BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 070650 -EI
FLORIDA POWER & LIGHT COMPANY

IN RE: FLORIDA POWER & LIGHT COMPANY'S PETITION TO DETERMINE NEED FOR TURKEY POINT NUCLEAR UNITS 6 AND 7 ELECTRICAL POWER PLANT

DIRECT TESTIMONY & EXHIBIT OF:

ARMANDO J. OLIVERA

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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DOCKET NO. 07_____-EI

OCTOBER 16, 2007

Q. Please state your name and business address.

A. My name is Armando J. Olivera. My business address is 700 Universe Boulevard, Juno Beach, Florida 33408.

Q. By whom are you employed and what is your position?

A. I am the President of Florida Power & Light Company (FPL or the Company).

Q. Please describe your duties and responsibilities in that position.

A. I have overall responsibility for the operations of the Company.

Q. Please describe your educational background and professional experience.

A. I have a Bachelor of Science degree in Electrical Engineering from Cornell University and a Master of Business Administration from the University of Miami. I am also a graduate of the Professional Management Development program of the Harvard Business School. I was named President of FPL in 2003. My professional background is described in more detail in Exhibit AJO-1.

Q. Are you sponsoring an exhibit in this case?

A. Yes. I am sponsoring Exhibit AJO-1, which is attached to my direct testimony.

Q. What is the purpose of your testimony?

A. FPL is proposing to develop, as an important electric generation option for our customers, new nuclear generation to be added to FPL's system at the Turkey Point facility near Homestead, Florida, located in Miami-Dade County. FPL is seeking a determination of need for this project. My testimony provides an overview of FPL's request, and briefly addresses some of the key considerations underlying this project. Such considerations include: the importance of this project in achieving meaningful reductions in CO_2 and other "greenhouse gas" (GHG) emissions; the significant challenges we face in meeting the growing demand for electricity in the state of Florida; the need for system fuel diversity; the economic uncertainties and other risks associated with this project compared to other types of projects; how these considerations should affect the selection of the best resource options to meet Florida's expanding energy and capacity needs; and the critical importance of continued government and regulatory support for the development of new nuclear generation in this state.

Q. Please summarize FPL's request in this case.

A. This filing is the first step that must be taken in order to preserve new nuclear generation as a potential resource option for the period beginning in 2018. Between 2011 and 2020, FPL will need about 8,350 MW of firm capacity resources to continue to meet its reliability criteria. This large capacity need supports new nuclear power generation of between 2,200 MW to 3,040 MW, in combination with other generation, including as much renewable capacity, conservation and load control programs as are optimistically foreseeable. FPL is

requesting approval to pursue the option of constructing up to 3,040 MW of new nuclear generation, with the actual generating capacity of the units and the plant to be determined by FPL and approved by the Commission through the annual project and prudence review process, as project development continues, and as the most advantageous technology and size of units are determined. These units are proposed to be constructed at the existing Turkey Point site near Homestead, Florida and are referred to in FPL's Petition for a Determination of Need and supporting materials as FPL Turkey Point Nuclear Units 6 & 7 (Turkey Point 6 & 7 or the Project). To preserve the potential for 2018-2020 in-service dates for the Project, the earliest practical deployment schedule, substantial advance payments for long-lead procurement items will be required beginning in 2008. In connection with this determination of need, FPL is also requesting Commission confirmation that these advance payments made prior to the completion of the Project's site clearing work are reasonable, that they are properly characterized as "pre-construction costs," and will be recovered pursuant to the mechanism provided in the Commission's Nuclear Power Plant Cost Recovery Rule, Rule 25-06.0423, F.A.C.

Q. Please summarize the reasons that favor approval of FPL's request for a determination of need.

A. As discussed by witnesses on behalf of FPL, Turkey Point 6 & 7 will offer several important benefits, including the following:

- Providing the best available alternative for promoting fuel diversity within FPL's generation portfolio for the relevant period (Silva, Sim);

- Providing greater system reliability (Silva, Yupp);
- Mitigating the effect of volatility in natural gas prices (Silva, Yupp);
- Representing an important and significant step toward achieving greater U.S. energy independence from reliance on fuel sources in the Middle East and other volatile regions (Yupp);
- Reducing FPL's emissions per megawatt, including CO_2, for FPL's system on an average megawatt basis, playing a large and indispensable role in achieving meaningful reductions in GHG emissions (Sim, Kosky, Silva, Reed);
- Providing what is currently projected to be the best economic choice to meet future capacity needs (Sim).

Q. Have Florida policy makers recognized the need to encourage fuel diversity?

A. Yes. Actions have been taken recently at the state government level to endorse and encourage the development of a more diverse mix of fuel sources and technologies to be used in Florida's energy future. Two such major actions are as follows:

- Florida's Energy Plan, issued on January 17, 2006, emphasizes the importance of fuel diversity and avoiding reliance on any one fuel type such as natural gas.
- The Florida Legislature, as part of the 2006 Florida Energy Act (FEAct 2006), amended Section 403.519, Florida Statutes, to explicitly require the Commission to consider "the need for fuel diversity and supply reliability"

when making its determination of need for new electricity generating capacity.

While the Commission has always taken fuel diversity into account in approving new generation in the state of Florida, these recent actions have underscored the importance of fuel diversity and the increased emphasis on this subject as a matter of public policy.

Q. Have Florida policy makers recognized new nuclear power as an important component in an effort to maintain, if not improve, fuel diversity?

A. Yes. Also as part of the FEAct 2006, the Florida Legislature made significant changes to the siting process for a nuclear-fueled power plant with a view to facilitating the construction of new nuclear generation in the state. The legislation also added specific provisions to provide greater assurance with respect to the recovery of costs. These actions recognize the importance of nuclear generation for fuel diversity and system reliability and were designed to encourage utility investment in new nuclear power plants in Florida.

Likewise, this Commission has encouraged the development of nuclear generation in adopting the Nuclear Power Plant Cost Recovery Rule.

Further, this Commission expressed strong interest in new nuclear generation during the course of its deliberations over the FPL Glades Power Park advanced, clean-coal technology project, strongly suggesting the importance of finding

alternate resources to bridge to the point at which new nuclear capacity can be brought on line.

Q. Have Florida policy makers also recognized new nuclear power as an important element in the effort to reduce GHG emissions, particularly CO_2?

A. Yes. Governor Charlie Crist recently signed Executive Order No. 07-127, targeting significant reductions in the levels of GHG. Regardless of the specifics of any such program or regulation that may be instituted in Florida, it is clear that Florida utilities will need enormous amounts of non-GHG emitting generating capacity in order to keep pace with Florida's growth, while at the same time achieving any significant reduction in GHG emissions such as CO_2. As discussed by several FPL witnesses in this proceeding, including Messrs. Silva, Sim, and Reed, nuclear generation is the single most important resource option in achieving these two objectives in parallel.

Governor Crist and his administration have acknowledged the significant role of nuclear power in Florida's energy future. In discussing renewable energy at the July 2007 Summit on Global Climate Change in Miami, Governor Crist identified solar, wind, and nuclear power as resource options that he believes should be part of an overall program to achieve meaningful GHG reductions. Specifically, with respect to nuclear power, he stated, "I think it's just as important....It's clean, it produces a lot of juice." *Crist's Nuclear Bolt Sends Flutters*, St. Petersburg Times, July 15, 2007, at 1A. Mike Sole, Secretary of Florida's Department of Environmental Protection, has reiterated the governor's position on nuclear

power, stating: "Nuclear is without question a great solution to powering Florida without creating greenhouse gas emissions." Id. More recently, Mr. Sole was quoted as saying "Nuclear is a fantastic fuel source to reduce air emissions." *Florida must overcome obstacles on way to a cleaner, greener future*, South Florida Sun-Sentinel, September 30, 2007, at p.1 of the South Florida Local Section.

Q. Does FPL support policy makers' objectives for fuel diversity as well as the Governor's desire to reduce GHG emission reductions?

A. Yes. FPL fully supports the Governor and policy makers in Florida with respect to their desire for fuel diversity and to reduce GHG emissions. Further, as I indicated, and as explained by other witnesses, FPL also agrees that nuclear generation is absolutely essential as a resource option if any meaningful reductions in GHG emissions are to be achieved. Approval of FPL's petition is an important first step toward achieving these objectives.

Q. Does nuclear generation provide an advantage over fossil-fueled generation from the standpoint of the industry moving towards a "carbon-constrained" environment?

A. Yes. As FPL witness Kosky notes in his testimony, in the U.S. to date there has not yet been a cost formally assigned in the market or through regulation for emission of CO_2. Various forms of legislation have been proposed before Congress which would have the effect of pricing carbon emissions for at least portions of the economy, including power generation. Effectively, to the extent the costs of CO_2 and other GHG emissions are explicitly required to be factored

into resource planning decisions, and as other fossil-fuel generation options begin to bear those costs, nuclear generation will compare more favorably to those other generation options. Thus, while the extent of CO_2 costs and the influence on natural gas price is unknown, the costs associated with any regulation of CO_2 emissions and the resulting increase in natural gas costs improve the relative economics of Turkey Point 6 & 7.

Q. Have other states indicated strong support for the development of new nuclear generation?

A. Yes. A number of states have expressed their support for nuclear power and the construction of nuclear power plants. This support is broad based. States, such as South Carolina, South Dakota, and Louisiana have publicly supported nuclear generation through passing resolutions that call for additional research, development, and construction of nuclear power plants. Additionally, the Kansas House of Representatives has passed a bill approving property tax exemptions as an incentive to encourage construction or expansion of nuclear generating facilities. Calvert County, Maryland has authorized property tax credit incentives for Constellation Generation group to encourage the construction of a new nuclear reactor. The Georgia State Senate is urging electric utilities to consider building new nuclear power plants in Georgia because they "produce electricity at a stable price at high levels of safety and reliability, while emitting no greenhouse or acid rain gases." More recently, the North Carolina Public Service Commission concluded that it was appropriate for Duke Power Company (Duke) to incur up to $125 million in pursuing preliminary siting, design and licensing of a proposed

nuclear station to ensure that nuclear generation remains an available resource option for Duke's customers. I expect we will see many more such initiatives around the country as the need and competition for new nuclear plants becomes more pronounced.

Q. Is Florida's public policy in support of new nuclear consistent with public policy on the federal level?

A. Yes. As FPL witness Scroggs indicates in his testimony, the Federal Energy Policy Act of 2005 provided strong signals of increasing national support for the development of new nuclear generation as an important resource option and necessary part of planning for the country's energy future. More recently, the Department of Energy (DOE) and the Nuclear Regulatory Commission (NRC) expanded cooperation for President Bush's Global Nuclear Energy Partnership (GNEP) through a Memorandum of Understanding to increase cooperation between the two agencies on nuclear engineering studies and technological research. GNEP's mandate is to expand the use of clean, affordable nuclear power to meet the growing worldwide demand for energy.

Q. In addition to public policy support on both the state and federal levels, is there strong public support for the construction of new nuclear generation?

A. Yes. Public support is aligned with governmental support at all levels. Rasmussen Reports, an independent public opinion polling firm, conducted a survey in September 2006 and determined that, given a choice, "55% prefers building new nuclear power plants rather than relying on oil from the Middle East. Only 14% would reject the nuclear plants and opt to continue foreign oil

dependency." This survey also found that 73% of Americans indicate that it is "very important" that the United States become less dependent on oil imports.

Fully 81% of the public believe that nuclear energy will play an important role in meeting future electricity needs, according to a survey conducted in September 2006 for the Nuclear Energy Institute by Bisconti Research, Inc. In fact, three out of four people surveyed (76%) agree that electric utilities should prepare now so that new nuclear power plants could be built if needed in the next decade, and 63% favor definitely building new nuclear power plants in the future. Finally, 68% of the general public favors "the use of nuclear energy as one of the ways to provide electricity in the United States." Those in favor outnumber those opposed by 2.5 to 1. In the same survey, Bisconti Research, Inc. found that "[n]early seven in 10 Americans would support building a new reactor at existing nuclear power plant sites." A similar survey conducted in July – August 2007 by Bisconti Research, Inc. found that 71% of the persons living within a 10 mile radius of a nuclear power plant site said that it would be acceptable to add a new reactor at the site of the nearest nuclear plant.

These survey results indicate very strong public support for new nuclear generation in this country.

Q. Please describe some of the challenges FPL faces in planning for and constructing new generation in the state of Florida.

A. Florida, one of the most populous states in the nation, also continues to be one of the fastest growing. Over the past decade, FPL added an average of about 86,000 new customers each year. FPL is projecting an annual average increase of approximately 85,000 new customers for the next fourteen years. In addition, electric usage per FPL customer has increased by approximately 30% over the past 20 years. As FPL witness Green explains in his testimony, FPL also projects continued significant growth in energy usage per customer over the next decade. Despite administering one of the most successful energy conservation programs in the country, and a focus on developing renewable energy, this growth in demand for electricity has necessitated and will continue to necessitate that, on average, FPL build one large (i.e., 650 MW) power plant, or purchase an equivalent amount of power every year, along with constructing the transmission and distribution infrastructure needed to deliver the power to customers. This effort requires a massive commitment of financial and other resources.

Additionally, siting electric infrastructure is a continuing challenge. Very early on in our planning and siting process FPL makes considerable effort to listen to the concerns of members of the community regarding the location of electric infrastructure and explore alternative locations. Siting new plants is a complex process involving the study of a significant amount of information and selecting the site that, all things considered, makes the most sense for FPL customers.

Working through this process is very difficult, especially in such a high growth environment as Florida, with development occurring throughout much of the state and with fewer and fewer sites and corridors from which to serve that growth.

Similarly, many people continue to have concerns about the impact of power plant emissions, despite the fact that FPL has invested billions of dollars in clean sources of energy such as natural gas and in power plant emissions control equipment, resulting in emissions rates of CO_2, NO_x and SO_2 that are among the lowest in the electric utility industry.

Florida, of course, has no available native fossil fuel resources for the production of electricity, which further exacerbates the challenges described above, because it necessitates the development or expansion of fuel delivery systems into the state.

I know of no utility in the country that must plan for the rate and scale of growth we have in Florida under such challenging circumstances.

Q. Have these factors affected FPL's fuel mix?

A. Yes. As indicated by FPL witness Silva, in 2006 FPL's fuel mix was as follows: natural gas (50%); nuclear (21%); coal (18%); fuel oil (9%); and other sources (2%). Proportionately, the two largest contributors in FPL's generating fleet are natural gas and nuclear generation. For several years, natural gas has been the fuel of choice for both peak and new base load power generation projects in the

U.S. The fuel itself is clean and has been readily available; the power generation technology is well understood, proven reliable and thermodynamically efficient; and the typical combined cycle plant has relatively short development and construction times, allowing for flexibility in planning and the ability to meet changing demand forecasts. Thus, for many years, highly efficient natural gas-fired combined cycle plants dominated all others in economic comparisons. Nuclear power, a safe, emission-free source of electric power with low operating costs, also has been an important part of FPL's fuel mix, today accounting for about one-fifth of the power FPL generates. But that percentage will continue to decline without the addition of new nuclear generation.

Q. Please describe the need for fuel diversity, particularly as it relates to FPL's fuel mix.

A. Until fairly recently, natural gas was a relatively inexpensive fuel. Unfortunately, the relative price of natural gas has increased significantly over the last several years, and, as FPL witness. Yupp indicates, the fundamentals of supply and demand suggest that it is likely to increase further and that price volatility will continue to be a strong characteristic of this market. More specifically, FPL witnesses Yupp and Silva will testify:

- In light of the Commission's decision regarding the FPL Glades Power Park project, by 2021, the proportion of natural gas-fired produced electricity could be as high as 75% of total electricity delivered to FPL's customers, while the contribution of nuclear could decrease to 16%. (Silva)

- Natural gas is currently delivered into Florida from the U.S. Gulf Coast on-shore and off-shore regions via the Florida Gas Transmission (FGT) and Gulfstream Natural Gas System (Gulfstream) pipelines and from the regasification of imported liquefied natural gas (LNG) at the Elba Island, Georgia terminal via the Cypress pipeline. While the FGT and Gulfstream infrastructure has provided a high level of reliability over the years, the demands on both pipelines have continued to grow. FGT is currently fully subscribed and by mid-2009 Gulfstream will be fully subscribed. Even with the planned expansions of the Cypress pipeline, the addition of incremental natural gas-fired generation will likely require an expansion of the gas transportation infrastructure in the state. (Yupp)
- Expansion of the existing pipelines to meet additional demand will not help reduce the vulnerability to production curtailments due to natural disasters such as hurricanes. (Yupp)
- As more natural gas-fueled generation is added, the need to consider alternatives to maintain reliability of the gas supply will become imperative. These alternatives could include the addition of a new interstate pipeline, additional underground natural gas storage, on-site LNG storage facilities, and identifying alternate supply sources, including access to new producing regions as well as the addition of LNG. LNG imports are projected to increase to meet U.S. natural gas demand growth from approximately 1.6 billion cubic feet (BCF) per day in 2006 to approximately 14.3 BCF per day by 2020. By 2020, as demand for natural gas grows, it is projected that LNG

will account for approximately 20% of the total U.S. natural gas supply. However, it is important to note that to the extent LNG supply imported from the oil producing regions of the middle east or other volatile regions becomes a greater percentage of total U.S. natural gas supply in the future, the risks associated with foreign supply fuel sources will become more prevalent in the overall U.S. natural gas picture. (Yupp)

- Although it is impossible to predict future fuel prices with certainty, based on current fuel price forecasts the exclusive addition of natural gas-fueled generation in the future would likely result in more volatile and higher fuel costs over time. (Yupp, Silva)

Q. How will Turkey Point 6 & 7 help with fuel diversity?

A. Nuclear power is an important part of a fuel-diverse resource mix. This is particularly evident if coal-fired generation is not viewed as an acceptable resource option at this time in the state of Florida, because nuclear power is the only potentially viable solid-fuel option to natural gas-fired units. As FPL witnesses Yupp and Silva testify, Turkey Point 6 & 7 can play an important role in reducing FPL's and its customers' exposure to natural gas price volatility and to potential interruptions in the availability of natural gas supply, which might otherwise lead to temporary power curtailments.

Q. FPL has indicated its public support for various efforts to address climate change and curb GHG emissions. Are these actions consistent with FPL's proposal to construct Turkey Point 6 & 7?

A. Yes. FPL's central view on this matter is that it is time for this nation to move forward with a mandatory, economy-wide, market-based GHG emission reduction program. At FPL, we have built a generation portfolio that includes substantial amounts of low and non-GHG emitting generation. In fact, FPL and its parent company, FPL Group, Inc., have been recognized as environmental leaders in the utility industry, with emissions rates for NO_x, SO_2 and CO_2 among the lowest of their peer companies nationwide. This places FPL in a better position to face stricter environmental requirements. New nuclear generation is simply an extension of this philosophy. As I noted above, nuclear power will be a necessary part of any plan that seeks to reduce GHG emissions.

Q. Please discuss the importance of nuclear generation to the objective of reducing GHG emissions in Florida.

A. Clean energy will be an important part of Florida's and FPL's energy future, particularly with the prospect of significant regulation of GHG emissions, including potential CO_2 reduction requirements. While some renewable generating sources have zero emissions, others do not. And, as noted by FPL witness Reed and others, none of the renewable resources available today or in the foreseeable future can be considered to provide baseload capacity on a sufficiently large scale to avoid the need that would be met by Turkey Point 6 & 7. Indeed, nuclear energy is the only baseload generation technology available in Florida with zero GHG emissions. As shown by FPL witnesses Kosky and Sim, the addition of Turkey Point 6 & 7 will reduce FPL's already low CO_2 emissions by about 7 million tons (10%) as compared to adding combined cycle units, and

by about 17.5 million tons (21%) as compared to adding integrated gasification combined cycle (IGCC) units. Therefore, as FPL and other utilities across this high growth state face the need to add baseload generating units to meet customers' needs, nuclear energy in general, and the addition of Turkey Point 6 & 7 in particular, will be essential if meaningful reductions in CO_2 or other GHG emissions are to be achieved.

Q. Please summarize FPL's position on renewable energy sources, its experience in serving customers with renewable energy and the Company's current efforts to procure and develop new renewable sources.

A. FPL supports serving customers with energy from renewable resources to the maximum extent feasible. FPL began serving customers with renewable energy in 1980. Today, FPL purchases more than 300 MW of power from renewable resources yearly and has asked for proposals to add more. In addition to serving customers with purchased renewable energy, FPL is actively working on developing wind, solar and other renewable energy sources in the state of Florida. FPL witness McBee discusses FPL's efforts in greater detail, including the Company's recent announcement of a major solar energy initiative in Florida which is expected to result in installation of up to 300 MW of solar thermal generation capacity at one of its existing power plant sites.

Also, as discussed in more detail by FPL witness Silva, during 2007, FPL conducted a renewable energy request for proposals that contained flexible terms and no restriction on price or quantity. The request attracted national interest

from potential bidders. As a result, FPL received proposals from five bidders totaling 144 MW of firm capacity, plus a proposal for supply of 100 MW of non-firm capacity from technology under development based on harnessing ocean current energy. FPL is working to add these newly proposed renewable resources to the portfolio serving FPL's customers.

Q. Does FPL's support for the expansion of its nuclear generating capacity displace its support for the development of new and improved sources of renewable generation?

A. No. As FPL witnesses Silva, Sim and Reed indicate, there is ample room within FPL's supply portfolio for all of the viable renewable energy ideas that can be brought forward to meet the growing needs of our customers. But these resources will not displace the need for a large addition of baseload capacity in the referenced time frame.

Q. Please briefly summarize FPL's record of nuclear operations in the state of Florida.

A. As FPL witness Stall discusses more extensively in his testimony, the performance of FPL's nuclear operations has been excellent, ranking among the best in the United States in both safety and reliability. All four of the Company's units have received license extensions from the NRC. In short, we have the capabilities and expertise to operate new nuclear units that will produce significant benefits for our customers.

Q. What are some of the benefits to FPL customers that have resulted from FPL's nuclear units?

A. FPL customers have derived significant benefits as a result of FPL's effective operations of its nuclear units. As FPL witness Silva indicates, power from the nuclear units have the lowest energy cost on FPL's system. This means that whenever nuclear energy is available to serve customers, it displaces more expensive fossil fuels energy costs and air emissions. The high availability rate of FPL's nuclear units means that they represent a substantial percentage of baseload capacity in FPL's system. In fact, as FPL witness Yupp testifies, over the period from January 2000 through July 2007, FPL's nuclear units have saved customers $8.7 billion in fuel costs compared to natural gas and oil. Additionally, FPL's total system fuel costs experienced less volatility as a result of a portion of these total system fuel costs coming from stable, low-cost nuclear generation.

Q. What tangible environmental benefits has FPL's use of nuclear generation produced?

A. As a "non-emitting" technology, nuclear generation on FPL's system has avoided large quantities of emissions over the years. In fact, as shown by FPL witness Kosky in his testimony, FPL's nuclear units in 2006 have avoided 20,400 tons of NO_x, 20,100 tons of SO_2 and 15,282,100 tons of CO_2 compared to what otherwise would have been emitted using fossil fuels, an overall air emissions reduction of about 30%.

Q. You referred earlier to significant challenges in constructing a nuclear power plant. Please elaborate on those challenges.

A. Although FPL strongly recommends moving forward with this Project to add nuclear generation in the 2018 – 2020 time frame, it is imperative that the Commission and all constituents in this process understand that this endeavor will be an enormous undertaking, with significant hurdles and challenges, some of which cannot even be anticipated at this time. Such risks will reside in almost every aspect of this Project, including licensing, contracting and procurement, labor, construction, financing, as well as in the economic factors that underlie the actual decision to proceed. Such economic factors, as described by FPL witnesses Silva, Sim, Yupp and Kosky, include fuel costs, the cost of alternative forms of generation, and GHG regulation.

In this regard, we, and certainly our investors, are mindful of the challenges and experiences of the last round of nuclear construction in this country, largely driven by the regulatory and industry response to Three Mile Island, the legacy of which is monumental. It is noteworthy that at the time of Three Mile Island, 116 units were under construction. Sixty-six of those units were subsequently cancelled. The other 50 were completed but with an average delay of 6.3 years. Most significantly, no new plants have been ordered since 1978.

FPL witness Reed discusses the electric utility industry and, in particular, the regulatory experience at some length in his testimony. In addition to what Mr.

Reed describes, I will note two specific aspects of that experience as it relates to the cost increases that were experienced almost universally across the industry as utilities completed the construction of nuclear units. First, in the post-Three Mile Island world, companies were required to make significant design changes deemed necessary by the NRC and other regulatory bodies. These imposed significant incremental costs and delays on projects. Further, utilities faced much higher than anticipated escalation charges due to unexpectedly higher rates of inflation and cost of capital as well as to the extended construction schedules.

Also, while there is strong public and governmental support for moving forward with developing a new generation of nuclear units, at the same time, developing a new generation of nuclear units will almost certainly engender substantial, intense opposition from various quarters that remain resolutely opposed to nuclear power, regardless of the significant GHG-reducing and fuel diversity benefits it offers. It is no secret that as a tactical matter opponents of nuclear generation are likely to seek to cause as many delays as possible in all aspects of the process, with the eventual goal that projects will be dropped, due to a loss of governmental, company and/or investor support. Such delays will result in uncertainty as to schedule, cost and other dimensions of developing new nuclear units. Unfortunately, litigation and litigation costs will be a part of the process and cost of constructing new nuclear generation.

In summary, the combination of significant Project risks, the industry and regulatory experiences during the last round of nuclear construction, and the almost certain and intense opposition to nuclear-powered generation that will be presented by certain groups in this country certainly are significant challenges for any utility considering whether to pursue the addition of new nuclear generation.

Q. Given all of the challenges, why does FPL recommend moving forward with the Project?

A. While it is important to recognize the challenges that the Project will face, I also want to underscore FPL's support for moving forward as a means to preserve the option to add nuclear generation in the 2018 – 2020 time frame, and to realize all of the associated benefits for customers. Based on everything that we know today, it is the best resource option to provide needed baseload generating capacity, improve fuel diversity, reduce Florida's dependence on fuel oil and natural gas, and contribute toward meaningful reductions in GHG emissions. Other FPL witnesses in this case, including Messrs. Scroggs, Diaz, Silva and Reed, address these issues in detail, but I have listed below a few key factors that allow FPL to recommend proceeding with the development of this Project at this time:

- Non emitting characteristic of nuclear generation as a baseload resource addition in a CO_2-constrained environment;
- FPL's economic evaluation of the cost-effectiveness of nuclear as a resource option;
- Improved NRC approval processes;

- General expectation that we will not see a confluence of the same kinds of factors that led to the extreme cost increases in during the last round of nuclear construction;
- Step-wise approach that will permit annual reviews of the projected costs and system economics for such a plant pursuant to the Nuclear Power Plant Cost Recovery Rule;
- General support of political leadership;
- Initial indications through legislation and administrative rulemaking of governmental and regulatory support for the expansion of nuclear generating capacity; and
- Expectations that the Nuclear Power Plant Cost Recovery Rule will be applied appropriately.

The failure of any one of these factors at any time during the process could significantly shift the perspective of FPL and its investors regarding the merits of proceeding with the Project. Frankly, active and consistent governmental and regulatory support will be imperative to maintain the course of the Project and to help bridge any challenges that undoubtedly will arise along the way. Of course, the Commission itself also will have the right to review and revisit the viability of the Project on an annual basis through the annual review process instituted under the Nuclear Power Plant Cost Recovery Rule.

Q. What governmental and regulatory support will be required for this project to be completed?

A. Any utility that undertakes to construct new nuclear generating facilities will require active and ongoing regulatory and other governmental support for such a project. FPL witness Reed addresses this is some detail in his testimony.

A fundamental consideration underlying this and many other regulatory matters that will be heard by the Commission over the next few years is that the cost to provide electric service is increasing. We are living in a world with (i) increasing energy demands compared to relatively static pools of fossil fuel resources -- resources that are not natively available in the state of Florida; (ii) increased competition for labor, major equipment, and all of the other parts and raw materials that are needed to construct generating units; and (iii) a heightened concern and focus regarding the prospect of global warming and the need for reductions in CO_2 and other GHG emissions leading to, among other things, the introduction of more high cost renewable resources into the energy production mix. Of course, any one of these factors alone puts upward pressure on the cost of electric service. But these are the realities we face at the same time we at FPL must continue to build the necessary infrastructure to meet the growing demands for electricity in the state of Florida, whose population and economy are expanding at levels well above the national average.

Taking steps now to preserve the option of nuclear generation as a potentially important resource addition for FPL's customers and Florida's energy future will entail significant risks and will involve substantial costs. Therefore, to the extent that utilities and their investors are willing to make such large investments in these resource options, it is predicated only upon the expectation that government in general, and regulators in particular, recognize current market imperatives, and the reality of price increases for utilities to continue to provide adequate electric power to meet the needs of a growing economy while also achieving significant reductions in GHG emissions. It will be very important during this process that government and regulators begin to educate customers regarding the price increases that will be required to support important resource options, including both nuclear and renewables, necessary to secure Florida's energy future. It will be equally important that we are able to work collaboratively with the Commission and other stakeholders to realize the benefits available through the addition of new nuclear generation.

As a general proposition, if utilities and investors perceive any abnormal or unexpected regulatory risk associated with these significant, long-lived investments, such as a regulator failing to apply or otherwise misapplying the concept of prudence, including the use of hindsight in assessing decisions, misinterpreting cost recovery rules, or if the process becomes overly adversarial in nature, few if any nuclear projects will be completed. This would result in a loss of the associated benefits of fuel diversity, lower system reliability, and

higher CO_2 and other GHG emissions. The investment and the associated risk simply will be perceived by utilities and their investors as too great to warrant moving forward. If the Commission has any reasonable doubts about the wisdom of proceeding with the Project as proposed, taking into account the risks and costs involved, it would be far preferable to have that communicated now and for the Commission to deny the request for a determination of need. While such a result is contrary to FPL's recommendation, I feel obliged to make this point in order to clearly underscore the importance of governmental and regulatory support on a project of this size and complexity.

Q. Should the Commission grant FPL's request for a determination of need for Turkey Point 6 & 7?

A. Yes. Granting the determination of need under the provisions of Section 403.519, F.S., and Rule 25-22.081, F.A.C., applicable to new nuclear plants will represent the first, crucial step in a process that will maintain the possibility of new nuclear capacity being added to the FPL generating fleet starting in 2018. FPL will retain substantial flexibility to adjust the actual development and construction path in light of additional information likely to be learned in future years; further, the Commission will retain the ability to review and evaluate future decisions contemporaneously, thus ensuring that the final result is prudent and in customers' long-term best interests.

While it is impossible for any single technological solution to be economically preferred in all situations, FPL's economic analysis shows a wide range of

scenarios in which the addition of new nuclear capacity will provide large direct economic benefits to customers, as well as maintaining fuel diversity and system reliability for our customers for the period beginning 2018, and achieving meaningful reductions in GHG emissions. The Commission should approve FPL's request for a determination of need and, in so doing, indicate its strong support for this Project.

Q. Are you asking for the Commission to do more than simply grant a determination of need in this case?

A. Yes. If the Commission decides to grant a determination of need in this case, FPL is requesting that the order reflect strong support for the Project, affirming the importance of taking steps now to preserve nuclear as a resource option to meet needs as early as 2018, acknowledging the risks and costs associated with a project of such magnitude, and clearly indicating the importance of, and Commission's intent to provide, continued regulatory support throughout the process. In this regard, FPL also has explicitly requested that the Commission confirm the appropriateness of FPL incurring obligations and making advance payments for long-lead procurement items that are reasonably necessary to preserve the earliest practical deployment schedule for the Project. Further, we are asking that the Commission confirm that such payments are properly characterized as "pre-construction costs," to be recovered pursuant to the Nuclear Power Plant Cost Recovery Rule.

Q. Does this conclude your direct testimony?

A. Yes.

Florida Power & Light Company

Biographical
Information

Armando J. Olivera
President

Armando Olivera is president of Florida Power & Light Company (FPL), the principal subsidiary of FPL Group, Inc., and one of the largest investor-owned electric utilities in the nation. He was appointed president in June 2003.

Under Mr. Olivera's leadership, FPL has invested heavily in ensuring reliable service and meeting strong current and projected growth in demand for electric power in its vast service territory. FPL has one of the most efficient fossil power plant fleets in the nation and has taken a number of additional actions to mitigate high fuel costs. The company has implemented an industry-leading program to harden its electric system against hurricanes as well as ensure everyday reliability.

Mr. Olivera joined FPL in 1972 and has served in a variety of management positions in the areas of transmission and distribution operations, fuels management, and strategic planning and resource allocation. His prior position before becoming president was as senior vice president of Power Systems.

Mr. Olivera holds a Bachelor of Science degree in electrical engineering from Cornell University and a master of business administration degree from the University of Miami. He also is a graduate of the professional management development program of the Harvard Business School.

In 2007, Mr. Olivera was appointed by Florida Governor Charlie Crist to serve on the Florida Governor's Action Team on Energy and Climate Change, which is tasked with developing a comprehensive strategy that achieves targets for statewide greenhouse gas reductions.

He is the current president of the Southeastern Electric Exchange, immediate past Chairman of the Florida Reliability Coordinating Council (FRCC), and a member of the board of Enterprise Florida, as well as a member of Cornell University Engineering Council and Cornell University Council.