCF charge relates to roughly 1/3 of the old charge by their calculations. With this amount of funding they feel they can meet the objectives of the OTD and at the same time have a very minimal impact of the rate payer.

Hopefully this explains their *rational* for the fee they have established. Ron Edelstein offered his cell phone (847) 312-0799 if we would like to speak with him further.

Please let me know if I can be of any further assistance,

Brian

Don Edelstein - GTI

1/23/08

{ Supply research
Operations research $\leftarrow \frac{1}{3}$ of old FERC charge
End use research

#1.50/meter per year
~~1.94¢~~ x avg load
MMBTU

{ Avg load in PA 80 mil BTU .
x $\frac{1.74¢}{\$1.50}$ FERC charge used to
be .

Commensurate w/ what East Ohio
was putting into program for operations

Program has been around about 4 yrs .

#600,000 will enable DEO to fund
12-20 projects with these funds .

Commissions in 22 different states have
approved .

Don Mason is on Public Interest
Advisory Committee of GTI

GTI reports to subcommittee of NARUC that
Thom Pearce is on .

Sollman, Ibrahim

From: Vicki.H.Friscic@dom.com
Sent: Monday, January 07, 2008 5:15 PM
To: Sollman, Ibrahim
Cc: Jeff.Murphy@dom.com
Subject: Fw: GTI Funding - Rate Case Question

Attachments: pic20055.jpg; pic20328.jpg



pic20055.jpg (29 KB)



pic20328.jpg (34 KB)

Abe, in response to the question you asked on January 4th regarding how the GTI funding amount was determined, please see the email below.

Vicki Friscic
 Manager Regulatory & Pricing
 Dominion East Ohio
 (216) 736-5322
 Tie Line 8-650-5322

----- Forwarded by Vicki H Friscic/HQ/EG/CNG on 01/07/2008 05:11 PM -----

Brian D.
 Witte/Cleveland/E
 G/CNG

01/07/2008 04:03
 PM

Eric S
 Hall/Cleveland/EG/CNG@VANCPOWER

To
 cc
 Vicki H Friscic/HQ/EG/CNG@VANCPOWER
 Subject

Re: GTI Funding - Rate Case
 Question(Document link: Vicki H
 Friscic)

Eric -

The funding formula is based per customer on an annual basis. For Dominion East Ohio to sponsor the OTD program it was calculated at $\$0.50 \times 1.2$ million customers = \$600,000.

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(Embedded image moved to file: pic20328.jpg)



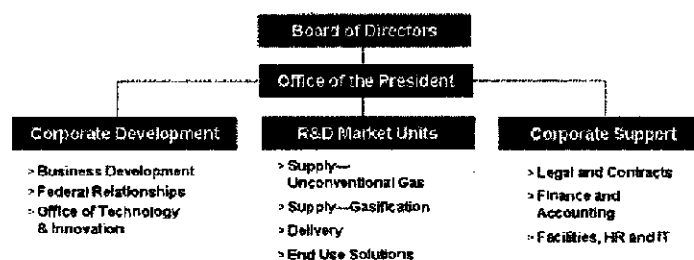
Gas Technology Institute Background and Capabilities

GTI is the leader in the development and deployment of technology solutions that contribute to a secure, abundant, and affordable energy future. GTI provides economic value to the energy industry and its customers, while helping the government achieve its policy objectives. The organization's primary goal is to enhance the safe, reliable, and environmentally responsible production, distribution, and use of natural gas. More specifically, GTI:

- Performs contract research, development and demonstration projects
- Plans and manages technology development programs for the gas industry and other energy clients
- Provides education and training on technical and business topics related to energy
- Manages the commercialization of new, energy-related technology through a variety of business arrangements

Organization and Structure

GTI is a not-for-profit Research & Development (R&D) organization with national scope. Most of the nearly 250-person GTI staff is based at GTI's headquarters in Des Plaines, Illinois. Over 70% of our personnel are highly trained engineers and scientists.



GTI's R&D Market Units are focused on addressing key issues impacting the North American natural gas and energy markets in areas related to energy supply, delivery, and use. The Office of Technology and Innovation helps to position the organization as a technology solutions leader, staying abreast of energy technologies, issues, and opportunities.

GTI provides programs and services (contract R&D, collaborative R&D, technical services, and education programs) to industry, government and consortia that seek competitive advantages through the development and implementation of technology. GTI programs help organizations outsource and leverage technology investments. The natural gas industry is at the core of GTI's customer base. Other major customers are typically within the broader energy industry and other utilities, government agencies, and private industry with interests in energy and the environment.

GTI R&D Market Units

Supply—Unconventional Gas Sector

Kent Perry, Managing Director 847/768-0961

GTI's Supply Sector seeks to provide a secure, stable, and competitive domestic energy supply. Through projects within the Unconventional Gas Sector, companies are finding better ways of exploring for and producing natural gas.

GTI Expertise:

- Unconventional Natural Gas
- Field Drilling and Completion
- Downhole Laser Energy Applications
- Carbon Sequestration
- Methane Hydrate Resources



Supply—Gasification Sector

Vann Bush, Managing Director 847/768-0973

Gasification provides an increasingly viable alternative for large scale power production that leaves premium fuel for the burnertip and reduces the demand for natural gas, easing price pressure and reducing volatility. GTI has recently built a one-of-a-kind platform to test and develop advanced gasification, gas cleanup, and gas-to-liquid technologies. The Henry R. Linden Flex-Fuel Test Facility for Thermo-Chemical Conversion of Fuels is available for research and testing purposes.

GTI Expertise:

- Gasification Feedstock Evaluation
- Syngas Generation and Processing for Production of Power, Fuels, and Chemicals
- Syngas Cleanup and Separation Technologies
- Subquality Gas Upgrading



Delivery Sector

Edward Johnston, Managing Director 847/768-0889

The Delivery Sector addresses the strategic concerns of domestic gas transmission and distribution infrastructure. Areas of focus include safety, pipeline integrity, cost reduction, and efficiency. GTI has a Technology Deployment and Implementation (TDI) Program aimed at the "last mile of research". It comprehensively addresses the needs of utilities in implementing new technologies, and emphasizes field trials, prototype evaluation, and the resolution of implementation barriers.

GTI Expertise:

- Third Party Damage Prevention and Leak Detection
- Construction Innovations
- Operations Innovations
- Pipeline Integrity/Distribution Integrity Management
- Pipeline and Storage Solutions
- Forensic, Environmental and Chemical Research Services



End Use Solutions Sector

William Liss, Managing Director 847/768-0753

The End Use Solutions Sector seeks to improve natural gas and energy use in residential, commercial, industrial, power generation and transportation markets. GTI's emphasis is on new technologies that improve efficiency, expand the natural gas product portfolio, increase the competitiveness of U.S. industry, and minimize environmental impact. GTI's program encompasses early stage research and innovation, technology development, deployment and commercialization support services, and technical market analysis.

GTI Expertise:

- Combustion
- Industrial Process Heating
- Power Generation and Combined Heat and Power
- Residential/Commercial Appliances
- Hydrogen and Alternative Fuel Storage, Fueling Stations, and Vehicle Integration
- High-Temperature and Low-Temperature Fuel Cell Components and Systems
- Energy Conversion, Fuel Processors and Catalysts
- Codes and Standards
- LNG Interchangeability



GTI Facilities



GTI is located on an 18-acre site near O'Hare International Airport, in the Chicago suburb of Des Plaines, Illinois. About half of GTI's 280,000-square-foot headquarters building is dedicated to modern laboratory and research facilities, including a wide range of specialized equipment for design, testing and analysis. Offices, training facilities and an extensive library occupy the remainder. Twenty-eight specialized laboratory facilities on the GTI campus are used to develop and test advanced energy technologies.

Technology Transfer

Just as important as GTI's ability to develop innovative technology is its ability to help bring that technology to the marketplace through field tests, prototype evaluations, and early-market deployment programs in partnership with our clients and manufacturers. To date, GTI RD&D programs have resulted in nearly 500 products, 250 licenses and more than 1,000 associated patents. GTI has over 65 years of experience working with technology developers and users to maximize R&D benefits and define a clear path to commercialization. GTI strives to create and conduct technology programs with the maximum ratio of benefits to R&D costs. Conservative evaluations of GTI's R&D results have consistently shown a gas consumer benefit-to-cost ratio of approximately 8 to 1.

GTI's past research efforts have resulted in major contributions to the energy industry and its customers.

- GTI is a proven leader in adding resources to the U.S. energy portfolio. GTI's work in unconventional resources, such as coalbed methane, has helped extend the availability of cost-competitive gas supplies.
- GTI has a long history of developing gas distribution technologies that maintain a safe and economic gas distribution network. Directional drilling, which minimizes excavations and public inconvenience associated with gas infrastructure operations, includes GTI technology in nearly every system on the market.
- For almost 25 years, GTI has played a major role in the development of advanced high-efficiency, low-emission gas-fired equipment. For example, products developed at GTI in recent years for the high value commercial food service market include the Piteco Fryer, Stellar Sirius Countertop Boilerless Steamer, Avanteec Cross Flow and Dual Conveyor Ovens, and MagiKitch'n Charbroiler, among others.
- Over 65 patents on high-efficiency, low-NO_x burners and systems to control emissions establish GTI as a proven technology developer that is making significant contributions to the strong market position of gas in the industrial sector.

Energy Industry Partnerships

GTI collaborates with various energy industry partners to achieve successful technology results. Collaborative efforts are necessary to bring together entities with the combined technical, facilities and funding required to accomplish technology excellence. We have strong contacts and working relationships with a variety of energy industry players that can enhance technology program results and leverage program funding. Some of our teaming partners have included:

- Over 175 Member Companies
- Industry Associations
- Natural Gas Utilities
- Electric and Other Utilities
- National Laboratories
- U.S. Department of Energy
- U.S. Department of Defense
- U.S. Department of Transportation
- State Energy Offices
- Industrial Gas Consumers
- Technology Developers
- Equipment Manufacturers
- Universities and Other Research Organizations
- Private Equity/Venture Capital Firms

Collaborative Programs

GTI excels at collaborative technology program development and implementation. Such programs allow participants to pool financial resources and collectively identify significant technical challenges and business opportunities, thereby reducing risk and achieving maximum impact with research funds.

GTI has helped the natural gas industry further several collaborative mechanisms for supporting needed research. Two independent not-for-profit companies were formed—Operations Technology Development, NFP (OTD), focusing on issues relating to gas operations and infrastructure, and Utilization Technology Development, NFP (UTD), focusing on end-use research. GTI provides administrative support and contract research services to these companies.

GTI's Sustaining Membership Program (SMP) addresses new technologies beyond the near-term horizon, considered the early stage "building blocks" of natural gas research and development. The program strives to develop new and innovative technology concepts or adapt existing technologies already deployed in other markets to the natural gas industry.

Collectively, these industry-driven programs include nearly 30 companies and involve over \$12 million annually in leveraged funding.

Education & Training

GTI is addressing key education issues such as aging of the workforce in the natural gas industry, through our technical training programs. More than 55,000 energy professionals have attended GTI training programs. GTI offers traditional classroom training in gas distribution and transmission, energy marketing, and LNG – attracting participants from all over the world. Because many companies face time constraints, tight budgets, and travel restrictions, GTI training options include classroom courses, self-study on-line, CD-ROM courses, and on-site programs.

State Public Utility Commission Relationships and Funding

As part of its effort to broaden support for natural gas R&D and education, GTI has established relationships with the state public utility commissions. To date, 21 public utility commissions have approved the recovery of R&D costs (4Q 2006 value—\$22.4 million) for one or more local gas distribution companies. Five states currently have R&D surcharge requests pending before their Commissions. GTI has made presentations at National Association of Regulatory Commissioners (NARUC) meetings and 'Natural Gas Summit' conferences in Montana, Tennessee and Illinois. Staff from GTI are available to serve as expert witnesses during rate cases and to help companies gain approval of R&D funding recovery from gas consumers.

GTI Technical Information Center

GTI's Technical Information Center is one of the world's largest collections of information on natural gas technologies and related energy topics. The Center holds more than 33,000 texts and bound journals; 100,000 technical reports; 5,000 patent documents; 1,000 theses; 130,000 microfiche documents; and more than 500 periodical and newsletter subscriptions. The Center provides access to computerized databases, and houses special collections from the U.S. Bureau of Mines, the Pipeline Simulation Interest Group, and the Fuel Chemistry Division of the American Chemical Society. Information specialists at the Center can access information on almost any energy-related subject published worldwide since the mid-1960s, and can arrange interlibrary loans with major U.S. and foreign universities and technical libraries.

CERTIFICATE OF SERVICE

It is hereby certified that a true copy of the foregoing the *Public Version Direct Testimony of Steven B. Hines on Behalf of the Office of the Ohio Consumers' Counsel* has been served via First Class US Mail (electronically upon DEO & DEO Counsel), this 23rd day of June, 2008.



Joseph P. Sarlo
Assistant Consumers Counsel

PARTIES OF RECORD

Stephen Reilly
Anne Hammerstein
Attorney General's Office
Public Utilities Section
180 East Broad Street, 9th Floor
Columbus, Ohio 43215

David A. Kutik
Dominion East Ohio
Jones Day
North Point, 901 Lakeside Ave.
Cleveland, Ohio 44114-1190

Barth E. Royer
Dominion Retail, Inc.
Bell & Royer Co., LPA
33 South Grant Avenue
Columbus, Ohio 43215-3900

Mark A. Whitt
Andrew J. Campbell
Dominion East Ohio
Jones Day
P.O. Box 165017
Columbus, Ohio 43216-5017

John W. Bentine
Mark S. Yurick
Interstate Gas Supply
Chester, Willcox & Saxbe LLP
65 East State St., Ste. 1000
Columbus, Ohio 43215-4213

M. Howard Petricoff
Stephen Howard
Integrus Energy Services, Inc.
Vorys, Sater, Seymour & Pease LLP
52 East Gay St., P.O. Box 1008
Columbus, Ohio 43216-1008

Joseph P. Meissner
Legal Aid Society of Cleveland
1223 West Sixth Street
Cleveland, Ohio 44113

John M. Dosker
General Counsel
Stand Energy Corporation
1077 Celestial St., Ste. 110
Cincinnati, Ohio 45202-1629

Todd M. Smith
Utility Workers Union Of America
Local G555
Schwarzwald & McNair LLP
616 Penton Media Building
1300 East Ninth Street
Cleveland, Ohio 44114

W. Jonathan Airey
Gregory D. Russell
Ohio Oil & Gas Association
Vorys, Sater, Seymour & Pease LLP
52 East Gay St., P.O. Box 1008
Columbus, Ohio 43216-1008

David Rinebolt
Colleen Mooney
Ohio Partners for Affordable Energy
P.O. Box 1793
Findlay, Ohio 45839-1793

Stephen M. Howard
Ohio Gas Marketers Group
Vorys, Sater, Seymour & Pease LLP
52 East Gay St., P.O. Box 1008
Columbus, Ohio 43216-1008

David F. Boehm
Michael L. Kurtz
Ohio Energy Group
Boehm, Kurtz & Lowry
36 East Seventh Street, Suite 1510
Cincinnati, Ohio 45202

Samuel C. Randazzo
Daniel J. Neilsen
Joseph M. Clark
Industrial Energy Users-Ohio
McNees, Wallace & Nurick
21 East State St., Ste. 1700
Columbus, Ohio 43215