



MEMORANDUM

AGENDA ITEM #15b

DATE: JANUARY 3, 2011

TO: COUNCIL MEETING

FROM: STAFF

SUBJECT: DRAFT AGENCY REPORT FOR THE TURKEY POINT POWER PLANT EXPANSION -
TRANSMISSION LINES COMPONENT OF THE PROJECT SITE CERTIFICATION
APPLICATION

Attached is a draft version of the final agency report on the transmission line portion of the Turkey Point Site Certification Application.

Background

Florida Power and Light (FPL) submitted a Site Certification Application to the Florida Department of Environmental Protection (FDEP) on June 30, 2009. If approved, the application would allow FPL to expand nuclear energy production at its Turkey Point facility in Miami-Dade County. The proposed project consists of the construction of two new 1,100 megawatts (mW) nuclear units, 6 and 7, and supporting facilities, as well as the placement of new transmission lines. The State of Florida would license both the transmission lines and new electrical power plants in one proceeding pursuant to the State Power Plant Siting Act (PPSA), Chapter 403, Part II, Florida Statutes (Fla Stat.).

The South Florida Regional Planning Council is one of 17 affected agencies actively involved in the review of the application, as identified in §403.507(2)(a), Fla. Stat. The site certification process provides the Council the opportunity to assess the project's consistency with the *Strategic Regional Policy Plan for South Florida* (SRPP). Each affected agency will issue a Final Report summarizing impacts of the transmission line corridors and related activities on the public, based on the degree to which the proposed transmission lines are consistent with each agency's jurisdiction and may recommend approval or denial of the application. The Council's report analyses the major regional issues and proposed conditions of certification on matters within the Council's jurisdiction, pursuant to §403.507(3)(c) and §403.526(2)(b)3., Fla. Stat.

The final agency reports are due February 16, 2011. The reports will be reviewed and considered by the FDEP, who has authority to grant project approval.

Recommendation

While the attached report does not require formal action at this time, the report is provided to elicit input, comments, and recommendations for the final report.



January 3, 2011

Mr. Michael P. Halpin
Program Administrator
Office of Siting Coordination
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Draft Agency Report for the Turkey Point Nuclear Power Plant Expansion - Transmission Lines
Component of the Project Site Certification Application

Dear Mr. Halpin:

Pursuant to Florida Statute 403.526, the South Florida Regional Planning Council (SFRPC) staff has written a final agency report pertaining to the Turkey Point Transmission Lines.

INTRODUCTION

Florida Power and Light (FPL) submitted a Site Certification Application to the Florida Department of Environmental Protection (DEP) on June 30, 2009. If approved, the application would allow FPL to expand nuclear energy production at its Turkey Point facility in Miami-Dade County. The proposed project consists of the construction of two new 1,100 megawatt (mW) nuclear units, 6 and 7, and supporting facilities, as well as the placement of new transmission lines. The State of Florida would license both the transmission lines and new electrical power plants in one proceeding pursuant to the State Power Plant Siting Act (PPSA), Chapter 403, Part II, Florida Statutes (F.S.).

The South Florida Regional Planning Council is one of several affected agencies actively involved in the review and comment of the application, as identified in §403.507(2)(a) and 403.526 F.S. This process provides the Council the opportunity to ensure the project's consistency with the *Strategic Regional Policy Plan for South Florida (SRPP)*. The Council's report contains recommendations to address impacts of the proposed project.

PROJECT DESCRIPTION

The two nuclear generating units with supporting buildings, facilities and equipment are proposed to be located due south of the existing Turkey Point units, on a parcel currently within the industrial wastewater / cooling canal system. Associated facilities proposed in or around the new or existing plant units include parking areas; a nuclear administration and training building; a reclaimed water treatment facility and treated reclaimed water delivery pipelines; radial collector wells and delivery pipelines for cooling water backup; and an equipment barge unloading area. A new electrical substation (Clear Sky) will be constructed on the Turkey Point site. A 230-kV transmission line also will be needed to connect the new substation to the existing substation on the plant property.

The application requests transmission corridors within the following communities: unincorporated Miami-Dade County, Miami, Coral Gables, Doral, Homestead, Medley, Palmetto Bay, Pinecrest, and South Miami. A transmission corridor may be up to a 6.5 miles in width to accommodate reclaimed

water pipeline. Within a corridor, transmission lines and other system improvements may be placed. The application also requests the creation or expansion of access roads and bridges (between SW 328 Street and SW 359 Street and east of SW 137 Avenue). The Miami-Dade County Comprehensive Development Master Plan Amendments for these proposed access roadway activities were adopted by the County on April 28, 2010.

FPL has indicated that the existing transmission line infrastructure is insufficient to carry the load that will be generated by the new reactors. New 500 and 230 kilovolt (kV) electric transmission lines are needed to connect the proposed Clear Sky and existing Turkey Point substations to other existing FPL substations in Miami-Dade County. Because of the load requirements, two separate transmission line corridors have been proposed, totaling approximately 88.7 miles. The East Preferred Corridor is a 36.7 mile area proposed by FPL to connect the existing Turkey Point substation to the new Clear Sky and existing Davis and Miami substations. The Davis to Miami portion will run through more urbanized sections of U.S. 1 from Palmetto Bay through Downtown Miami; one 230-kV line will be constructed along this 17.7 mile section of the corridor. The West Preferred Corridor will connect the new Clear Sky substation to the existing Levee substation, with two 500-kV lines; the West Preferred Corridor will also connect the new Clear Sky substation to the existing Pennsuco substation, with one 230-kV line. The Levee to Pennsuco portion will run through Doral and Medley. The full West Preferred Corridor is 52 miles in length; it is 43.6 miles from Clear Sky to Levee and 8.4 miles from Levee to Pennsuco. Three transmission lines are proposed to be constructed within a single right-of-way up to the existing Levee substation.

SFRPC REVIEW AND EVALUATION

Council staff requested additional information regarding proposed transmission line siting in terms of alternate routes, rights-of-way, cost, construction and quality of life issues during the completeness review. Florida Power and Light (FPL) representatives met with Council staff to address initial agency questions. More specific concerns related to Council staff's original issue areas were raised during the September 2, 2009 Informational Public Meeting, hosted by the SFRPC and Miami-Dade County, at which the applicant was present. Additional public comments were given at the June 7, 2010 SFRPC Council meeting.

In accordance with Sections 403.5252 and 403.526, F.S., and public comments, Council staff has identified issues that merit additional attention because of their potential impacts to the Region, after a careful review of the transmission line portion of the site certification application and FPL responses within the scope of completeness requests for additional information. Council staff reviewed how the proposed project would affect the 22 priority issues of the Region that form the *Strategic Regional Policy Plan for South Florida*. The relevant priority areas that may be affected by the proposed project are: Natural Resources; Public Health, Safety, and Quality of Life; Redevelopment and Transportation; and Infrastructure.

ISSUE ANALYSIS

Natural Resources, Public Health, Safety, and Quality of Life

Many of the existing transmission lines were sited in less developed areas or outside of developed areas. This application seeks to place transmission lines and associated access roads in some areas that have greater residential and commercial densities and intensities. There is concern about the effects of the transmission lines, access roads, and related expansion activity on salinity, vegetation, wildlife, wetlands, and Environmentally Endangered Lands.

A portion of the West Preferred Corridor traverses the Everglades National Park. Construction of transmission lines in this location would negatively impact park lands, native plants and species.

The municipalities along the urbanized portions of the proposed transmission corridors are concerned about the impacts of electromagnetic field (EMF) and radiofrequency exposure; noise levels; transmission line signal interference with emergency communication systems and radio and television communications; and health, safety and overall quality of life.

The following Goals and Policies of the SRPP should be addressed as part of the application approval process.

Goal 3 Promote the health, safety, and welfare of South Florida's residents.

Policy 3.7 Reduce exposure to environmental contaminants and hazards in the Region's ground, air, and water.

Goal 14 Preserve, protect, and restore Natural Resources of Regional Significance.

Policy 14.1 Address environmental issues, including the health of our air, water, habitats, and other natural resources, that affect quality of life and sustainability of our Region.

Policy 14.3 Protect native habitat by first avoiding impacts to wetlands before minimizing or mitigating those impacts. Development proposals should demonstrate how wetland impacts are being avoided and what alternative plans have been considered to achieve that objective.

Goal 15 Restore and protect the ecological values and functions of the Everglades Ecosystem by increasing habitat area, increasing regional water storage, and restoring water quality.

Policy 15.1 Encourage land uses and development patterns that are consistent with Everglades Ecosystem restoration and with the protection of Natural Resources of Regional Significance.

Goal 19 Direct future development away from areas most vulnerable to storm surges.

Policy 19.7 Require any development or redevelopment that occurs in a Coastal High Hazard Area to include features that mitigate hazard impacts and promote public safety and welfare.

Redevelopment and Transportation

The placement of transmission lines along the more urbanized areas of the two proposed corridors will affect future opportunities to provide new transit features, the South Miami-Dade Busway or Metrorail expansion, greenways and pedestrian features, redevelopment projects, and scheduled roadway improvements. Related construction activities and traffic will also negatively impact the surrounding communities.

The associated risks of overhead transmission lines, whether real or perceived, are expected to alter real estate and economic development decisions. The affected municipalities believe businesses and their employees will be less likely to locate near overhead transmission lines. South Florida municipalities will be conducting the Evaluation and Appraisal Report process between 2010 and 2013. Future opportunities for redevelopment and growth will be identified as they review and analyze their respective Comprehensive Plans. Transmission lines and access road rights-of-way will affect options for future development activities. The transmission lines as proposed will also impede pedestrian access, alter bus stop locations, and limit development.

The following Goals and Polices of the SRPP should be addressed as part of the application approval process.

Goal 8 Enhance the Region's mobility, efficiency, safety, quality of life, and economic health through improvements to road, port and public transportation infrastructure.

Policy 8.1 Maintain the Florida Intrastate Highway System, other stat roads, local roadways, and public transportation systems to preserve the Region's investment in infrastructure; support daily use and needs; enhance the Region's global competitiveness and economic health; increase safety; ensure emergency access and response; and provide for evacuation purposes.

Goal 11 Encourage and support the implementation of development proposals that conserve the Region's natural resources, rural and agricultural lands, green infrastructure and:

- Utilize existing and planned infrastructure where most appropriate in urban areas;
- Enhance the utilization of regional transportation systems;
- Incorporate mixed-land-use developments;
- Recycle existing developed sites, and
- Provide for the preservation of historic sites.

Goals 20 Achieve long-term efficient and sustainable development patterns that protect natural resources and connect diverse housing, transportation, education, and employment opportunities.

Policy 20.1 Provide for the compatibility of adjacent land uses and assess the impacts of land uses on the surrounding environment in comprehensive plans and development regulations.

Infrastructure

Proposed transmission lines should be compatible with existing and future uses in terms of mass, scale and height. The applicant should consider both monetary and societal costs when making decisions about infrastructure location and technology. Special attention should be given to limiting environmental, health, economic and social impacts to the surrounding communities. The placement of transmission poles will result in the removal of trees and vegetation.

Although the application proposes the siting of overhead transmission lines, the alternatives of undergrounding and co-locating transmission lines with Metrorail should be further explored. Public investment costs should be equitably shared by all FPL rate holders, no matter what delivery system is ultimately constructed.

The following Goals and Polices of the SRPP should be addressed as part of the application approval process.

Goal 4 Enhance the economic and environmental sustainability of the Region by ensuring the adequacy of its public facilities and services.

Policy 4.1 Public facility and service providers should give priority to the construction, maintenance, or reconstruction of public facilities need to so serve existing development most effectively and to the elimination of any infrastructure deficiencies which would impeded redevelopment.

Policy 4.2 Optimize the service area and facility size of public facilities in the Region and direct future development and redevelopment first to areas served by existing infrastructure.

- Policy 4.3 Utilize the existing infrastructure capacity of regional facilities to the maximum extent consistent with applicable level of service standards before encouraging the expansion of facilities or the development of new capacity.
- Policy 4.9 Ensure that local governments establish as wide a range of financing methods for the provision of public facilities as possible. Where impact fees are assessed, procedures, schedules, and programs for the expenditure of these fees in a timely and equitable manner shall be developed.
- Policy 4.10 Encourage the application of resource recovery, recycling, cogeneration, district cooling, water re-use systems, and other appropriate mechanisms where they are cost-effective and environmentally sound as a means of reducing the impacts of new development on existing public facilities and services and decreasing the costs of providing new public facilities and services.
- Goal 9 Develop clean, sustainable, and energy-efficient power generation and transportation systems.
- Policy 9.2 Encourage the development of renewable, clean fuels and energy-efficient enterprises to serve our communities and national markets.
- Policy 9.7 Assess the impacts of global climate change and sea-level rise on South Florida's resources and land uses.
- Goal 21 Assume a leadership role to enhance regional cooperation, multi-jurisdictional coordination, and multi-issue regional planning to ensure the balancing of competing needs and long-term sustainability of our natural, developed and human resources.
- Policy 21.1 Implement better coordination of land use, natural resource, and infrastructure planning, with special attention to regional ecosystem management approaches.

CONDITIONS

Approval of the transmission lines is contingent on the approval of the Turkey Point Plant expansion component. If the construction of new units 6 and 7 and associated facilities is approved, the following conditions must also be satisfied:

- The construction of the West Preferred Transmission Line Corridor from the new Clear Sky substation to the existing Levee Substation is contingent on the Everglades Land Swap to the West Secondary Corridor or other mutually agreed upon alternate corridor east of L-31N and west of Krome Avenue.
- Coordination with affected municipalities to ensure the establishment of rights-of-way and the actual placement of transmission lines does not constrain, impede or otherwise limit future development or expansion.
- Coordination of construction, improvement and maintenance activities amongst the applicable agencies and municipalities to lessen related impacts.
- Conduct agreed upon environmental monitoring
- Ensure appropriate mitigation is conducted

FINAL RECOMMENDATION

Staff has identified the priority issue areas and analyzed the impacts of the proposed project. Staff is also aware of that several affected parties are engaged in alternative route alignment studies and have sought legal challenges to the proposed U.S. Nuclear Regulatory Commission application. Council staff recognizes that the transmission line facilities are contingent on approval of the proposed power plant in

Mr. Michael P. Halpin
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order to be constructed. Staff recommends that, if the application is approved, the applicant: 1) consider the full the impacts of transmission lines and access roads as it relates to rights-of way issues, relocation of facilities and infrastructure, and noise and light pollution concerns, and provide the appropriate mitigation; 2) work closely with affected municipalities and their residents to address impacts and mitigation strategies; 3) minimize the impacts to the natural systems to the greatest extent feasible; and 4) determine the extent of sensitive wildlife and vegetative communities in the vicinity of the project and protect and/or mitigate for disturbed habitat. This will assist in reducing the cumulative impacts to people, animals, native plants and wetlands that the Goals and Policies of the *Strategic Regional Policy Plan for South Florida (SRPP)* seek to protect.

If you require further information, please contact me or Karen Hamilton at 954-985-4416.

Sincerely,

B. Jack Osterholt
Interim Executive Director

BJO/im

cc: Sam Goren, Goren, Cherof, Doody & Ezrol, P.A
Michael Cirullo, Goren, Cherof, Doody & Ezrol, P.A
Distribution List (attached)