BEFORE THE
STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

In the Matter of

Natural Gas Pipelines to serve Dunkirk Generating Facility

Cases 14-T-0360 and 14-T-0458

December 2014

Prepared Testimony of:

Cost/Bypass Panel

Thomas Hughes, Michael Sommer

and Ronald Bevacqua, Jr. on

Behalf of Dunkirk Gas Corporation

Dated: December 19, 2014

Q. Please state your full name, employer, and business address.

A. We are Michael Sommer, Thomas Hughes, and Ronald Bevacqua, Jr. Mr. Hughes's business address is Thomas R. Hughes & Associates, Inc., 9 Buxton Lane, Riverside, CT 06878. Mr. Bevacqua's business address is 9 Freezer Rd, Sandwich, MA 02563.

Q. Mr. Sommer, have you previously testified in this proceeding?

A. Yes.

Q. Mr. Hughes, in what capacity are you employed?

A. I am a consultant to—and testifying on behalf of—Dunkirk Gas Corporation ("DGC") on the matter of the PSC's Gas Bypass Policy.

Q. Please summarize your educational background and professional experience.

A. I hold a Bachelor of Science Degree in Mechanical Engineering from the University of Massachusetts and have been employed in the natural gas industry for over 50 years. I have worked for 40 years as a consultant to the natural gas industry. Additionally, I served on the Staffs of the Federal Power Commission ("FPC")—predecessor to the Federal Energy Regulatory Commission ("FERC")—and the New York Public Service Commission ("Commission") for a combined total of eleven years. I have testified on natural gas rates, tariffs, markets, and related matters before FERC (including predecessor FPC), this Commission, the National Energy

Board of Canada, several state and Canadian provincial regulatory authorities, and federal courts. I was Chief of Natural Gas Systems Planning for the Commission and a senior regulatory engineer in the Bureau of Natural Gas at the FPC.

Q. Mr. Bevacqua, in what capacity are you employed?

A. I am Project manager for the engineering and construction aspects of the Dunkirk Natural Gas Pipeline.

Q. Please summarize your educational background and professional experience.

A. I hold a Bachelor of Science Degree in Mechanical Engineering Technology, Northeastern University, 1991. I have over 20 years of experience in power generation, and 3 years of experience in natural gas distribution system design.

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to address the filing requirement of the Ruling Modifying Schedule, issued November 21, 2014, directing DGC to file its cost information, and to satisfy the agreement reached during a telephone conference with Judge Van Ort and the parties to submit certain price offers by National Fuel Gas Corporation ("NFG") and DGC. This testimony also addresses certain statements made in the testimony of the Department of Public Service Staff's Gas Policy and Safety Panel direct

testimony ("Staff Policy Panel") and the direct testimony of John J. Polka on behalf of NFG ("Polka Direct"), filed on December 2, 2014. Specifically, we will address the Public Service Commission's Gas Bypass Policy and its application to the facts in these proceedings. As to the aforementioned cost information, we are presenting DGC's Exhibit 9, the results of the request for proposals ("RFP") conducted on behalf of DGC, as well as the last offers made between DGC and NFG to provide gas transportation service to the Dunkirk Generating Station. Finally, this testimony will introduce the various evidence required by the Bypass Policy.

Q. Are you sponsoring any exhibits?

A. Yes. The following exhibits support our testimony:

- Exhibit _____, Cost / Bypass Panel (CBP)-1 Exhibit 9 Cost of Proposed Facilities, which was previously submitted in redacted form;
- Exhibit _____, Cost / Bypass Panel (CBP)-2 Interrogatory Response DGC-1;

Q. Mr. Bevacqua, can you describe the contents of Exhibit _____, CBP-1?

A. Exhibit _____, CBP-1 contains estimates of costs to build the DGC pipeline on its proposed route that were prepared by DGC.

Q. Please describe the capital costs estimated by NFG for the proposed

Dunkirk line.

A. In its submitted bid in response to the Dunkirk RFP, NFG proposed a capital cost of $40,149,000 to build the DGC pipeline on the DGC route.

Q. How do the NFG cost estimates compare to the other bids received in response to the RFP?

A. DGC received a number of bids in the RFP. Two bids were received for the "build, own, operate" option, including NFG. Five bids were received for the "construction only" RFP. The capital costs received in response to the RFP range from $40 to $47 million; the bids have not been fully evaluated or negotiated, but, based on the responses, the capital cost bid by NFG appear reasonable.

Q. As to variable costs, what are DGC's estimated variable costs if it owned and operated the DGC pipeline?

A. DGC variable costs would be for balancing services. We estimate these charges at $0.10/MMBtu on 100% of the gas consumed or $600,000 annually assuming 6.0 bcf annual consumption. No other variable charges would be incurred.

Q. How do those variable costs compare to the variable charges NFG Distribution and Supply have said they would assess if they owned and operated the Dunkirk or NFG pipelines?

A. Based on annual fuel consumption of 6.0 bcf and a fuel price of

$4.00/MMBtu, the variable charges for NFG Distribution and NFG Supply are determined as follows:

	Rate	Annual
Cost		
Variable Transportation Charge, NFGDC	$0.05/MMBtu	$300,000
Variable Transportation Charge, NFGSC	0.10/MMBtu	$600,000
Fuel Retention Charge, NFGDC	1.0%	$240,000
Fuel Retention Charge, NFGSC	1.0%	$240,000
Balancing Charge, NFGDC (20% of vol)	$0.15/MMBtu	$180,000
Additional Balancing (Note 1)(100% of vol)	$0.05/MMBtu	$300,000
Note 1 – Because NFGDC balancing services are interruptible Dunkirk will need to procure additional balancing services		
Total Annual Charges		$1,860,000

Q. Are there fixed charges for each project?

A. Yes. The fixed costs determined for DGC would cover routine operations and maintenance activity and insurance. DGC estimated these costs at $400,000 annually based on the costs incurred at an affiliated gas pipeline in New York State. The fixed costs charged from NFG are included in its proposed demand charge; the demand charge amounts to $4,675,320 annually. The NFG charges include a capital cost recovery component whereas the DGC capital cost is part of the initial construction investment.

Q. The System Benefit Credit NFG proposes to apply to its capital cost estimate seems to offset the operating cost differential between the two projects shown above over the ten year period. Why is NFG ownership of the pipeline still more expensive than DGC ownership?

A. The combined demand charges and operating costs from NFG Distribution and Supply over 10 years total approximately $64 million in nominal dollars. The total capital cost and operating costs for DGC would be approximately $55 million. Furthermore, the gas addition project will have a contract for a 10-year term. At the end of that term, the pipeline, which has a typical useful life of 40 years, will have significant value, up to full replacement cost. In ten years the full replacement cost could be significantly higher than present day costs. A conservative estimate of the pipeline's worth would be its depreciated value. Therefore, if the initial cost is $40 million, the depreciated value assuming a 40-year life would be $30 million. DGC loses the residual value of the pipeline by foregoing ownership while NFG continues to collect revenues from the any continued power plant operation and any existing and new customers that are serviced from the line for the remaining life of the pipeline.

Q. What is the value of DGC's pipeline after ten years of operations, assuming the power plant discontinues operating?

A. Assuming DGC's pipeline is dedicated to the power plant, its value after

operating 10 years would range between its salvage and replacement value. If the power plant closes and neither NFG nor another prospective owner converts the pipeline to another use, the salvage value prevails. If NFG or another potential owner has an interest, the starting value from DCG's perspective would be the replacement cost. The prevailing market conditions, however, would set the value.

Q. How would the value be perceived if the power plant continues to operate?

A. If the line continues to serve the power plant—which seems probable given the existing infrastructure for power generation with a new gas supply and existing transmission interconnect—its value would be very high. The power plant and established and potential distribution markets likely would set DGC's pipeline value at its full replacement cost. DGC will lose this value while NFG will continue to enjoy the revenues from any continued operation of the power plant as well as existing and new customers on the pipeline. In addition, if the current configuration at the Dunkirk Generating Station is replaced with a combined cycle high capacity factor unit, both the gas consumption and, consequently, the residual value of the pipeline would increase.

Q. What is your conclusion as to whether Dunkirk's costs to build and operate its proposed line are more or less expensive than NFG's last offer to build, own, and operate either pipeline?

A. The combined fixed and variable costs to operate the DGC pipeline over 10 years is $55 million for DGC and $64 million for NFG. Therefore, the cost of NFG ownership exceeds NRG ownership by $9 million. In addition, DGC forfeits the substantial residual value of the pipeline. Therefore, the NFG offer is more expensive.

Q. What were the last best offers exchanged by NFG and DGC?

A. A summary of cost terms proposed by DGC and NFG are as follows.

	NFG (NFG Route)	NFG (DGC Route)	DGC
Demand Charge	3.03/MDQ	3.33/MDQ	2.85/MDQ
Variable Trans	$0.05	$0.05	$0.05
Fuel Retention	1%	1%	1%
Gross Receipts Tax	1.0101%	1.0101%	1.1010%
Min Annual Volume	5.5 bcf	5.5 bcf	4.0 bcf
NFG Supply			
Variable Trans	$0.10	$0.10	$0.10
Fuel Retention	1%	1%	1%

Note on Property Taxes – The County of Chautauqua Industrial Development Agency (CCIDA) has stated that if the only offtaker of the

pipeline is Dunkirk Power LLC, the PILOT payments will not be affected. If, however, the pipeline serves any offtakers other than Dunkirk Power LLC, the CCIDA may collect additional payments from the pipeline owner and not Dunkirk Power LLC. These payment conditions will apply irrespective of the route or whether the pipeline is owned by an affiliate of Dunkirk Power LLC or any other entity, affiliated or unaffiliated.

Q. If NFG were to own the pipeline do you believe there are reasons to select one pipeline over the other?

A. Yes. The DGC pipeline has completed substantially more development, permitting, engineering, and ROW work than NFG. This certainty should reduce the risk of possible delays to the gas addition project as we have testified earlier. If NFG was able to reach the price point proposed by DGC, this would be the preferred route. DGC would of course work with NFG to facilitate the transfer of all approvals and provide whatever assistance NFG requires to understand the conditions and other requirements to which DGC has committed.

Q. Are there other reasons why the aforementioned discounts requested from the NFG proposed demand charges are justified?

A. Additional support for the proposed reduction in the Demand Charge DGC is requesting is also warranted to reflect what should be an increased

Bypass Avoidance System Benefit, as described below, as well as the correct allocation of certain NFG Distribution and Supply variable charges, also addressed below. Those charges represent the cost of providing a system benefit to NFG ratepayers, and should be allocated accordingly. Overall, these reductions should make costs associated with NFG's ownership of the pipeline competitive with what DGC could be able to achieve by building and operating the project.

Q. Mr. Hughes, are the respective descriptions advanced in the Staff Policy Panel and Polka Direct testimony of the Commission's Bypass Policy sufficiently complete?

A. No. The Commission's Bypass Policy is not completely presented in either the Polka or the Staff Policy Panel testimony. As explained below, application of the Bypass Policy allows Dunkirk to choose its gas transportation provider based on the most economical option. I will describe the Bypass Policy and then address the specific testimony of Staff and NFG.

Q. Please describe the Bypass Policy.

A. The Commission established its Gas Bypass Policy to create a level playing field for utilities to negotiate competitive rates for gas transportation service with "large volume customers" and thereby avoid uneconomic bypass. Uneconomic bypass, according to the Commission,

occurs "when the cost of the bypass service is lower than the price that could be charged by the LDC, but higher than the cost to the utility of providing similar service." Case 90-G-0379, Proceeding on Motion of the Commission to Investigate the Impact of Bypass by Gas Cogeneration Projects, Statement of Policy Regarding By-Pass of Local Distribution Companies by Large Volume Users (issued March 6, 1991) at 2 n.1 ("Bypass Policy"). Simply stated, uneconomic bypass occurs when a large volume end-user bypasses the facilities of an existing LDC, but pays more for the service than it would cost the LDC to provide it.

Q. Was the Bypass Policy developed to allow LDCs to offer lower transportation rates to high volume customers?

A. Yes. In its August 12, 1991, clarification of its Gas Bypass Policy, the Commission stated that the Bypass Policy was formulated "to permit LDCs to respond to a competitive situation, and does not apply where customers lack alternative opportunities." The Bypass Policy is, therefore, meant to protect utilities from the possibility that their tariffs will prevent them from offering competitive terms to a large volume user. As the Bypass Policy states, "[c]ompetition arises where end-users contemplate constructing and operating their own transmission facilities to connect directly to pipelines. They must then compare the rates of the LDC and the costs of direct ownership and operations. Regulatory policies should

avoid unnecessarily impeding the LDCs' ability to compete in this market, for they may often be able to provide transportation service that will attract cogenerators and large industrial customers while still benefitting the general body of ratepayers." The Bypass Policy, therefore, allows the utility to offer such customers a lower rate, so long as that rate "not only recover[s] all incremental costs of service but also contribute[s] to overall system costs."

Q. Does the Bypass Policy place any requirements on the end-use customer?

A. Yes. Users considering bypassing their local utility must engage in arms-length negotiation with the utility and afford the utility the opportunity to make a competitive offer of service. If the user and the utility cannot reach agreement though, the Policy does not require the user to take service under the utility's tariff rates. Rather, both parties are permitted to present "fully developed competing proposals for the Commission's evaluation."

Q. At page 9, Lines 2–10 of the Staff Policy Panel testimony, DPS states that it expects DGC and NFG to comply with the Commission's policy statement requiring certain evidence to be presented by applicants and LDCs in Article VII proceedings. To what requirements is Staff referring?

A. When presenting a proposal for the Commission's evaluation, the Policy calls for the party applying for an Article VII certificate to construct and

operate gas transmission facilities to submit evidence on: (i) the cost of the proposed facilities; (ii) the adequacy of gas service to general customers in the vicinity of the proposed facilities; and (iii) environmental and economic costs associated with any duplication of existing facilities. Significantly, a utility is allowed to challenge the applicant's evidence "only on the basis of evidence of its interest and ability to serve the bypassers' requirements." The purpose of such evidence is to develop a record adequate for the Commission to consider "the public benefit of [granting] a certificate." The utility's evidence should include all incremental costs of providing service over the term of a potential contract. In addition, a proposed bypasser should also present a plan for the development of general service in the vicinity of its proposed facility (by itself or in conjunction with a utility) or present evidence why such service should not be considered.

Q. Can you address each of the requirements stated above as they would apply to Dunkirk?

A. Yes. i) Based upon the cost information presented above, while the capital costs for both routes are comparable, the variable costs of DGC ownership are significantly lower on an annual basis. NFG's failure to consider the residual value of the pipeline, the lost opportunity revenues from serving the Dunkirk Generating Station, and NFG's failure to allocate variable

costs incurred to serve its distribution system assign too much cost to DGC. ii) The gas service to general customers in the vicinity of DGC's proposal is safe and adequate, according to NFG. The Polka testimony, Page 3, Lines 10–12, describes current natural gas service to customers as "reliable, safe and adequate." iii) There are no environmental or economic costs associated with any duplication of existing facilities in this case because there will be no such duplication. It is undisputed that NFG lacks existing facilities capable of serving the Dunkirk Generating Station.

Q. Does DGC have a plan for the development of general service in the vicinity of its proposed Project?

A. No. Based on the testimony of NFG, no such plan is necessary. Current service in the area is "reliable, safe and adequate." According to NFG, if NFG were to own the Dunkirk pipeline, it would use it to provide a backfeed into the existing distribution system, and similar system benefits for its distribution system would be achieved on either route. See Exhibit _____, CBP-2. On the other hand, DGC is a single purpose entity, created to provide transportation service to its affiliate. As such, it has no interest in providing general residential and commercial service to the area, especially where such service already exists and is adequate according to NFG.

Q. Does the Bypass Policy offer any guidance on what rate the LDC should

be able to charge a potential bypasser?

A. Yes. The fundamental principle the Commission expressed is that LDCs should be allowed to negotiate lower rates as needed to allow them to effectively participate in competitive markets. These rates, at a minimum, should not only recover all incremental costs of service, but also contribute to overall system costs.

Q. Does the Bypass Policy describe how these costs should be calculated?

A. Yes. The Commission stated that while actual costs must be determined on a case-by-case basis, certain general principles should apply to those determinations. Specifically, current and future incremental operating and capital costs expected over the life of the contract should be taken into account. In addition, the costs of balancing service caused by the end-user must be recognized and estimated over the life of the contract. Finally, the Commission refused to adopt a floor contribution of $0.10/dt, holding instead that a level of contribution to system costs should be decided case-by-case, fully taking into account any impacts or benefits of individual projects.

Q. Does the Bypass Policy address the issue of lost revenues by the LDC?

A. Yes. The Commission decided that the specific issue of lost revenues or lost opportunities would not be considered a cost to be assessed on a bypass project, but rather as part of a utility-proposed alternative. The

Commission clarified that capturing otherwise lost opportunities may serve to reduce the transportation rate that the utility should be able to offer a potential bypasser. See Bypass Policy at 17.

Q. In sum, how would you say the Bypass Policy applies to the proposed DGC project?

A. As the Commission stated, a bypass is only uneconomic if the cost of the bypass service is higher than the marginal cost to the LDC of providing the service, having taken into account all of the benefits that can be realized by the LDC. Otherwise, the bypass is economic. The Commission explicitly recognized that changes in the industry may sometimes make it more economic or feasible for end-users to bypass utility service, especially where a utility cannot or will not negotiate a competitive rate to provide service. Therefore, where the LDC cannot or does not offer a rate that is lower than what the bypasser is able to achieve on its own, the Bypass Policy reserves the right to bypass to the end-user.

Q. Are there specific sections of the Polka Direct Testimony you would like to address?

A. Yes. On page 6 of his testimony, Mr. Polka claims that "bypass" harms LDC customers in two ways, namely by depriving the LDC of revenues from the bypassed customer, and by lowering utilization of a system built for higher consumption.

Q. Do you agree with this assessment?

A. No. In the first instance, DGC's proposed bypass cannot lower utilization of NFG's existing system because that system was not built to, and is not in fact capable of, serving the Generating Station. Second, while NFG identifies lost revenues as a harm of bypass, it fails to identify and include lost revenues from serving the Generating Station in its system benefits analysis. NFG has identified $11 million in system benefits, which should be offered to the Dunkirk Generating station as a credit. That benefit consists of $7.5 million of replacement cost avoidance, $3.0 million gained from access to contracted capacity on NFG Supply and TGP, and $0.5 Million in system bypass avoidance. The system bypass avoidance benefit in turn consists of revenues from several large manufacturing facilities located along the Project route, which NFG believes would be able to be served by DGC at lower cost. According to NFG, this analysis does not include the substantial lost revenues from the Generating Station. *See* Exhibit 1 to Polka Testimony, filed on Dec. 2, 2014. Those revenues should be included in the analysis and support increasing the System Benefit Credit, which in turn supports the reduction to the proposed NFG demand charges sought by DGC, discussed earlier in this testimony, that should be offered to the Generating Station. These revenues are substantial. Based on NFG's last offer described above, they will amount

to a total $64 million, $55 million for NFG Distribution and $9 million for NFG Supply.

Q. Do you believe a percentage of the NFG Distribution and Supply variable charges should be allocated to NFG Distribution because they are part of the System Benefit?

A. Yes. NFG describes the services provided by NFG Supply as primarily benefiting NFG Distribution customers while proposing that DGC pay 100% of the variable costs imposed by NFG Supply. NFG describes the benefits as follows:

> Dunkirk's market of approximately 35,000 customers represents a typical mix of residential, commercial, and industrial accounts. Gas supplies for the market are delivered from TGP and shipped through NFGS through a single pipeline. Gas supplies from contracted storage service on NFGS are delivered during the winter period through the same single pipeline. The new pipeline would be designed to provide a secondary source of gas supply to the Dunkirk Fredonia market through the two proposed interconnects between the new pipeline and the existing distribution system. NFG currently contracts for over 96,000 Dth/day of capacity on TGP with receipt points from the southwest through the northeast shale production in Pennsylvania. 62,000 Dth/day of that capacity flows on TGP's 200 Line past the proposed interconnect point for delivery into NFG's capacity on NFGS in New York. NFGD's contracted capacity on NFGS includes

> Enhanced Firm Transportation (EFT) and Enhanced Storage Service (ESS). When both the EFT and ESS services are combined, NFGD is provided with a no-notice balancing service on NFGS which provides daily and intraday balancing services. By gaining access to the no-notice service associated with the contracted capacity on NFGS, Distribution will avoid any balancing issues associated with the Dunkirk-Fredonia market load.

In addition, the balancing service offered to DGC is conditioned as interruptible based on operating conditions. This uncertainty will require DGC to procure additional balancing services from TGP in the event NFGDC interrupts service in favor or its own customers.

Q. How should NFGS and NFGD's variable costs associated with service on the proposed Dunkirk pipeline be allocated between DGC and NFGD's other customers benefitting from the Dunkirk pipeline?

A. Variable costs should be allocated on the basis of the benefits that they create. According to NFG, that split is 75% to NFG Distribution customers, and 25% to DGC. Exhibit 1 to the Polka Testimony states:

> The new interconnect between TGP and NFGS is estimated to cost approximately $4.0 million and is critical to providing no-notice service to the Dunkirk area. The interconnect also aids NFG in providing the system benefits described above. Accordingly, Distribution should incur 75% of the cost of the interconnect.

According to that rationale, NFG Distribution customers will receive 75% of the system benefits associated with the Project. NFG Distribution customers should, therefore, bear 75% of the variable costs that make those benefits possible.

Q. Mr. Hughes, based upon the testimony presented herein, do you believe that DGC would be engaging in uneconomic bypass if it built and operated its pipeline proposal?

A. No. While NFG has the latitude to negotiate a comparatively lower rate, DGC's costs of providing the service, as described above, are lower than NFG's. Since DGC's operating costs are lower than NFG's, DGC's proposed bypass is not "uneconomic" under the Commission's policy.

Q. Does this conclude your testimony at this time?

A. Yes it does.