BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 090172-EI

FLORIDA GAS TRANSMISSION COMPANY, LLC

DIRECT TESTIMONY OF BENJAMIN SCHLESINGER, PH.D.

PUBLIC VERSION

Q. Please state your name and business address.

A. My name is Benjamin Schlesinger. My business address is 7201 Wisconsin Avenue, Suite 740, Bethesda, Maryland 20814.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of Florida Gas Transmission Company, LLC ("FGT"). FGT is a wholly-owned subsidiary of Citrus Corp., the stock of which is owned 50 percent by CrossCountry Citrus, LLC and 50 percent by El Paso Citrus Holdings, Inc. El Paso Citrus Holdings, Inc. is a wholly-owned subsidiary of El Paso Corp. CrossCountry Citrus, LLC is owned by CrossCountry Energy, LLC, which is an indirect wholly-owned subsidiary of Southern Union Company.

Q. What is your job title and description?

A. I am president of Benjamin Schlesinger and Associates, LLC (BSA), 7201 Wisconsin Avenue, Suite 740, Bethesda, Maryland 20814, independent consultants since 1984 on energy economics and forecasting, natural gas supply and transportation, gas pricing and contracting, utility rate design, and regulatory and lender risks worldwide. On January 1, 2009, BSA became a part of the Galway Group, L.P. ("Galway"), 3050 Post Oak Boulevard, Houston, TX, an energy advisory and investment banking firm specializing in natural gas pipelines, markets and trade in liquefied natural gas (LNG). Thus, I am also a partner and Managing Director of Galway.

Q. Please describe your education, background and qualifications.

I received Bachelor of Arts and Engineering degrees from Dartmouth College in 1967 and 1968, respectively, and Master of Science and Doctor of Philosophy degrees from Stanford University in Industrial Engineering (now, Management Science and Engineering). A former vice-president of the American Gas Association (AGA), I have advised over 400 clients in the U.S., Canada, and 27 other countries, including the top utility, energy trading and producing, lending, regulatory, educational, private power, and manufacturing firms. My consulting practice consists primarily of natural gas market research, analysis and forecasting of gas prices, and negotiation of gas supply and transportation agreements. I also have provided litigation support on natural gas markets, pricing, rates, and contract and industry issues before courts, arbitration panels, and regulatory and legislative bodies in 16 jurisdictions, including the FERC and other venues. My resume is attached as Exhibit BSA-1; this includes my list of expert appearances at trial, as well as my papers, publications, and presentations.

Q. Please provide examples of your previous consulting assignments that are relevant to this proceeding?

A. During the late 1980s and 1990s through the present, I served as the natural gas and fuel oil supply, energy transportation, pricing, and market forecasting advisor to more than 100 electricity generating power plants located throughout North and South America. These assignments included work for lenders to, and developers of new gas-fired electricity generating plants located in Orlando, Auburndale, Gainesville, and elsewhere in Florida. In addition, I have served as a gas market and supply procurement advisor to the City of Tallahassee and City of Lakeland, and have evaluated pipeline and LNG supplies for Florida in a number of commercial assignments. I have also been a consultant in past assignments for Southern Natural Gas, El Paso Energy, FPL Energy (the non-utility generator affiliated with Florida Power and Light), and Florida Progress dealing with fuel

markets, gas transportation and supply, and gas market mechanisms, including fuel supplies to power projects in Florida and elsewhere.

Q. Please identify other consulting assignments that are germane to this proceeding?

A. During the late 1990s and continuing to the present, I served as the independent gas market advisor to buyers and sellers of LNG at the existing Cove Point, MD, Elba Island, GA, Everett, MA, Lake Charles, LA, and other, newer LNG receiving terminals. In addition, I served since 2005 as the North American gas market risk advisor to the lenders in major financings of international LNG supply projects, including to RBS in the $9 billion ExxonMobil-Qatargas Rasgas II/III expansion project, to Société Générale for the BG-Egypt LNG Phase II expansion, to BNP Paribas for the Atlantic LNG Train 4 financing, to HSBC Bank and Shell's lenders for BP Tangguh and Sakhalin LNG sales, respectively, to the new Baja California receiving terminal in northwestern Mexico, to Société Générale and the International Finance Corporation (IFC) for the Peru LNG project finance, and to Société Générale for the Papua New Guinea (PNG) LNG project finance (currently in progress).

From 1984 to 2000, I served as a charter member of the New York Mercantile Exchange's (NYMEX) Natural Gas Advisory Committee, and consulted to NYMEX in development and preparation of the gas futures contract and other natural gas financial instruments. I led my firm's study efforts in preparing the NYMEX's formal justification for Henry Hub as the physical delivery point under the gas futures contract, and conducted related studies for NYMEX (continuing).

Q. Have you previously testified or presented testimony before the Florida Public Service Commission ("FPSC")?

A. Yes. I testified before the FPSC in 1991 on behalf of Florida Power Corporation re: Determination of Need for Electrical Power Plant and Related Facilities (Docket No. 910759-EI).

Q. Are you sponsoring any exhibits in this case?

A. Yes. I am sponsoring Exhibit BSA-1 through Exhibit BSA-5, which are attached to this testimony, as follows:

- Exhibit BSA-1 Curriculum Vitae of Benjamin Schlesinger, Ph.D.
- Exhibit BSA-2 FPL's Natural Gas Price and Basis Forecasts (Confidential)
- Exhibit BSA-3 Daily Flows through FGT Station 11, August 1 through November 30, 2005
- Exhibit BSA-4 Transco January 22 2009 Open Season Announcement for Mobile Bay South II Expansion
- Exhibit BSA-5 Comparison of Combined Company E/FES Proposal versus Company B Proposal, extended to Station 85

Q. What is the purpose of your testimony?

A. My testimony will explain why a) FPL has not shown that the proposed Company E and Florida EnergySecure (FES) system of pipelines will improve the economics of natural gas transmission within Florida; b) FPL's justification of the need for the combined Company E/FES system rests on economic assumptions, and fuel supply and transport costs, that are not reasonable for planning purposes; and c) the proposed Company E/FES system would not provide electricity ratepayers with the most cost-effective source of natural gas supply, transport, and delivery.

Q. Please explain your understanding of FPL's proposed Combined Company E/FES system?

A. FPL has proposed the combined Company E/FES system with the capacity to deliver 600,000 Mcf/day of added gas supplies to FPL's Cape Canaveral and Riviera power stations. According to information supplied by FPL, the combined

Company E/FES system would consist of a new 360-mile interstate gas pipeline to be constructed, owned and operated by an entity defined by FPL as "Company E" that would receive gas at Transco Station 85 and deliver this gas to the originating point of FPL's pipeline, projected to be located near FGT Station 16. As an interstate gas pipeline, the Company E facilities would be regulated by the Federal Energy Regulatory Commission (FERC). In addition, FPL would build, own and operate a new 279-mile intrastate gas pipeline entirely within the State of Florida, thus not under the jurisdiction of the FERC. The FES pipeline would receive gas at FGT Station 16 and deliver this gas to the Cape Canaveral and Riviera power stations.

Q. What would the foregoing facilities cost?

A. Information supplied by FPL indicates that the initial capital investment requirements associated with the combined Company E/FES system would be as follows: [redacted] for the Company E pipeline plus $1.6 billion for the FES pipeline, i.e., a total of [redacted] to be spent between 2012 through 2014.

FPL's Gas Price Projections

Q. Concerning the price of natural gas, what are FPL's major underlying economic assumptions in this application?

A. In Exhibit BSA-2, I have assembled FPL's major underlying economic assumptions relating to natural gas prices, and its projections of how these will change in the future at specific locations along the FGT and Transco systems, including Henry Hub, FGT Zones 1, 2 and 3, and Transco Station 85 (which is situated within Transco Zone 4). FPL has also made economic assumptions concerning how prices among a number of locations will differ from one another in the future that are shown in the exhibit.

Q. Do you agree with FPL's assumptions?

A. I do not, and it is hard to imagine that FPL has proceeded this far in its planning process based on these price forecasts and projected basis relationships. FPL has failed in my judgment to set forth a robust, internally consistent set of economic forecasts that would normally be forthcoming in conjunction with major construction project requiring the expenditure of [redacted], $1.6 billion of which it is asking this Commission to include in its rate base for its electric ratepayers to directly pay.

Q. Please explain.

A. First, the most important price of wholesale natural gas in North America is the price at Henry Hub, located in Erath, Louisiana. Henry Hub is the location for physical deliveries and receipts that is referenced in the NYMEX gas futures contract, and hosts a robust physical gas trade as well. Henry Hub has grown in the past two decades to become the continent's single most important gas pricing location, against which gas at other locations is measured.

Gas prices in North America are set through the interaction of supply and demand. Many factors will affect future gas prices at Henry Hub, e.g., including the weather; decreased offshore gas production; increased gas supplies from unconventional gas production and from LNG; lower future demand with recessions, efficient uses and electricity generation from renewables; peak period gas demands; higher future demand with growth and environmental/carbon rules; oil prices; addition of new pipelines and other infrastructure; and more. A robust forecast of Henry Hub prices is one that comprehends these critical factors.

Q. What is FPL's Henry Hub gas price forecast?

A. As shown in Exhibit BSA-2, FPL's Henry Hub price forecast may be described in general as follows:

- From now through 2020, Henry Hub prices in the FPL forecast fall then rise;

- From 2020 through 2062, a period of 42 years, Henry Hub gas prices in the FPL forecast do not change at all, i.e., they are constant in real dollars, plus an inflation factor of 2% per year.

Q. Are these Henry Hub price forecasts reasonable for planning purposes?

A. No they are not. FPL has offered very simplistic gas price forecasts that, on their face, could not comprehend, in any explainable way, the myriad supply and demand factors that might influence Henry Hub prices in the future. Instead, all of this is simply assumed away in one long, straight, flat line. In my opinion, this is not a reasonable starting point to consider a future decision affecting millions of electricity ratepayers. No one can predict future fuel prices with certainty, but the forecasting process requires that supply and demand conditions be thought through, i.e., that the numbers reflect a reckoning of the information we know about concerning future changes, such as the effect of new gas pipelines, new rules that will tighten energy demand and require renewable sources of electricity, carbon rules, international gas supply and demand, and more. In the context of a proposed [redacted] capital expenditure for new gas pipeline capacity, these cannot prudently be swept away, or somehow "averaged" into a long, straight, flat line.

More importantly, the use of never-changing Henry Hub gas price forecast in real dollars for 42 years sharply undermines FPL's decision to build the FES pipeline at all. FPL may have severely understated future natural gas prices because depletion of gas resources and diversion of LNG supplies away to higher-paying markets in Europe and Asia – these kinds of factors may cause Henry Hub gas prices to rise in real dollar terms, plus more for inflation.

In short, FPL's simplistic Henry Hub forecast suggests it has skipped doing its gas pricing analysis due diligence in a way that would justify a major new gas transportation expenditure of this magnitude.

Q. Are FPL's gas basis forecasts reasonable, i.e., its projection of the future differences among key southeastern gas pricing points?

A. Wholesale natural gas prices at locations other than Henry Hub are typically expressed as the difference between the price at a pricing point minus the price at Henry Hub, known as basis differentials. For instance, NYMEX currently offers futures contracts in basis differentials between the price of gas at 53 different locations and the price of gas at Henry Hub. These futures contracts are referred to as basis swaps, such as the Transco Zone 4 basis swap referred to by Witness Sexton (Sexton Direct Testimony, page 27).

Exhibit BSA-2 identifies FPL's projection of prices relative to Henry Hub at Transco Zone 4 (taken to equate to Transco Station 85) and at FGT Zone 3. Here again, as is the case for FPL's Henry Hub price projections beyond 2020, its projected price differentials are flat, unchanging, even with inflation added in. In other words, in the case of price differentials, no inflation factor is added to the forecast, thus the differential between prices at Transco Station 85 and at Henry Hub is assumed to equal $0.0525 per MMBtu above the Henry Hub price, year in and year out, never changing for 40 years. Likewise, the differential between FGT Zone 3 and Henry Hub is assumed to equal $0.0968 per MMBtu over the Henry Hub price, again exactly the same number for 40 years. (Sexton Direct, Exhibit TCS-7, pages 11 and 23) These differentials result in continuously $0.0443 per MMBtu lower prices at Station 85 than at FGT Zone 3, for 40 years.

In response to FGT data requests, FPL offered other basis forecasts among FGT Zones 1, 2 and 3 that are even further afield in my view. Exhibit BSA-2 reproduces portions of FPL's Excel spreadsheet submitted in response to FGT's First POD, No. 1, Document FPL001015.1, entitled "Long term Price Forecast Methodology – 2020 EIA E," in tab labeled "RAP-NATURAL GAS PRICES". It can be seen in the exhibit that some of FPL's price forecasts for "non-firm" gas are not explained, such as the [redacted] per MMBtu average difference between gas prices at Transco Station 85 and FGT non-firm (sic) for the next 40 years (with some seasonal variations). FPL also projects that the price of gas at Transco Station 85 will average [redacted] per MMBtu less than the price at the Destin Pipeline

interconnection with FGT, over 40 years. If this kind of price differential was generally expected to persist for as long as FPL's forecasts indicate it will, then FPL and other shippers would act on it by expanding capacity between these two locations (e.g., a much larger Transco Mobile Bay Lateral) well before turning to a proposal like the combined Company E/FES system.

Q. How do the foregoing forecasts relate to the need for the combined Company E/FES system?

A. They suggest strongly that FPL has based its proposed new pipeline system on a set of gas price and differential forecasts that I have to describe as unfounded, arbitrary, and internally inconsistent. Price differences among gas markets throughout the southeast and elsewhere show a marked tendency to change as supply sources shift, new pipeline capacity enters service, and demand patterns change. All pipelines affect gas prices, e.g., completion of the MidContinent Express pipeline will change shale gas prices by making new markets accessible. Basis projections must constantly be readjusted to reflect changing infrastructure in the region, yet basis projections supplied by FPL in this proceeding seem oblivious to these critical influences. For this reason, FPL has failed in my view to supply the FPSC with a credible economic basis for its decision in this proceeding as to the need for the FES pipeline.

Q. Are FPL's economic assumptions as to future gas supply prices and price differences reasonable for planning purposes?

A. No they are not. FPL has not offered a set of reasonable price and price differential forecasts for the gas that the combined Company E/FES system is proposed to receive. Instead, FPL has offered a set of forecasts that appear to be arbitrarily simplistic, unfounded and, because of the way they are presented, self-serving.

FPL's Justification of Transco Station 85

Q. How has FPL justified its selection of Transco Station 85 as the location where the combined Company E/FES system should best receive its natural gas supplies?

A. The selection process appears to have been arrived at qualitatively. For example, much of Witness Sexton's Direct Testimony explains FPL's stated preference for Station 85 as a source of unconventional gas resources, particularly shale gas. FPL has also cited supply diversity, shale gas, and lower fuel costs.

Q. Please comment on FPL's justification of having the combined Company E/FES system source gas at Station 85.

A. Based on information in the record to date, FPL has not credibly justified building its proposed combined Company E/FES system so as to receive all gas at Transco Station 85, as opposed to other possible gas supply locations in the region. I reach this conclusion for several reasons:

- Pricing. First, as I describe in the foregoing section of this testimony, I am concerned that FPL's gas price forecasting methodology is seriously flawed, including its basis forecasts that underpin the purported advantages of Transco Station 85. I will not repeat these concerns here, except to point out that, apart from zones along FGT and GulfStream, FPL supplied no basis forecasts for any other possible onshore gas supply locations. I must conclude, therefore, that FPL never considered any alternative receipt locations for its new pipeline system, other than along FGT or at Transco Station 85.
- Shale gas. Second, it is certainly true that major U.S. gas reserves and production increases have come from onshore unconventional gas resources, especially shale gas in the Barnett, Haynesville, Woodford and Fayetteville formations. At present, these new gas supplies are now more-than-offsetting declines in offshore Gulf of Mexico and other relatively more mature U.S. gas fields. Nonetheless, while recent production increases have been encouraging, FPL has

not in this record mentioned the fragility of rising shale gas production in the real world of volatile gas prices and international competition. The nature of shale gas well production is somewhat unique. Reports of 50 percent production declines in the first year of shale well operations tell us that continued, aggressive levels of drilling are essential to maintaining production levels from these kinds of resources. In the past nine months, the U.S. rig count has fallen from a peak of 1,606 drilling rigs in September 2008 to just 685 as of June 11, 2009 (Baker Hughes website), as gas prices have fallen. A continuation for another 2-3 years of this drilling deficit without a major increase in field prices would suggest strongly that the current historical levels of increase in shale gas supplies cannot be sustained. We find little discussion of these kinds of risks in FPL's materials.

- Offshore supply risks. A key part of FPL's rationale for receiving gas into the combined Company E/FES system at Transco Station 85 is that Station 85 is not located along the Gulf Coast, thus it would contribute to supply security and avoid hurricane outages of the kind that took place in 2005. Here again, FPL's analysis is unsystematic and general, especially in light of the [redacted] commitment electricity ratepayers are being asked to finance. In fact, gas supplies at a number of onshore Gulf locations were sharply reduced immediately following hurricanes Katrina and Rita, but then rebounded shortly afterward, precisely because rising onshore production was quickly able to replace much of the reduction in offshore production. Exhibit BSA-3 shows how gas supplies in FGT Zone 3 rebounded within days following Hurricanes Rita and Katrina. Quick supply recovery at this and other onshore Gulf Coast pooling points took place because the pipeline grid in the Gulf region is highly and increasingly interconnected, thus enabling considerable volumes of onshore gas tend to migrate to major points along the Gulf Coast. This means that one needn't necessarily "escape" to Transco 85 to avoid Gulf hurricane outages; indeed, the history of the region's destructive hurricanes suggests that Station

85 may be as vulnerable as the next point. In any event, FPL's analysis of this risk is not in evidence.

- Supply diversity. FPL's claims of supply diversity arise out of its belief that it would be able to purchase shale gas supplies at Transco Station 85 that it cannot purchase elsewhere, i.e., that it can uniquely access new supplies at Transco Station 85. However, FPL has not evidently considered the purchase possibilities that a northern Louisiana receipt point would offer it, e.g., in the vicinity of Perryville, Louisiana. The U.S. Energy Information Administration (EIA) reported in April 2009 that pipeline receipt capacity at the Perryville Hub has now reached 6.6 Bcf/day, making Perryville at this point the largest gas hub in the U.S., with twice the transit capacity as even Henry Hub (see Exhibit MTL-12, Table 2, page 4). Both of the new gas pipelines to Station 85 that FPL is counting on – Kinder Morgan's MidContinent Express and GulfSouth's Boardwalk pipeline – pass first through Perryville, where they interconnect with other systems. Conversely, several other new pipelines to Perryville are not slated to continue onward to Transco Station 85. Consequently, Perryville is arguably a more important source of shale gas than Transco Station 85, and at a lower cost. However, a Perryville receipt point would logically feed into FGT, e.g., on an expansion of the Southeast Supply Header (SESH), a possibility that FPL appeared not to consider in any of the economic cost comparisons that are in this record.

Q. Will gas market liquidity at Transco Station 85 be sufficient to justify FPL's plan to source all of its combined Company E/FES system gas there, and why is this important?

A. FPL has not demonstrated that liquidity would be sufficient for its purchasing needs at Transco Station 85 as opposed to other locations or hubs. Liquidity at the Perryville hub is likely to exceed that of Transco Station 85 because a larger number of pipelines interconnect at Perryville, receipt point capacity is greater, and, therefore, new shale gas supplies at Perryville will exceed those available at

Transco Station 85. The risk to the combined Company E/FES system that the Commission must consider, and that FPL has not documented, is that insufficient liquidity at Station 85 may make it necessary for FPL to procure upstream capacity on either the MidContinent Express, Boardwalk or even Transco pipelines in order to ensure that it will have the ability to receive gas supplies into the combined Company E/FES system when, as and if needed. The costs of these upstream commitments, were they required, would have to be borne by FPL's electricity ratepayers in Florida.

Q. Is the commencement of FPL's proposed facilities at Transco Station 85 reasonable for planning purposes?

A. As set out, the combined Company E/FES system poses supply risks to Florida's electricity ratepayers that FPL has not explored for the FPSC. Instead, FPL's simplistic price and basis forecasts fail to provide convincing evidence that there is a need for a new pipeline system into Florida originating Transco Station 85. In addition, FPL has failed to demonstrate that liquidity at Transco Station 85, which is still emerging, will be sufficient to preclude the need to contract upstream of Station 85, thus adding further to the burden the new combined Company E/FES system would place on electricity ratepayers in the State.

Q. What is the impact of FPL's failure to provide supported price and basis analysis in this proceeding?

A. Without this required analysis, there is little basis for an informed decision by the Commission. It seems clear that there are other supply and transportation alternatives not adequately investigated by FPL that would provide less costly, and more price competitive supply alternatives as compared to access at Transco Station 85. In my opinion, FPL has failed to justify the commencement of the combined Company E/FES system at Transco Station 85, as opposed to other possible onshore locations.

FPL's Inconsistent Rate Presentation

Q. What are the alternative proposals that FPL has compared in information it submitted in this proceeding?

A. FPL has placed information into this record concerning two pipeline alternatives to supply incremental gas to the Cape Canaveral and Riviera energy stations. These alternatives are (1) the combined Company E/FES system, consisting of Company E's 360-mile interstate pipeline originating at Transco Station 85 plus FPL's proposed 279-mile intrastate FES pipeline, or (2) a modification to FGT's "Company B" proposal to deliver gas from Transco Station 85 along Transco's Mobile Bay Lateral to the interconnection with FGT's pipeline at Citronelle, Alabama, plus capacity expansion along the existing FGT pipeline sufficient to serve the same end markets.

Q. Has FPL offered in this proceeding internally consistent assumptions about pipeline rates for the foregoing alternatives?

A. No, it has not. FPL has offered a rate comparison that can only be described as apples-to-oranges.

Q. Please explain.

A. In presenting rates for its own intrastate pipeline, FPL has offered a declining 40-year rate schedule, but when alluding to interstate pipeline rates FPL has used a flat rate proposed by the pipeline (Company B or E, as the case may be) and held that constant for 40 years. More specifically, FPL has offered a 40-year declining rate schedule for the FES pipeline proper, i.e., its own intrastate portion of the proposed combined Company E/FES system. This rate in the initial year of service is $1.32 per MMBtu, declining down to $.21 per MMBtu in the 40th year. FPL has then taken as a 40-year constant the proposal of Company E to charge a flat rate of [redacted] per MMBtu for the latter's [redacted] pipeline to move gas from Transco Station 85 to FGT Station 16. I understand that Company E did propose to price its

transportation service for a rate of [redacted] MMBtu, but FPL has not offered any explanatory or further supportive analysis regarding Company E's rate or how sustainable it is, how expansions will be priced, or what other shippers elsewhere may be required to help sponsor the [redacted] investment requirement. Consequently, this Commission has no way to analyze or determine the risks associated with Company E's offer, e.g., rate adjustment risks if some of the assumptions that underpin that rate are not sustainable.

For the FGT/Company B proposal, FPL has likewise assumed a flat rate of $1.75 (which is actually equal to $1.68 per MMBtu in FGT's March 18, 2009 proposal) as fixed number for 40 years. FPL has then assumed that another $.20 per MMBtu would have to be added to Company B's proposed rate in order to secure transportation along Transco's Mobile Bay Lateral from Station 85 to FGT's proposed receipt point at Citronelle, AL (see Exhibit HCS-2). Review of the FERC's approval of Transco's expansion of the Mobile Bay Lateral, however, indicates the likelihood of a far lower incremental rate of $.09 per MMBtu (see Exhibit MTL-7, page 7). Transco indicated in its Open Season to expand the Mobil Bay Lateral in January 2009 by 550,000 Mcf per day with rolled-in rate treatment, i.e., $.09 per MMBtu (a copy of Transco's January 22, 2009 announcement is attached as Exhibit BSA-4).

Q. What is the consequence of trying to look at pipeline rates this way?

A. FPL's comparison unfairly tips the results toward its own proposal. In Exhibit BSA-5, I compare the way FPL's proposed rate, if levelized for 20 years and then added to its never-decreasing version of the Company E rate, would compare against a never-decreasing version of the FGT/Company B proposal, as extended to Transco Station 85. By this logic, FPL would have us believe that the combined Company E/FES system would cost electricity ratepayers in Florida only [redacted] more than FGT/Company B's proposal, as extended, all things equal.

Q. What is wrong with the conclusion that the combined Company E/FES system would cost electricity ratepayers in Florida only [redacted] more than Company B's proposal, as extended to Transco Station 85?

A. First, there are significantly different assumptions of demand associated with the calculation of these rates. In the Company E/FES calculation, FPL assumes full utilization of 600,000 Mcf/day of capacity from day 1 of the system operation, while their own testimony indicates they only expect to require 400,000 Mcf/day of capacity initially. As such, if the Company E/FES proposal is adjusted to reflect utilization of the lower volumes at a level of 400,000 Mcf/day, the rate would be [redacted] higher that the rate under the FGT proposal, both from Station 85. Moreover, on its face, the idea that Florida's electricity ratepayers face only a relatively small difference in transportation rates between the Combined Company E/FES system versus the FGT/Company B alternative is preposterous because the initial capital investment requirement for the combined Company E/FES proposal is [redacted], as described above, while the comparable capital cost of the March 18, 2009 version of FGT/Company B's proposal is about $1.0 billion, albeit for a 400,000 Mcf/day expansion that more closely matches the stated need.

Q. Would the proposed combined Company E/FES system, including the Company E pipeline and the FES intrastate pipeline, provide the most cost-effective source of natural gas supply, transport and delivery?

A. No, this is not the case. Moreover, even if the combined Company E/FES system were competitive with the FGT/Company B proposal – which it is not – the rate information supplied by FPL treats interstate versus intrastate pipeline capacity costs in an inconsistent way, ignorant of the risks and other factors that I have described above, thus rendering impossible a fair, balanced comparison.

Q. Is a new combined Company E/FES system originating at Transco Station 85 in the interest of Florida's electricity ratepayers?

A. Again, FPL has not shown this to be the case. In fact, the proposed combined Company E/FES system (comprising both FPL's proposed FES pipeline and Company E's proposed pipeline) would force Florida's electricity ratepayers to sponsor a transportation system costing three times as much as the FGT/Company B proposed 400,000 Mcf/day expansion of its pipeline system. Whatever the merits of a third pipeline into Florida may be, it would seem lavish to require the State's electricity ratepayers to sponsor such a cause in this way, especially given the more likely future demand.

Q. Witness Sexton and others suggest that the 600,000 Mcf/day combined Company E/FES system would benefit electricity ratepayers because it could be expanded through compression to meet more longer term need projections (Sexton Direct, page 6, line 7, page 52, line 20, et al). Please comment?

A. To begin with, FGT Witness Langston has called into question FPL's need to commit its ratepayers to a wholly new 600,000 Mcf/day pipeline system, let alone expansions thereof. Pipeline expansion capacity can be made available in the future in alternative ways, but FPL has not offered any specific analysis in this proceeding of expansion costs of one versus another system. Moreover, it is important to remember that downstream capacity expansion would generally offer shippers little benefit without corresponding upstream expansion, but FPL offers no analysis of that either in the record. In summary, FPL has not made a case that the proposed combined Company E/FES system as a whole would benefit ratepayers because it might be expandable, thus the FPSC should disregard unsubstantiated statements to that effect.

Pipeline Policy

Q. What does FPL's proposed scheme to include the FES pipeline in its electricity rate base imply for pipeline policy?

A. A major new gas pipeline that would traverse 13 counties in Florida for 279 miles is clearly not electricity plant. Instead, if approved and constructed, this would be a natural gas transportation system that ought to be certificated in its own right as such, carrying all the attendant rights and obligations for shippers, including transparent terms and conditions of service, fair and open access provisions, capacity management (release), regulated rates, and public information requirements.

Instead, FPL has proposed the FES pipeline in a different way, as essentially a private pipeline, in effect a "driveway" to its power plants. This is more than an inappropriate use of the private and public lands in Florida that the line would traverse – FPL's private pipeline scheme is inimical to the highly successful gas pipeline system that evolved in the 20th century in the U.S. and Canada. Here in North America, we have wisely fostered an independent gas pipeline industry and network that serves its shippers as customers. It is the envy of the world's gas regulators, industry, and customers. Some other important gas-using regions have not been so lucky, or foresighted. In particular, European pipelines are not independent companies, but instead, producers, customers, and governments typically own them. Efforts to create open access transportation markets in Western Europe have been stymied for two decades by the crosscurrent of conflicting interests created by entities owned by major other players in the industry.

Q. Have other states dealt with this type of regulatory issue?

A. FPL witness Sexton points to California in his comparisons to the Florida market. In California, however, following many years of regulating in-state gas pipelines that were integrated with gas distribution operations of Pacific Gas & Electric Company (PG&E) and Southern California Gas Company (SoCal Gas), the state

commission specifically recognized in 1998 the unworkability of this scheme, and issued orders to both companies to unbundle their gas transmission systems as stand-alone entities from a ratemaking and service standpoint. In-state pipelines are subject to rules requiring open access, transparency, and substantial limitations on affiliate preferences. All of this parallels the current regulatory scheme at the federal level that requires gas transmission system unbundling, and serves to eliminate many of the conflicts seen in markets such as in Western Europe and other places where such protections are lacking. Approval of FPL's FES proposed pipeline would thus be a giant step backward and not in the best interests of ratepayers, and certainly not in the best interests of the larger public.

Q. How should a customer-owned gas pipeline be structured and regulated, if one is to be approved?

A. Like any other long-line gas transportation system in North America. Assuming there is a sufficient demonstration of need and that FPL's pipeline is the best way to address that need, the FES pipeline should be structured and regulated by the FPSC as a stand-alone entity with a transparent obligation to connect and serve shippers, a fair and compatible rate structure subject to open access rules, bans on affiliate preferences, and other features that have made the North American open access gas pipeline system so successful. Submersion into the rate base of a single-customer industry would render these benefits unworkable.

Market Concentration

Q. In Supplemental Testimony, Witness Jonathan D. Ogur makes use of the Herfendahl-Hirschman Index (HHI) to demonstrate that the combined Company E/FES system is needed to make Florida transportation markets more competitive. Do you agree?

A. No, I do not. Use of the HHI index is not germane to Florida's pipeline transportation market. Both FGT and Gulfstream are interstate open access pipelines under the rules and regulatory oversight of the FERC. The FERC's rules

dating back to Order 636 in 1992 and others require third-party access on a fair, competitive basis, with highly structured capacity allocation and release mechanisms aimed at preventing market concentration and abuse. Consequently, both pipelines are immune to capacity hoarding, withholding or preferential treatment for affiliated entities or pre-arranged shipper transactions. In sum, the FERC's rules (culminating in Order 636 et seq.) effectively prevent the kinds of anti-competitive practices that could otherwise arise, rendering both pipelines essential public facilities open to any and all shippers on an equal basis. These are not, as a consequence, market concentrators and are not conducive to HHI analysis.

For this reason, an HHI analysis of interstate pipelines in Florida is no more relevant than a similar analysis of Maryland's gas distribution market – i.e., if Baltimore Gas and Electric and Washington Gas each serve half the State's gas distribution market, then by Witness Ogur's logic, Maryland's gas distribution market would have an HHI of 5,000. That conclusion would be equally meaningless as Witness Ogur's reflections about Florida's gas transportation market.

Q. FPL witness James K. Guest states on page 6 of his Supplemental Testimony that the "overwhelming" primary purpose of the FES Line is to meet the gas transportation needs of FPL's gas-fueled generating stations and as such FPL should classify the cost to construct the line as Electric Utility Plant and the depreciation, operation and maintenance expenses related to the Line after it has been placed in service should be charged to electric utility operating expense accounts. Please comment.

A. I don't think FPL can have it both ways, and the Commission should take heed: If FPL believes the proposed FES pipeline is only just a driveway to move gas exclusively to their power plants, as Witness Guest argues, then the line will not foster competition in the State, and all testimony to that effect should be disregarded. Conversely, if they believe the proposed FES pipeline will be one that

is generally used by the State's gas industry, then it should be structured, operated and regulated as a stand-alone commercial entity, not as an appendage of power generating stations.

Conclusion

Q. Will the proposed Combined Company E/FES system improve the economics of natural gas transmission within Florida to assure the economic well-being of the public?

A. No, in my opinion it would not, and FPL has not offered compelling or convincing information that tells us it would. The proposed FES/Company E pipeline system would cost [redacted], $1.6 billion of which would be charged directly to Florida's electricity ratepayers, with no corresponding benefit that could not be provided at a lower cost by alternative systems – same source, same destinations.

Q. Do you have any final recommendations for the Commission?

A. My recommendations are as outlined above. In particular, it is critical that the FPSC have before it the information necessary to evaluate the kinds of risks I discussed in this direct testimony – including risks of upstream supply acquisition that could be needed at Station 85, rate risks to electricity consumers of all components of the proposed Company E/FES pipeline, risks inherent in allowing FPL to greatly overbuild capacity, and risks that will arise by bundling a very long distance gas pipeline into its electric rate base. In short, the Commission needs to weigh the need for the FES pipeline against a range of options and pipeline configurations that may be considerably less costly and less risky to Florida's electricity ratepayers and the public at large.

Q. Does this conclude your direct testimony?

A. Yes, it does.

BENJAMIN SCHLESINGER, PH.D.

RESUME, LIST OF EXPERT APPEARANCES AT TRIAL, PUBLICATIONS, PAPERS AND PRESENTATIONS

SUMMARY

Dr. Schlesinger, founding president of Benjamin Schlesinger and Associates (BSA), is one of North America's leading independent energy consultants, specializing in gas and electricity marketing, pricing, infrastructure, trading practices, strategic planning, and power plant development worldwide. He has nearly four decades of experience in managing and carrying out engineering/economic analyses of complex energy issues, with particular focus on North American energy commodity movements and pricing, policies and programs. Working jointly with Gas Strategies under Dr. Schlesinger's direction, BSA provided North American (US, Mexico, Canada) market risk analyses for LNG due diligence studies on behalf of lenders to the Tangguh LNG, Peru LNG, Sakhalin LNG, Rasgas II/III LNG, Egypt II LNG and Atlantic LNG Train 4 projects. Beyond this, he has advised over 400 clients in the U.S., Canada, and fifteen other countries, including the top utility, energy trading and producing, manufacturing, regulatory, educational, private power, and financial services companies. A former vice-president of the American Gas Association, Dr. Schlesinger has testified before the U.S. Congress and in 16 states and provinces on the direction of the gas industry, gas contracting, purchase and sales prices, royalty valuations, market value, hedging and risk management, and related industry practices.

EDUCATION

- Stanford University, Stanford, California, M.S. (1969) and Ph.D. (1975), Industrial Engineering, now Department of Management Science and Engineering.

- Dartmouth College, Hanover, New Hampshire, A.B. (1967) and B. Engineering (1968).

EXPERIENCE

1/09-Present PRESIDENT, Benjamin Schlesinger and Associates, LLC. (BSA), Bethesda, Maryland.

- On January 1, 2009, BSA became a part of the Galway Group, L.P. of Houston, Texas. The Galway Group is a team of experienced energy advisors that delivers insightful industry knowledge and practical commercial and operational assistance related to project development and implementation; financing and capital structuring; and market research and analysis to public and private energy interests around the world.

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EDUCATION

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3/84-12/08 PRESIDENT, Benjamin Schlesinger and Associates, Inc. (BSA), Bethesda, Maryland.

- Dr. Schlesinger's consulting experience extends to LNG and pipeline natural gas, liquids, and electricity pricing, supply, contracting, commercial mechanisms, market forecasting and regulatory issues. Major assignments:

  — Conducted for major lenders due diligence assessments and North American gas market forecasting related to importation of liquefied natural gas (LNG) through Atlantic, Gulf Coast and Pacific regasification terminals.

  — Directed BSA's major LNG analysis for the American Gas Foundation, *The Ability of the U.S. to Compete in the Global LNG Marketplace: An Assessment of Challenges and Opportunities*, prepared with Poten & Partners and Altos Management Partners.

  — Analyzed pipeline economics, finance, and market mechanisms for the New York Mercantile Exchange (NYMEX), where he served as a member of the Natural Gas Advisory Committee from 1985-2000

  — Conducted cutting-edge analysis of pipeline financing issues in short-term contract markets, jointly with the Canadian Energy Research Institute (CERI).

  — Assessed historic, prevailing, and projected market values of natural gas and gas liquids in the context of royalty litigation, contract disputes, regulatory proceedings, and utility and industrial gas purchase negotiations throughout North America.

  — Directed energy contract and Sales & Purchase Agreement (SPA) negotiations for gas and electric utilities, power generators, industries and municipal agencies in North America, Europe and Asia.

  — Created and prepared widely-cited multi-client studies of emerging gas and power industry commercial practices, focusing on spot and futures trading risk management, pipeline capacity markets, gas and power marketing and market values, and energy trading.

  — At the UN Economic Commission for Europe, co-founded in 1994 (along with the Russian Federation representative) the center for promotion and development of market-based gas industries in economies in transition, known today as the UN ECE Gas Centre.

  — Developed and/or audited fuel purchasing plans and strategies for more than 100 large-scale independent power projects throughout the Americas, in areas including supply, transportation, distribution, pricing and power competition.

— Instructed since 1990 on energy markets and contracting in the unique "Alphatania" courses hosted by EconoMatters of London. Attendees include leadership of major European and Asian energy firms.

- Dr. Schlesinger has testified as an expert on major gas industry business issues, including the foregoing, for private clients and the gas industry in general before the FERC, the U.S. Congress, Department of Energy, and utility regulators and panels in Alaska, Arizona, California, Connecticut, D.C., Florida, Illinois, Louisiana, Maryland, Massachusetts, Mississippi, New Mexico, Ohio, Ontario, Texas and West Virginia.

7/82-3/84 PRINCIPAL, Booz, Allen & Hamilton, Inc., Bethesda, Maryland.

- Lead consultant in the firm's natural gas industry practice, including direction of gas supply, marketing, and business strategy assignments for gas utilities, pipeline companies, and other private and public clients. Major accomplishments:

  — Together with the Energy Futures Group, Inc. created and conducted a pioneering analysis of natural gas spot markets, trading, and brokerage risks and opportunities for a group of 20 gas pipelines, producers, and utilities.

  — Directed an analysis of worldwide North Slope gas markets and transportation alternatives for the State of Alaska; testified before legislative committee.

  — Prepared energy market competition and supply studies as part of business strategy assignments for three utilities.

- Contributed substantively to Gas Industry Challenges for the 1980's, Booz, Allen's monograph on innovative analysis methods for the utility and pipeline industries in a changing business environment.

2/77-7/82 VICE PRESIDENT, Policy Evaluation and Analysis, American Gas Association (AGA), Arlington, Virginia.

- Responsible for selection, quality and completeness of all AGA energy analyses and special quantitative reports from 1978 to 1982.

- Directed an analysis staff of 26 that produced more than 80 major studies used to underpin all of AGA's government relations, international, marketing and consumer communications (1982 group budget to $1.5 million).Delivered testimony on behalf of the gas pipeline and utility industry in numerous Congressional, Department of Energy, and EPA hearings and proceedings on U.S. energy policy, planning methods, synthetic fuels, and coal and environmental policy formulation.

- As senior staff, Dr. Schlesinger was responsible for AGA's board-level Gas Supply, Demand and Reserves Committees, worked closely with gas pipeline and energy utility executives in formulating policy and preparing forecasts of gas supply, demand and price.

- Promoted to Vice President of AGA in 1978 after 16 months as Direcor, Policy and Economic Analysis.

- Key technical accomplishments: Led macroeconomic analysis of major potential oil supply disruption; created gas-use strategy to reduce air emissions from coal boilers; analyzed coal gasification trade-offs, including air, health and safety.

2/76-2/77 CHIEF ENVIRONMENTAL ENGINEER, Office of Commercialization, Energy Research and Development Administration (ERDA), Washington, D.C.

- Contributed to direction and leadership of a policy and technical nature on all major environmental, health and safety issues related to commercializing coal gasification and liquefaction, oil shale, and biomass energy technologies.

- Worked directly with the Deputy Administrator toward defining ERDA's position on the Clean Air Act Amendments of 1977. Maintained liaison between his office and the EPA, Interior, NIOSH, and the Water Resources Council.

10/74-2/76 Ph.D. and post-doctoral studies at Stanford University, sponsored by the U.S. Geological Survey.

- Completed and refined Ph.D. dissertation on Western coal development at Stanford University, funded by the U.S. Geological Survey, Resource and Land Investigations Program.

- Nominated for IEEE Franklin Taylor Award, 1975.

3/70-6/75 PROJECT ENGINEER, Environmental Services Department, Bechtel Corp., San Francisco, California.

- Supervised economic and environmental analyses, and site assessments for major energy and transportation construction projects ranging in capital cost from $5 million to $4 billion. Managed environmental impact assessments for:

  — 600-mile crude oil pipeline through Quebec and New York state
  — Siting of a full-scale U.S. uranium enrichment plant
  — Proposed 30-mile metrorail in San Juan, Puerto Rico.

- Participated in five nuclear power plant environmental reviews. Developed toxic waste database for the Santa Ana Watershed Planning Agency. Analyzed crop pattern strategy and prepared an industrial development plan for the Setif Region, northern Algeria.

PROFESSIONAL AND CIVIC ACTIVITIES

- Dr. Schlesinger is President for the 2008-2009 fiscal year of the National Capital Area Chapter, U.S. Association for Energy Economics (NCAC-USAEE). The NCAC comprises 200 energy analysts, managers, and related specialists in the greater Washington, D.C. region, and is affiliated with the USAEE and International Association for Energy Economics (IAEE).

- As an Adjunct Professor, Dr. Schlesinger teaches a Spring Semester graduate course in Energy Economics at the School of Public Policy, University of Maryland. He has also lectured on the natural gas industry before courses at Johns Hopkins SAIS, Stanford University, Columbia University, CUNY, University of Pennsylvania, Syracuse University, and more than 200 executive seminars in the U.S., Canada, Mexico, Europe and the United Kingdom, Japan, Russia and the Philippines. He has appeared on Bloomberg News, CNN Business Line, CNN International, and other media, and his opinions and analysis of natural gas industry and related economic developments have been quoted in The New York Times, The Wall Street Journal, The Washington Post, Business Week, and other publications.

- Dr. Schlesinger has served as a member of Advisory Boards to the New York Mercantile Exchange, U.S. Office of Technology Assessment, Gas Research Institute, Solar Energy Research Institute, and the Regional Institute for Children and Adolescents in Rockville, Maryland. Dr. Schlesinger currently serves on the Bethesda Transportation Solutions Advisory Committee. For the Capital District Kiwanis, he is a past Lt. Governor and Membership Chair.

EXPERT WITNESS TESTIMONY

The following is a list of expert witness testimony delivered by Dr. Benjamin Schlesinger in appearances before courts or administrative bodies:

- U.S. Bankruptcy Court, Northern District of Texas (Dallas Division), in 2008, on behalf of McCommas Landfill Gas in Chapter 11 Cases 07-32219-HDH and 07-32222-HDH, regarding natural gas markets and spot and long-term gas prices in Northeastern Texas, and world oil prices.

- Regulatory Commission of Alaska, Anchorage, AK, 2006, for Tesoro Alaska Corporation, in the matter of the gas sales agreement between Enstar Natural Gas Company, a Division of SEMCO Energy Inc., and Marathon Oil Company (U-06-002), re: fair market value of natural gas in Cook Inlet.

- U.S. District Court, Northern District of Texas, Fort Worth, in Mirant bankruptcy proceedings (2005), Case No. 03-46590, on behalf of the Equity Committee, re: natural gas and oil price forecasts.

- Arbitration in Dallas, TX, 2004, for Delta Energy, in Brazos Electric Power Cooperative, Inc. v. Tenaska IV Texas Partners, L.P., re: gas purchases for power generation (Commercial Arb. No. 71 198 00323 01, American Arbitration Assn.).

- Arbitration in Houston, TX, 2001, for Duke Energy v. ExxonMobil, re: energy trading and marketing business, commercial context of joint venture, and industry terms used in contract (American Arbitration Assn. Cause No. 50-T-198-00485-00).

- Arbitration in Washington, DC, 2001, for North Carolina Natural Gas v. Transcontinental Gas Pipe Line, re: monthly fees in firm service agreement and gas spot market volatility.

- Arbitration in Chicago, IL, 2001, for Thelen Reid & Priest, LLP, in Androscoggin Energy, LLC v. Thelen Reid & Priest, LLP, re: damages, mitigation, physical and financial transactions, and value of natural gas and transportation services (No. 51-Y-194-00-108-00).

- Federal Energy Regulatory Commission, 1996, for Koch Gateway Pipeline Company, re: commercial mechanisms in the gas industry, in market-based rates proceeding (Docket No. RP95-362-000).

- U.S. District Court, Huntington, WV, 1996, for Waco Oil & Gas Co. v. NGC Corporation, re: damages, mitigation, and value of natural gas physical and financial transactions (Civil Action No. 1:95-CV-46).

- Federal Energy Regulatory Commission, 1995, for Pacific Gas Transmission, re: competitive benefits of PGT expansion capacity (Docket No. RP94-149-000).

- Arbitration in Massachusetts, 1995, for Dartmouth Power Associates, L.P., re: indexation and filed charges for gas transportation from Canada to the U.S.

- Ontario Energy Board, 1993, for Union Gas Limited, re: EBRO 476-06/Gas Cost Recovery Proceedings.

- Claims mediation proceeding re: Columbia Gas, 1993 and 1995, for Columbia Gas System, re: long-term gas contracting practices and pricing.

- Public Service Commission of Maryland, 1992, for Panda Energy Corporation, re: gas price forecasts and gas industry contracting practices.

- California Public Utilities Commission, 1992, in en banc proceeding on gas procurement, re: risk management in long-term natural gas contracting: practices in the 1990s.

- Florida Public Service Commission, 1991, for Florida Power Corporation, re: Determination of Need for Electrical Power Plant and Related Facilities (Docket No. 910759-EI).

- Federal Energy Regulatory Commission, 1990, in Tarpon Transmission Company (Docket No. RP84-82-004), re: offshore pipelines.

- Arizona Corporation Commission, 1989, for Southwest Gas Corporation (Docket No. U-1551-89-102 and 103), re: marketing fees in gas procurement transactions.

- U.S. District Court for State of Mississippi, 1988, for Piney Woods Country Life School in Piney Woods v. Shell Oil Company, re: market value of natural gas (Case No. 89-4397).

- Department of Public Utility Control, State of Connecticut, 1987, for O'Brien Energy Systems and ANR Venture Management, re: Connecticut Natural Gas's proposed transportation rate (Docket No. 87-08-20).

- Public Service Commission of Maryland, 1987, for Baltimore Gas & Electric, re: gas price forecasts (Case No. 8053).

- Arbitration in Louisiana, 1987, for Panhandle Eastern Pipeline Company, re: gas supply contract prices.

- Federal Energy Regulatory Commission, 1987, for Transcontinental Gas Pipe Line Corp., re: prudence of take-or-pay contracts (RP87-7-000).

- Federal Energy Regulatory Commission, 1987, for Trunkline Gas Co., re: prudence of take-or-pay contracts (RP87-15-000).

- Federal Energy Regulatory Commission, 1987, for Williston Basin PL, re: prudence of take-or-pay contracts (CP82-487-000).

- Federal Energy Regulatory Commission, 1986, for Panhandle Eastern PL, re: affiliate marketers (CP86-232-000, et al).
- Federal Energy Regulatory Commission, 1986, for Southern Natural Gas, re: prudence of take-or-pay contracts (RP86-63-000).
- Federal Energy Regulatory Commission, 1985, for Trunkline LNG Co., re: prudence of take-or-pay contracts (RP81-85-000).
- Federal Energy Regulatory Commission, 1985, for Panhandle Eastern, re: prudence of take-or-pay contracts (TA84-1-28-002).
- Federal Energy Regulatory Commission, 1985, for Trunkline Gas Co., re: prudence of take-or-pay contracts (RP83-93-000).
- Arbitration proceedings in Louisiana and Texas, 1985-1986, for Columbia Gas Transmission Co., re: market value of gas.
- Public Utilities Commission of Ohio, 1984-1985, for Columbia Gas of Ohio, re: gas cost recovery issues and supply planning (84-6-GA-GCR).
- U.S. Bankruptcy Court, Houston, TX, 1984, for Natural Gas Clearinghouse, re: gas spot markets.
- Public Service Commission of New Mexico, 1984, for N-Ren Corp., re: industrial service rates (Case No. 1824).

PUBLICATIONS, PAPERS, ARTICLES

More than 200 articles, speeches, and reports on gas supply/demand and pricing policy, coal gasification, environmental impacts, and LNG, including papers recently published in (or delivered at):

"How Will The Economic Crisis Affect Natural Gas Prices?" Natural Gas and Electricity Journal, January 2009

"Can Cross-Atlantic Gas Price Arbitrage Explain LNG Import Levels?" Natural Gas and Electricity Journal, December 2007

"Oil-Gas Price Linkage - Situation from the North American Perspective," Gas Matters, London – July 2007

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Executive Enterprises, Inc., Natural Gas Futures Conference, Risk Management for the Natural Gas Industry on Commoditization of North American Gas Markets: Trading Gas - Trading Capacity; Houston, Texas - September 30, 1993.

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Chapter 87: § 87.02 Natural Gas Markets and Trading, Benjamin Schlesinger, Ph.D., Energy Law and Transactions, Matthew Bender & Company, 1991 et. seq.

Oil and Gas Analyst - (1983)

The Energy Journal; co-edited special gas energy issues volume - 1982 and 1983

Environmental Science and Technology - 1980

PRESENTATIONS, TALKS, OPEN CLASSES

"Carbon Capture and Sequestration and Enhanced Oil Recovery - Breaking the CCS-EOR Barrier," Society of Petroleum Engineers, National Capital Section, Arlington, VA – February 19, 2009

"CCS from Coal to Pipelines to Enhanced Oil Recovery: A Primer," 28th USAEE North American Conference, New Orleans – December 4, 2008

Outlook for Natural Gas Prices: Credit Markets and Liquidity, New York Energy Forum, November 11, 2009

A Perspective on the US Federal System and Implications for Regulatory Structures and Markets in Natural Gas and Electricity, Center for Energy, Marine Transportation and Public Policy Columbia University School of International and Public Affairs (SIPA), New York – October 6, 2008

Background: Natural Gas and Petroleum Market Prices, Energy and Environmental Lenders Group, Washington, DC – October 3, 2008

"Mitigating Risks in Gas Storage Development – Markets, Pricing and Strategy," The Canadian Institute Natural Gas Storage Conference, Toronto – October 1, 2008

"Developments in Northeast US and their Impact on Atlantic Canada," The Canadian Institute Atlantic Energy Conference, Halifax, NS – May 29, 2008

Natural Gas and LNG Update, Johns Hopkins University SAIS Energy Seminar, Washington, DC – November 2007

"North American Gas Pricing Effects of LNG Trade - Seasonal Market Entry," 27th USAEE/IAEE North American Conference, Houston, September 18, 2007

Gas Prices – LNG and the North American Basis Gradient, Platts 6th Annual LNG Conference Hilton Houston Post Oak, Houston – May 21, 2007

16th Annual North American Natural Gas & Power Markets Conference and Trade Show Toronto – May 1, 2007

The Coming Natural Gas Industry Transformation, INGAA Foundation Midyear Meeting Hyatt Regency Lost Pines Resort, Austin, TX - April 26-27, 2007

North American Natural Gas – Pricing, Infrastructure and the Impacts of LNG, Program in International Energy Management and Policy, Center for Energy, Marine Transportation, and Public Policy, School of International and Public Affairs, Columbia University, March 22, 2007

Development of Global Gas Markets – LNG as the Catalyst, Canadian Energy Research Institute (CERI) North American Gas Conference, Calgary – March 5, 2007

Update on North American Energy Markets: January 2007, UNECE Working Party on Gas Geneva - January 23, 2007

Natural Gas Prices - The Deep Volatility is Back, GasFair PowerFair 2007

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Summer 2006 Gas Market Update: Supplies Up, Demand Down - Hey, Price Works!, 5th Annual Atlantic LNG & CNG Symposium, Halifax – July 19, 2006

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North American Natural Gas Market Outlook: Crossroads, CIBC Annual Commodity Products Conference, Banff Springs Hotel – May 4, 2006

North American Natural Gas Market Outlook: Shifting Sands, GasFair PowerFair 2006 Toronto – April 19, 2006

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Market Update: "How Well Will New LNG Projects Feed Growing Gas Demand?" Winter 2006 Atlantic LNG & CNG Symposium, Halifax – February 27, 2006

"Natural Gas Outlook: What's Reasonable?" The Energy Forum, New York – February 21, 2006

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Natural Gas and LNG Update: Surviving the Next 2-5 Years, Johns Hopkins University SAIS Energy Seminar, Washington, DC – December 14, 2005

LNG and Natural Gas Markets: Economics and More, Hart's 2nd Annual Global LNG Outlook October 26-27, 2005, Renaissance Hotel, Greenway Plaza, Houston, TX

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LNG in Eastern Canada and New England: Market Update, Atlantic LNG & CNG Symposium Halifax – June 27, 2005

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LNG: Back to the Future, Promises and Pitfalls. IAEE-NCAC Evening Energy Briefing Washington – March 18, 2004

Increasing LNG Competition: Project Developments and Impacts on Rocky Mountain Gas, 3rd Annual Rocky Mountain Gas Symposium, Denver – February 12, 2004

Outlook for Gas and Power Markets, 2nd Annual Gas and Power Institute, University of Texas School of Law, Houston – November 7, 2003

North American Gas Market Issues – Life After the Crash, 12th Annual North American Natural Gas & Electricity Markets Conference & Trade Show, August 18-19, 2003 – Toronto, Ontario, Canada

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Toronto, April 20, 1999

Changing Gas Market Mechanisms in North America: Update and Issues, IV IEA International Conference on Natural Gas, Ritz-Carlton Cancun, Mexico, December 6, 1999

Gas Daily Northeast Gas Conference; Boston, June 9-10, 1993

Gas Daily, SE/Mobil Bay Gas Conference; New Orleans, February 3-4, 1993

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Gas Expo 92', Gas Inc.; Las Vegas, January 29, 1992

Gas Daily, Financing IPPs and Cogeneration; Houston, December 3, 1991

EPRI Fuel Supply Seminar; Albuquerque, New Mexico, October 10, 1991

Gas Daily, Competing in the European Energy Market; Vienna, Austria - May 30-31, 1991

Gas Daily, First Natural Gas Vehicles Conference; Chicago, April, 1991

Gas Daily, Southeast/Mobile Bay, Orlando, Florida - December 3-4, 1990

Gas Daily, LNG: Building Markets for the 90's, Washington, D.C. - November 1-2, 1990

Gas Daily's Third Annual European Natural Gas Conference, "Competing in the European Gas Market: The Birth of a Single Energy Market?," London, May 31-June 1, 1990

Gas Daily, Gas Storage Strategies; Houston, April 17-18, 1990

Gas Daily, Natural Gas & the Environment, Washington, D.C., January 18-19, 1990

Gas Daily, Gas Transportation; Houston, January 11-12, 1990

Gas Daily, Gas Futures Trading; Houston, January 8-9, 1990

Gas Daily, Gas Buyers' Guide Conference: 1991: "Removing Internal Trade Barriers--Who Will Be the Winners and Losers in Energy?, " Zaventem, Belgium - June 8-9, 1989

International Association of Energy Economics, Natural Gas Market Outlook: Recontracting for the 1990s; Houston, Texas - Fall 1988

Gas Daily European Energy Privatization and Deregulation; Amsterdam, Holland - September 22-23, 1988

Ninth International Conference of the International Association of Energy Economists, "World Energy Markets: Coping with Instability", Calgary, July 8, 1987

The Seventh Annual Natural Gas Conference Executive Enterprises, Inc.; Washington, D.C. - January 26, 1987

Executive Enterprises Conference on Natural Gas Contracting Issues and Litigation in the Wake of Order 436; Houston, April 8, 1986

Executive Enterprises, Inc. Fourth Annual Natural Gas Policy, Pricing, and Marketing Conference; Washington, D.C. - January 23-24, 1984

Conferences sponsored by the Oil Daily, Inside Oil and Gas, Executive Enterprise and the Energy Bureau - (1981-84)

Natural Gas Association of Oklahoma - October, 1983

McGraw-Hill/Inside FERC Conference on Natural Gas: Making the Transition to Competitive Markets; New Orleans, April 12, 1983

Paine-Webber gas producers conferences - (1982 and 1983)

American Enterprise Institute Conference on Gas Decontrol Issues - 1982

New Jersey Bar Association, 1981

11th World Energy Conference, Munich, Germany - 1980

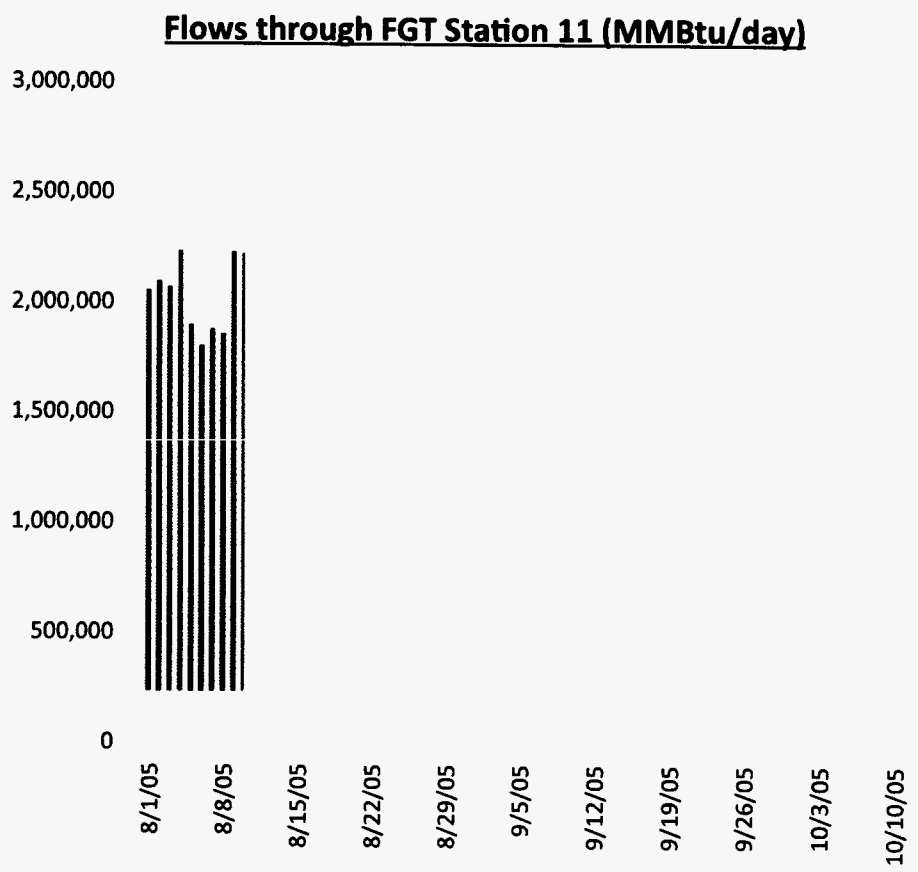
Hoover Institution/SE_2 Colloquium on Contingency Planning for an Energy Emergency - 1980

Power Engineering (roundtable with Sen. James McClure, Rep. Mike McCormick, and others - 12/79)

EXHIBIT BSA-2 IS CONFIDENTIAL

Flows through FGT Station 11 During Hurricanes Rita and Katrina, Summer 2005

Gas Date	Flows through FGT Station 11
8/1/05	2,039,147
8/2/05	2,082,167
8/3/05	2,055,996
8/4/05	2,217,297
8/5/05	1,882,402
8/6/05	1,786,889
8/7/05	1,863,584
8/8/05	1,841,565
8/9/05	2,213,219
8/10/05	2,207,369
8/11/05	2,292,579
8/12/05	2,322,483
8/13/05	2,080,595
8/14/05	2,087,926
8/15/05	2,133,711
8/16/05	2,283,851
8/17/05	2,438,076
8/18/05	2,350,582
8/19/05	2,181,291
8/20/05	2,192,542
8/21/05	2,204,428
8/22/05	2,427,690
8/23/05	2,407,227
8/24/05	2,389,566
8/25/05	2,404,742
8/26/05	1,921,915
8/27/05	1,961,461
8/28/05	1,865,564
8/29/05	1,656,872
8/30/05	1,994,633
8/31/05	1,968,813
9/1/05	1,861,174
9/2/05	1,825,633



BSA Inc., from FGT data.

6/18/09

Flows through FGT Station 11 During Hurricanes Rita and Katrina, Summer 2005

9/3/05	1,578,997
9/4/05	1,451,232
9/5/05	1,547,482
9/6/05	1,534,698
9/7/05	1,460,598
9/8/05	1,483,935
9/9/05	1,590,733
9/10/05	1,721,376
9/11/05	1,814,608
9/12/05	1,871,587
9/13/05	2,151,957
9/14/05	2,088,971
9/15/05	1,898,816
9/16/05	2,033,484
9/17/05	2,079,364
9/18/05	2,119,025
9/19/05	2,132,078
9/20/05	1,884,396
9/21/05	1,678,718
9/22/05	1,555,537
9/23/05	1,414,266
9/24/05	1,393,368
9/25/05	1,488,918
9/26/05	1,560,220
9/27/05	1,471,465
9/28/05	1,380,251
9/29/05	1,464,812
9/30/05	1,526,735
10/1/05	1,603,529
10/2/05	1,637,303
10/3/05	1,641,497
10/4/05	1,664,679
10/5/05	1,289,080
10/6/05	1,474,507
10/7/05	1,639,258

Flows through FGT Station 11 During Hurricanes Rita and Katrina, Summer 2005

10/8/05	1,599,145
10/9/05	1,597,352
10/10/05	1,843,937
10/11/05	2,009,688
10/12/05	1,896,845
10/13/05	1,816,402
10/14/05	1,832,919
10/15/05	1,591,662

Flows through FGT Station 11 During Hurricanes Rita and Katrina, Summer 2005

Rita

Flows through FGT Station 11 During Hurricanes Rita and Katrina, Summer 2005

Flows through FGT Station 11 During Hurricanes Rita and Katrina, Summer 2005

Notice ID: 2343337	**Notice Type:** Other	**Post Date/Post Time:** 01/22/2009 08:53:10 CST
Critical Indicator: N	**Post Expiration Date/Time:** 03/25/2009 00:00:00 CDT	**Notice Status:** Initiate
Prior Notice ID: 0	**Notice Eff Date/Eff Time:** 01/22/2009 08:53:10 CST	**Notice End Date/End Time:** 02/26/2009 00:00:00 CST
Rsp Date/Rsp Time:	**Reqrd Rsp:** NONE - DEFAULT	

Date: January 22, 2009

To: All Transcontinental Gas Pipe Line Company, LLC Shippers, Potential Shippers, Customers and Interested Parties

Re: Open Season for Mobile Bay South II Expansion

Transcontinental Gas Pipe Line Company, LLC ("Transco") is pleased to announce that it is holding a non-binding open season for up to 550,000 dekatherms per day (dt/d) of year-round firm transportation service to be made available on Transco's Mobile Bay Lateral from Transco's Station 85 Pool near Butler in Choctaw County, Alabama to the point of interconnection between Transco and Gulfstream Natural Gas System, L.L.C. in Coden, Mobile County, Alabama, under Transco's proposed Mobile Bay South II Expansion ("Expansion"). The proposed in-service date for the Expansion will be as early as May 1, 2011.

The open season will commence at 9:00 a.m. CDT on Thursday, January 22, 2009 and end at 5:00 p.m. CDT on Thursday, February 26, 2009.

The firm transportation service will be performed under Transco's Rate Schedule FT and Part 284(G) of the Federal Energy Regulatory Commission's ("FERC") regulations. Shippers under the Expansion will pay the maximum Rate Schedule FT reservation rate and commodity rate applicable to firm transportation service under the project, as such rates may change from time to time. In addition, all applicable maximum reservation and commodity surcharges, electric power charges and fuel retention applicable under Rate Schedule FT, as amended from time to time, will apply. At this time, based on the estimated cost of service associated with the Expansion facilities needed to provide the Expansion capacity, Transco anticipates that the Expansion will be rolled-in and therefore, the maximum rates applicable to the Expansion will be the maximum daily firm reservation rate and commodity rate under Rate Schedule FT for Zone 4A to 4A transportation, as such rates may change from time to time. However, if the calculated maximum rates for the Expansion, based on the final design and cost of the Expansion facilities, exceed the maximum rates for Zone 4A to 4A transportation under Rate Schedule FT, then the maximum rates will be based on the incremental cost of the Expansion.

Shippers wishing to subscribe to the firm transportation capacity under the Expansion must provide to Transco before the close of the open season, as stated above, the following:

1. A completed Transportation Service Request form (attached), which must include the total capacity requested by the shipper, the desired receipt and delivery point(s), and the primary term of the transportation service agreement; provided, however, that any requests for service with a primary term shorter than fifteen (15) years may be rejected by Transco on a not unduly discriminatory basis; and

2. Evidence to demonstrate creditworthiness (Credit Application Form attached).

Timely receipt by Transco of a properly completed Transportation Service Request form and necessary creditworthiness information during the specified open season period shall constitute a Complete Request. Only those shippers who participate in this open season by submitting a Complete Request will be eligible for inclusion in the Expansion. Transco reserves the right to reject any requests for

service on a not unduly discriminatory basis.

In the event the total capacity requested during the open season for the entire project or at any of the receipt or delivery points exceeds the planned scope of the project, Transco, in its sole discretion, may 1) allocate capacity in the project and/or 2) consider increasing the scope of the project. If an allocation of capacity is required, then the available firm transportation capacity will be allocated first to shippers requesting the longest primary term, with capacity among shippers requesting the same primary term being allocated pro rata based on the capacity requested. In no event may a potential shipper's requested capacity exceed the capacity being offered under the Expansion.

Upon completion of Transco's evaluation of the Complete Requests and any necessary allocation(s) of capacity, Transco will provide a precedent agreement for firm transportation service under the Expansion to each potential shipper who has submitted an acceptable Complete Request. Shippers must promptly execute and deliver the precedent agreements in order to participate in the Expansion.

If you have any questions regarding the Expansion, please contact Toi Anderson at (713) 215-4540.

Transcontinental Gas Pipe Line Company, LLC
Open Season - Mobile Bay South II Expansion
Transportation Service Request

Send to: Transcontinental Gas Pipe Line Company, LLC
2800 Post Oak Blvd.
P. O. Box 1396
Houston, Texas 77251-1396
Attn: Market Development
Facsimile: (713) 215-4595

(1) Shipper's Name and Address: (Note: Shipper is the party proposing to execute the Service Agreement with Transco)

_____
_____
_____

(2) Total quantity requested (dt/d): _____

(3) Minimum acceptable quantity (dt/d): _____

(4) Requested Points of Receipt and Delivery and Requested Quantity:

Receipt Point:	Delivery Point:	Quantity (dt/d):	Minimum Acceptable Quantity (dt/d) (in case a pro rata allocation is necessary):
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(5) Term: Shipper requests a Primary Contract Term of _____ years and _____month(s). Any requests for service with a primary term shorter than fifteen (15) years may be subject to rejection by Transco on a non-discriminatory basis.

(6) Identity of Shipper (Local Distribution Company, Intrastate Pipeline, Hinshaw Pipeline, Interstate Pipeline, Marketer, Producer, End User, Other):_____

(7) The specific affiliation of the Shipper with Transco, and the extent of Transco's affiliation, if any, with the entity to be provided transportation service: _____

(8) Credit Evaluation: Credit Application Form (attached) must be completed.

(9) Shipper hereby certifies that it has title to the gas to be transported or the right to acquire title to such gas and has entered into or will enter into all necessary arrangements to ensure that all upstream and downstream transportation will be in place prior to commencement of service.

SHIPPER UNDERSTANDS AND AGREES THAT THIS REQUEST MAY BE ACCEPTED OR REJECTED BY TRANSCO.

THIS TRANSPORTATION SERVICE REQUEST IS HEREBY SUBMITTED:

By:_____

Title:_____

Company:_____

Telephone Number:_____

Date:_____

Transcontinental Gas Pipe Line Company, LLC
Credit Application Instructions

Dear Prospective Customer,

Effective September 1, 2005, the FERC adopted the NAESB Creditworthiness Standards. As a result Transportation Service Providers (TSPs) are now required to request and provide certain information relating to a Service Requesters (SRs) creditworthiness. In order for the TSP to be able to perform the mandatory creditworthiness review it is required that you to provide the following items:

- Completed Credit Application.
- Current interim financial statements of applicant. (Requests for financial information will occur on a continuing basis.)
- The most recent two years of the annual audited financial statements of the applicant and/or the parent company if appropriate. If audited statements are not available an officer must provide a written attestation to the validity of the statements provided.
- The most recent 10K of the applicant and/or parent company If appropriate.
- Three trade references.
- Provide contact information for up to two (2) Credit representatives (must provide email addresses for notifications) on the following application

Thank you for your cooperation. Please send all requested information to Whitney Wiener at the address listed below. In addition, if you have any questions, you may contact:

Whitney Wiener
Lead Credit Analyst
Transcontinental Gas Pipe Line Company, LLC
2800 Post Oak Blvd
Houston, TX 77056
Whitney.H.Wiener@williams.com
713-215-3088 (direct)
713-215-3645 (Credit Hotline)

Leldon Walenta
Manager, Treasury Services
Transcontinental Gas Pipe Line Company, LLC
2800 Post Oak Blvd
Houston, TX 77056
WGPHOUTreasury-Credit@williams.com
713-215-2569 (direct)
713-215-3645 (Credit Hotline)

Note: All financial information will be kept confidential and will only be used for the determination of creditworthiness. If you require, a Confidentiality Agreement can be executed.

Transcontinental Gas Pipe Line Company, LLC

Credit Application

Estimated begin date for transportation service _____

Type of service to be requested _____

Parent will be responsible for credit ☐ **YES** ☐ **NO**
Parent Guaranty template requested ☐ **YES** ☐ **NO**

- **Applicant**
  - Company Name _____
  - Address _____
  - _____
  - _____
  - Area Code & Phone Number _____
  - Federal Tax ID Number _____
  - DUNS Number _____
- **Financial / Credit Contact**
  - Name/Title _____
  - Address _____
  - _____
  - _____
  - Area Code & Phone Number _____
  - E-mail Address _____

- **Parent Company of Applicant (*If Appropriate*)**
  - Company Name _____
  - Address _____
  - _____
  - _____
  - Area Code & Phone Number _____
  - Federal Tax ID Number _____
  - DUNS Number _____
- **Financial / Credit Contact**
  - Name/Title _____
  - Address _____
  - _____
  - _____
  - Area Code & Phone Number _____
  - E-mail Address _____

- **Applicant Bank Reference**
  - Bank Name _____
  - Address _____
  - _____
  - _____

Account Officer	
Area Code & Phone Number	

Date Prepared	Prepared by (Type or Print)	Title	Area Code and Phone N

COMPARISON OF COMBINED COMPANY E/FES PROPOSAL VERSUS COMPANY B PROPOSAL
(BOTH ASSUMED TO ORIGINATE AT TRANSCO STATION 85), $/MMBU

	FES PIPELINE BASE CASE RATES	COMPANY E PROPOSED RATES	COMPANY E/FES RATE	COMPANY B PROPOSED RATE	MOBILE BAY LATERAL RATE	COMBINED COMPANY B RATE FROM STATION 85
2014	$1.32	[redacted]	[redacted]	1.68	0.09	1.77
2015	$1.27			1.68	0.09	1.77
2016	$1.22			1.68	0.09	1.77
2017	$1.17			1.68	0.09	1.77
2018	$1.13			1.68	0.09	1.77
2019	$1.08			1.68	0.09	1.77
2020	$1.04			1.68	0.09	1.77
2021	$1.00			1.68	0.09	1.77
2022	$0.96			1.68	0.09	1.77
2023	$0.82			1.68	0.09	1.77
2024	$0.75			1.68	0.09	1.77
2025	$0.74			1.68	0.09	1.77
2026	$0.60			1.68	0.09	1.77
2027	$0.57			1.68	0.09	1.77
2028	$0.54			1.68	0.09	1.77
2029	$0.52			1.68	0.09	1.77
2030	$0.50			1.68	0.09	1.77
2031	$0.49			1.68	0.09	1.77
2032	$0.47			1.68	0.09	1.77
2033	$0.46			1.68	0.09	1.77
2034	$0.44			1.68	0.09	1.77
2035	$0.43			1.68	0.09	1.77
2036	$0.41			1.68	0.09	1.77
2037	$0.40			1.68	0.09	1.77
2038	$0.38			1.68	0.09	1.77
2039	$0.37			1.68	0.09	1.77
2040	$0.35			1.68	0.09	1.77

2041	$0.34	[redacted]	[redacted]	1.68	0.09	1.77
2042	$0.33			1.68	0.09	1.77
2043	$0.32			1.68	0.09	1.77
2044	$0.30			1.68	0.09	1.77
2045	$0.29			1.68	0.09	1.77
2046	$0.28			1.68	0.09	1.77
2047	$0.27			1.68	0.09	1.77
2048	$0.26			1.68	0.09	1.77
2049	$0.25			1.68	0.09	1.77
2050	$0.24			1.68	0.09	1.77
2051	$0.23			1.68	0.09	1.77
2052	$0.22			1.68	0.09	1.77
2053	$0.21			1.68	0.09	1.77
20-YEAR LEVELIZED RATE	$0.96			$1.68	$0.09	$1.77

SYSTEM COMPARISON - 100% LOAD FACTOR RATES

COMPANY B FROM STA. 85	$1.77
COMBINED E/FES	[redacted]

SYSTEM COMPARISON - RATES IF 400,000 MCF/DAY IS TRANSPORTED

COMPANY B FROM STA. 85	$1.77
COMBINED E/FES	[redacted]

REFERENCES

FES PROPOSED RATES FROM EXHIBIT HCS-2, PAGES 2-10.
COMPANY B AND E RATES FROM COMPANY PROPOSALS.
MOBILE BAY RATE FROM FERC APPROVAL, EXHIBIT MTL-7, FOOTNOTE 15, PAGE 7.
DISCOUNT RATE OF 8.35% EQUALS FPL'S COMBINED COST OF CAPITAL, FROM EXHIBIT JEE-9.