UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before the Licensing Board:

E. Roy Hawkens, Chair
Dr. Michael F. Kennedy
Dr. William C. Burnett

In the Matter of	)	
	)	Docket Nos. 52-040 and 52-041
Florida Power & Light Company	)	
	)	ASLBP No. 10-903-02-COL-BD01
Turkey Point, Units 6 and 7	)	October 1, 2010

JOINT PETITIONERS' REPLY TO FPL ANSWER OPPOSING PETITION TO INTERVENE AND NRC STAFF ANSWER TO PETITION FOR INTERVENTION

Pursuant to 10 C.F.R. § 2.309(h), petitioners, Mark Oncavage, Dan Kipnis, Southern Alliance for Clean Energy ("SACE"), and National Parks Conservation Association ("NPCA") (collectively, "Joint Petitioners"), hereby submit this Reply in response to Florida Power & Light Company's ("FPL") Answer Opposing Petition to Intervene (the "FPL Answer") and the Nuclear Regulatory Commission ("NRC" or the "Commission") Staff Answer to Petition for Intervention (the "Staff Answer"), each dated September 13, 2010. As asserted below, Joint Petitioners provided sufficient basis and specificity in their Petition for Intervention, dated August 17, 2010 (the "Petition"),

in accordance with 10 C.F.R. § 2.309. Accordingly, the Petition should be accepted in its entirety, and the following contentions should be admitted:

1. NEPA 1: The Environmental Report (the "ER") fails to adequately address direct, indirect, and cumulative impacts of the radial collector wells on the Biscayne Aquifer and the Biscayne Bay ecosystem.

    a. NEPA 1.1: The ER provides insufficient data to aid the Commission in assessing the impacts of the radial collector well system to the Biscayne Bay ecosystem due to the ER's failure to specify the frequency and amount of water the radial collector wells will withdraw from the Biscayne Aquifer.

    b. NEPA 1.2: The ER provides insufficient data to aid the Commission in assessing the impacts of the radial collector well system on the Biscayne Bay ecosystem due to the ER's failure to provide sufficient aquifer testing and groundwater modeling to support the ER's conclusions.

    c. NEPA 1.3: The ER provides insufficient data on the current species diversity, abundance, and habitat utilization in Biscayne Bay, and particularly in the vicinity of the radial wells, to aid the Commission in assessing the impacts of the radial collector well system to the Biscayne Bay ecosystem.

    d. NEPA 1.4: The ER provides insufficient data on the habitat conditions and habitat requirements in the Biscayne Bay, and particularly in the vicinity of the radial wells, to aid the Commission in assessing the impacts of the radial collector well system to the Biscayne Bay ecosystem.

    e. NEPA 1.5: The ER provides insufficient data on the direct, indirect, and cumulative impacts of the radial collector wells.

2. NEPA 2: The ER fails to adequately address the direct, indirect, and cumulative impacts of the reclaimed wastewater system on groundwater, air, surface water, wetlands, and CERP.

    a. NEPA 2.1: The ER fails to adequately identify, analyze, and discuss the potential impacts on groundwater quality of injecting polluted wastewater into the Floridan Aquifer via underground injection wells.

    b. NEPA 2.2: The ER fails to discuss the impacts associated with the construction of pipelines to convey the reclaimed wastewater to the plant's wastewater treatment facility.

    c. NEPA 2.3: The ER fails to discuss the impacts to the Comprehensive Everglades Restoration Plan ("CERP") associated with the use of reclaimed wastewater to cool Units 6 & 7.

3. NEPA 3: The ER fails to adequately address the direct, indirect, and cumulative impacts of constructing and operating the transmission lines associated with Units

6 & 7 on wetlands (including the Everglades), wildlife (including wading birds, migratory birds, and federally endangered and threatened species), and CERP.

4. NEPA 4: The ER fails to adequately address the direct, indirect, and cumulative impacts of constructing and operating the access roads associated with Units 6 & 7 on wetlands and wildlife.

5. NEPA 5: The ER fails to adequately address (1) all reasonable alternatives to the proposed transmission line corridors and associated access roads, and (2) how the applicant will avoid and/or minimize impacts to wetlands caused by construction and operation of these transmission line corridors and associated access roads.

6. NEPA 6: The ER fails to adequately address the cumulative impacts of constructing and operating Units 6 & 7 on salinity levels in groundwater, surface water, Biscayne Aquifer, and Biscayne Bay; wetlands; and wildlife.

7. NEPA 7: The ER fails to address the direct, indirect, and cumulative impacts of sea level rise on the construction and operation of Units 6 & 7 and the ancillary facilities.

8. NEPA 8: FPL fails to adequately address the need for power in its ER. In particular, the ER fails to consider the drop in electricity demand in FPL's service area since 2008, and it relies on erroneous claims that state and regional evaluations satisfy NUREG-1555.

    a. NEPA 8.1: The ER provides insufficient data and an outdated energy demand forecast that do not aid the Commission in determining the need for power in FPL's service area.

    b. NEPA 8.2: The state and regional evaluations of the need for power fail to satisfy the requirements for NUREG-1555's exclusion of NRC independent review because they are not: (1) systematic, (2) comprehensive, (3) subject to confirmation, or (4) responsive to forecasting uncertainty.

9. NEPA 9: FPL failed to adequately address in its ER all reasonable demand side management ("DSM") and renewable energy alternatives to the construction and operation of Units 6 & 7.

DISCUSSION

Contention NEPA 1: The ER fails to adequately address direct, indirect, and cumulative impacts of the radial well collectors on the Biscayne Aquifer and the Biscayne Bay Ecosystem.

Contention NEPA 1.1: The ER provides insufficient data to aid the Commission in assessing the impacts of the radial collector well system to the Biscayne Bay ecosystem due to the ER's failure to specify the frequency and

amount of water the radial collector wells will withdraw from the Biscayne Aquifer.

REPLY TO FPL AND NRC STAFF ANSWERS

As discussed below, Contention NEPA 1.1 demonstrates why the impacts of the radial collector well system is material to NRC findings, provides sufficient facts that support this position, and offers sufficient information to establish that the ER does not comply with NEPA requirements. 10 C.F.R. § 2.309 (f)(1)(iv)-(vi). Furthermore, FPL's challenges to the merits of Contention NEPA 1.1 should be left to litigation, and – in any event – attempts to argue the merits further demonstrate that a genuine dispute exists. 10 C.F.R. § 2.309 (f)(1)(vi). Thus, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309, and Contention NEPA 1.1 is admissible.

FPL's response to Contention NEPA 1.1, as with so many of its responses, is long on talk and short on substance. While FPL does a fine job of obscuring the issue, a bona fide dispute exists as to whether the ER provides sufficient data and analysis to assist the Commission in preparing an EIS that will adequately assess the impacts of the radial collector well system to the Biscayne Bay ecosystem. Joint Petitioners contend that such a dispute exists due to FPL's failure to specify the frequency and amount of water the radial collector wells will withdraw from the Biscayne Aquifer. Joint Petitioners argue that without this information, FPL cannot adequately assess the impacts.

FPL concedes that the information Joint Petitioners assert is missing – namely, the exact ratio of the water supplied by either the radial collector well system or the Miami-Dade Water and Sewer Department ("MDWASD") at any given time, and the exact amount of water that will be withdrawn from each of the two sources at any given time – is indeed unknown. FPL Answer at 27 and 29. FPL, however, argues that these

uncertainties do not matter. Instead, it contends, "while the ratio of water supplied by the two makeup water sources would vary…the total need for makeup water from the radial collector wells would be within the flow rates." Id. at 29. FPL further argues, "while FPL cannot predict how much water it would need to withdraw from the radial collector wells at any one time, the ER provides a conservative, bounding value for the maximum expected flow rates from the radial collector wells of 43,200 gpm per unit." Id. FPL's very arguments reflect a clear disagreement with Joint Petitioners as to the sufficiency of information provided, and in turn, demonstrate that a genuine dispute exists as to whether the lack of detailed information renders the ER deficient in informing the Commission of the potential impacts of the radial collector wells on the Biscayne Bay ecosystem.

In making the argument that the information provided in the ER is adequate, FPL fails to recognize that "[w]hether or not the contention is true is left to litigation on the merits in the licensing proceeding." *Washington Public Power Supply System* (WPPSS Nuclear Project No. 2), ALAB-722, 17 N.R.C. 546, 551 n.5 (1983) (citing *Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542 (1980)). If an applicant believes that it can readily disprove a contention admissible on its face, the proper course is to move for summary disposition following its admission, not to assert a lack of specific basis at the pleading stage. *Carolina Power & Light Co. and North Carolina Eastern Municipal Power Agency* (Shearon Harris Nuclear Power Plant, Units 1 and 2), LBP-82-119A, 16 N.R.C. 2069, 2071 (1982). *See also Gulf States Utilities Co.* (River Bend Stations, Unit 1), CLI-94-10, 40 N.R.C. 43, 51 (1994).

NRC rules for pleading contentions are "strict by design" and require more than notice pleading. *Dominion Nuclear Connecticut* (Millstone Nuclear Power Station, Units

1 and 3), CLI-01-24, 54 N.R.C. 349, 358 (2001). At the same time, "the 'raised threshold' for contentions must be reasonably applied and is not to be mechanically construed." *Sacramento Municipal Utility District* (Ranch Seco Nuclear Generating Station), 38 N.R.C. 200, 206 (1993) (quoting *Consumers Power Co.* (Midland Plant, Units 1 and 2), CLI-74-3, 7 AEC 7, 12 (1974)). An Atomic Safety and Licensing Board Panel recently summarized the standards for admission of contentions:

> **A petitioner is not, however, required . . . to prove its case at the contention stage, and need not proffer facts in formal affidavit or evidentiary form sufficient to withstand a summary disposition motion.** But a protestant does not become entitled to an evidentiary hearing merely on request, or on a bald or conclusory allegation that . . . a dispute exists. The protestant must make a minimal showing that material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate. In other words, a petitioner must present sufficient information to show a genuine dispute and reasonably indicating that a further inquiry is appropriate. Some sort of minimal basis indicating the potential validity of the contention is required.

Crow Butte Resources (License Amendment for the North Trend Expansion Project), 67 N.R.C. 241, 292 (2008) (internal quotations and citations omitted) (emphasis added). By ignoring the technical requirements for pleading contentions and instead contesting the merits of Contention NEPA 1.1, the FPL Answer actually demonstrates "that a genuine dispute exists in regard to a material issue of law or fact." *See* 10 C.F.R. § 2.309 (f)(1)(iv).[1]

The NRC Staff Answer suffers from the same fatal flaw. *See e.g.* Staff Answer at 13. It inappropriately relies on the ER's conclusions (e.g. the "amount of saltwater used (up to approximately 124 mgd if 100 percent saltwater) compared to the size of the

[1] To the extent FPL argues that Petitioners are off base with their assertion that up to 90 mgd of reclaimed water will be reserved, this figure comes directly from FPL's own analysis of this project. *See Ten Year Power Plant Site Plan 2009-2018*, Submitted To: Florida Public Service Commission, April 2009 pg. 166. While the ER may contain a different number, this discrepancy supports Petitioners' claims that there are uncertainties surrounding just how much water is in fact available to FPL to implement its project.

saltwater resource available would be insignificant"; "thus the ER concludes the effects of radial well operations on the salinity of Biscayne Bay would be minimal…") as the basis for asserting that no dispute exists. Id. In making these assertions, the Staff Answer, like the FPL Answer, actually demonstrates "that a genuine dispute exists in regard to a material issue of law or fact." *See* 10 C.F.R. § 2.309 (f)(1)(iv).

In addition to disputing the merits, FPL argues in its Answer that Joint Petitioners unfairly characterize the ER's treatment of the radial wells' impacts because these impacts were "discussed." FPL Answer at 32. FPL's argument that it has indeed "discussed" the impacts is disingenuous. The conclusory statements provided in the ER, such as "effects on salinity of the bay, based on the predicted amount of withdrawal versus the natural recharge, would be minimal," FPL Answer at 32, without any accompanying analysis as to what these minimal impacts would be and why they are "minimal," does not constitute an adequate discussion of environmental impacts and does a disservice to the entire NEPA process. As the court in *Foundation of Economic Trends v. Heckler*, 756 F.2d 143, 154 (D.C. Cir. 1985) explained, "[s]imple, conclusory statements of "no impact" are not enough to fulfill an agency's duty under NEPA." Id. To accept such conclusory statements that impacts are "minimal" without any further explanation, "would violate the principles of reasoned decisionmaking, NEPA's policy of public scrutiny, and CEQ's own regulations." Id. (internal citations omitted). *See also Te-Moak Tribe of Western Shoshone of Nev. v. United States DOI*, 608 F.3d 592, 604 (9th Cir. 2009) (finding that the agency's "conclusory analysis" of the project's cumulative impacts violated NEPA where the Environmental Assessment merely stated that no cumulative effects would occur and that all impacts will be avoided or mitigated);

Muckleshoot Indian Tribe v. United States Forest Serv., 177 F.3d 800, 811 (9th Cir. 1999) (rejecting an EIS where sections were "devoid of specific, reasoned conclusions" and provided very broad and general statements of the cumulative effects of a proposed project); *Neighbors of Cuddy Mountain v. United States Forest Serv.*, 137 F.3d 1372, 1380 (9th Cir. 1998) ("General statements about 'possible' effects and 'some risk' do not constitute a 'hard look' absent a justification regarding why more definitive information cannot be provided."); *see further Defenders of Wildlife v. Babbitt,* 130 F. Supp. 2d 121, 138 (D.D.C. 2001) ("Because the discussion of the cumulative impacts consists only of 'conclusory remarks, statements that do not equip a decisionmaker to make an informed decision about alternative courses of action, or a court to review the Secretary's reasoning,' the Court will remand the EIS for further consideration of such impacts and further revisions to the EIS as warranted.").

Despite FPL's and the NRC Staff's assertions to the contrary, FPL – not Joint Petitioners – must conduct the requisite impact analysis.[2] FPL Answer at 38; NRC Staff Answer at 15. As the Court in *Te-Moak Tribe* explained, requiring Joint Petitioners to demonstrate the impacts of FPL's proposed action "would 'thwart' one of the 'twin aims' of NEPA-to 'ensure[] that the *agency* will inform the *public* that it has indeed considered environmental concerns in its decisionmaking process." *Te-Moak Tribe* 608 F.3d at 605 (quoting *Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97

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[2] Throughout their Answers, FPL and NRC Staff repeatedly exaggerate petition requirements and allege Joint Petitioners fail to provide enough detail or specificity to support contentions. While this Reply does not respond to this argument each time it is raised, Joint Petitioners generally assert that the Petition includes sufficient support for each contention pursuant to10 C.F.R. §2.309 (f) (ii) and (v), which require, respectively, that petitioner's "provide a *brief explanation* of the basis for the contention" and "a *concise statement* of the alleged facts or expert opinions which support the requestor's/petitioner's position." (emphasis added). Where the Petition meets these criteria, the contentions raised are admissible.

(1983)) (emphasis in original); *see also* 10 C.F.R. § 51.45 (the ER shall contain "sufficient data to aid the Commission in its development of an independent analysis" of potential environmental impacts of the proposal, as required by NEPA); 10 C.F.R. § 51.41; Preparation of Environmental Reports for Nuclear Power Stations, U.S. Nuclear Regulatory Commission Regulatory Guide 4.2, NUREG-0099 Revision 2, at ix (July 1976). Indeed, Joint Petitioners only need to show the *potential* for impacts. *Te-Moak Tribe* 608 F.3d at 605. This is precisely what Joint Petitioners have done. In their Petition, Joint Petitioners contend that the lack of information regarding the ratio and quantity of water that will be withdrawn from the radial collector well system and the MDWASD may result in impacts to the Bay and the existing plant and animal communities – impacts that FPL fails to adequately examine in its ER. ER at 11. Exactly what these impacts will be, exactly what species will be impacted, and the degree of likelihood that these impacts will occur, are issues reserved to the NEPA process – to be addressed by the applicant and agency, not the Joint Petitioners. *See City of Davis v. Coleman*, 521 F.2d 661, 671 (9th Cir. 1975) ("Compliance with [NEPA] is a primary duty of every federal agency; fulfillment of this vital responsibility should not depend on the vigilance and limited resources of environmental plaintiffs."); *City of Caramel-By-The Sea v. United States DOT,* 123 F.3d 1142, 1161 (9th Cir. 1996) (government, not plaintiffs, has the burden of describing cumulative impacts).

As discussed above, Contention NEPA 1.1 properly demonstrates that a genuine dispute on a material issue exists as required by 10 C.F.R. § 2.309 (f)(1)(vi), and challenges to the merits of a claim should be left to litigation. As discussed in the

Petition, all other requirements of § 2.309 are satisfied. For the foregoing reasons, Contention NEPA 1.2 should be admitted.

> **Contention NEPA 1.3: The ER provides insufficient data on the current species diversity, abundance, and habitat utilization in Biscayne Bay, and particularly in the vicinity of the radial wells, to aid the Commission in assessing the impacts of the radial collector well system to the Biscayne Bay ecosystem.**
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> **Contention NEPA 1.4: The ER provides insufficient data on the habitat conditions and habitat requirements in the Biscayne Bay, and particularly in the vicinity of the radial wells, to aid the Commission in assessing the impacts of the radial collector well system to the Biscayne Bay ecosystem.**

REPLY TO FPL AND NRC STAFF ANSWERS

Contentions NEPA 1.3 and 1.4 explain why data on current species diversity, abundance, and habitat utilization, conditions, and requirements in Biscayne Bay are material, provides sufficient facts to support this position, and offers sufficient information to establish that the ER does not comply with NEPA requirements. 10 C.F.R. § 2.309 (f)(1)(iv)-(vi). Thus, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309, and Contentions NEPA 1.3 and 1.4 are admissible.

Neither the ER nor FPL's Answer indicates that FPL has performed any baseline surveys for plant cover abundance for the area within and surrounding the proposed radial wells. There is also no baseline survey of seagrass cover and benthic fauna in the vicinity of the proposed radial wells. The ER's description of seagrasses that FPL notes in its Answer is merely generalized information about the presence of seagrasses in Biscayne Bay and Card Sound, not surveys of the seagrass cover and benthic fauna in areas near the proposed radial well sites. FPL Answer at 52. Again, while FPL may take issue with the importance of such studies because it does not believe salinities around the well sites will be significantly impacted and therefore there will be no resulting impacts

to seagrasses and benthic fauna, this is an argument based on the merits and not on whether the Petition has identified a genuine dispute for the need of seagrass surveys to inform the Commission's decisionmaking process. *See* Reply 5-6.

Likewise, NRC Staff's arguments that Joint Petitioners must explain the nature or potential significance of impacts and the particular flora and fauna that would be impacted are equally unavailing. NRC Staff Answer at 23. As previously discussed above, this is neither Joint Petitioners' burden under NEPA, *see Te-Moak Tribe* 608 F.3d at 605, nor the appropriate measure for whether Joint Petitioners have submitted an admissible contention. *See Crow Butte Resources* 67 N.R.C. at 292.

Indeed, both FPL and the NRC Staff fail to identify any data on the habitat conditions and habitat requirements in the vicinity of the radial wells to aid the Commission in assessing the impacts of the radial collector well system to the ecosystem. None of the documents FPL references specifically address this issue. Thus, a dispute exists as to whether FPL has provided the Commission with sufficient data to assist it in the decisionmaking process. *See* 10 C.F. R. § 2.309(f).

Accordingly, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309(f) by explaining why data on current species diversity, abundance, and habitat utilization, conditions, and requirements in Biscayne Bay are material, providing sufficient facts to support this position, and offering sufficient information to establish that the ER does not comply with NEPA requirements. 10 C.F.R. § 2.309 (f)(1)(iv)-(vi). Thus, Contentions NEPA 1.3 and 1.4 are admissible.

Contention NEPA 1.5: The ER provides insufficient data on the direct, indirect and cumulative impacts of the radial collector wells.

Impacts to Salinity Levels in Biscayne Bay

REPLY TO FPL AND NRC STAFF ANSWERS

Contention NEPA 1.5 explains why direct, indirect, and cumulative impacts of the radial collector wells are material, provides sufficient facts to support this position, and offers sufficient information to establish that the ER does not comply with NEPA requirements. 10 § 2.309 (f)(1)(iv)-(vi). Thus, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309 and Contention NEPA 1.5 is admissible.

FPL's Answer begins with a rather feeble and disingenuous argument that the ER adequately discusses the impact of radial collector well operation of local salinity. FPL Answer at 58. As discussed earlier, conclusory statements without any sort of actual analysis are insufficient under NEPA. *See e.g. Foundation of Economic Trends* 756 F.2d at 154. FPL cites to one section of the ER to support its assertion:

> Operation of radial collector wells installed beneath Biscayne Bay would not impact the water quality of the bay. Although recharge would occur from the bay, it is estimated to be a small percentage of natural freshwater recharge. Effects on salinity of the bay, based on the predicted amount of withdrawal versus the natural recharge, would be minimal.
>
> Monitoring wells would be installed and used to monitor the groundwater level and water quality at and near the radial collector well locations to ensure impacts to local water quality, particular surface water quality, are minimal. Impacts to water quality from operation of the radial collector wells would be SMALL and not require mitigation. ER 5.2-21.

FPL Answer at 58, citing ER 5.2-2.1.

Statements such as "[e]ffects on salinity of the bay…would be minimal," that "[o]peration of radial wells installed beneath Biscayne Bay would not impact the water quality of the bay" (of which salinity is a component) or that "impacts to water quality from the operation of the radial collector wells would be SMALL and not require mitigation" are clearly not discussions of the potential impacts, let alone the types of

meaningful discussions and analyses that NEPA requires. *See Muckleshoot Indian Tribe*, 177 F.3d at 811; *Defenders of Wildlife v. Babbitt,* 130 F. Supp. 2d at 138.

Further, the conclusory statements found within ER 5.2-21 are themselves contradictory. The section begins with a statement that the radial wells "would not impact the water quality of the bay" and ends with a statement that "impacts to water quality from operation of the radial collector wells would be SMALL." Either there are no impacts or there are impacts. Such disparate statements demonstrate that FPL is uncertain about the potential impacts and further demonstrates the need for FPL to provide a meaningful discussion – one that will inform the Commission in its decisionmaking and in its preparation of an EIS. *See Center for Biological Diversity v. National Highway Traffic Safety Admin.*, 538 F.3d 1172, 1215-1216 (9th Cir. 2008) (pointing to inconsistent statements in an EA in finding an EA inadequate under NEPA). Thus, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309(f), and Contention NEPA 1.5 is admissible.

Existing Saltwater Plume

REPLY TO FPL ANSWER

Joint Petitioners explain why the existing saltwater plume is material, provide sufficient facts to support this position, and offer sufficient information to establish that the ER does not comply with NEPA. 10 C.F.R. § 2.309 (f)(1)(iv)-(vi). Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309(f), and NEPA Contention 1.5 is therefore admissible.

FPL erroneously argues that Joint Petitioners misrepresent contents of the ER when Joint Petitioners assert that the ER fails to acknowledge a hypersaline plume. FPL

Answer at 60. In FPL's dismissive treatment of the issue, FPL relies on three sentences in the ER: (1) "The Biscayne aquifer beneath the Turkey Point plant property is connected hydrologically to both Biscayne Bay and the cooling canals of the industrial wastewater facility"; (2) "the water in the industrial wastewater facility is hypersaline with salinity concentrations approximately twice that of Biscayne Bay"; and (3) "the industrial wastewater facility…discharges hypersaline water to the Biscayne aquifer." FPL Answer at 60.

These statements tell the Board nothing about the *underground hypersaline plume,* much less include discussion of the potential cumulative impacts of the proposed action as a result of the plume's migration stemming from the plant's current operations. *See Muckleshoot Indian Tribe*, 177 F.3d at 811; *Defenders of Wildlife v. Babbitt,* 130 F. Supp. 2d at 138. Either FPL hopes to obscure this issue through such vague statements as those contained in the ER and cited to in its Answer, or it really believes that these vague statements sufficiently identify and discuss the hypersaline plume and the cumulative impacts. Regardless of FPL's justification for its failure to include this critically important information in the ER, the ER's limited sentences do not satisfy the mandates of NEPA and the NRC regulations. While FPL asserts that it need not address "every environmental impact," the "hard look" doctrine requires a rigorous analysis of the environmental consequences of a proposed action. Id.

NRC's regulations implementing NEPA place the burden on the permit applicant to provide in the ER "sufficient data to aid the Commission in its development of an independent analysis" of potential environmental impacts of the proposal, as required by NEPA. 10 C.F.R. § 51.45(c); s*ee also* 10 C.F.R. §51.41; Reg. Guide 4.2 at ix. The

regulations include a mandatory requirement that the ER "shall include an analysis that considers and balances the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and alternatives available for reducing or avoiding adverse environmental effects." Id. Further, the ER "shall, *to the fullest extent practicable*, quantify the various factors considered." Id. (emphasis added). In addition, the applicant has an affirmative duty to "include adverse information" in the ER. Id. at § 51.45(e). The ER simply fails to contain the required information; the underground saltwater plume is not clearly identified, much less discussed.

Joint Intervenors' concerns regarding the ER's treatment of the saltwater plume were echoed in the August 2010 scoping comments, submitted by the Department of Interior ("DOI"). *See* U.S. Department of the Interior, *FPL, Turkey Point Units 6 and 7 COL*, Scoping Comments (Aug. 16, 2010) (Exhibit 1). On page five, DOI explains that "FPL's current groundwater model fails to simulate actual or planned conditions that include … hypersaline plume migration" among other things. DOI further explains in Attachment 1, that FPL's groundwater modeling is inadequate because, among other things, the constant density assumption "cannot adequately determine the effects of the hypersaline plume eastern migration and bay salinity impacts due to the operation of the RCWs and dewatering activities." Id. at 12; s*ee also* id. at 14 (noting that "[t]he effects of dewatering on the Biscayne Aquifer (e.g., hypersalinity plume migration, salt water intrusion, etc.) during plant construction were based on the dubious current model, and warrants further evaluation.").

The Florida Department of Environmental Protection ("DEP") has also expressed concern about the plume. In a 2009 memo regarding FPL's NPDES Permit Renewal, DEP staff stated, "it is inaccurate to describe the [cooling canal system ("CCS")] as a 'closed loop' system, since we now know there is a plume of hypersaline water moving west from the CCS." *See* Memo from Tim Powell to March Harris, November 16, 2009 (Exhibit 2). DEP staff went on to add, "[i]t is also likely that the CCS is impacting surface waters to the west, or possibly Biscayne Bay to the east. Therefore, a complete analysis of CCS waters should be completed as provided in Section V of the ground water discharge application…" Id.

Further, on October 16, 2009, FPL entered into an agreement with the South Florida Water Management District to assess and monitor the effects of increasing salinities within the area of the proposed project site. Fifth Supplemental Agreement Between the South Florida Water Management District and Florida Power & Light Company, October 16, 2009 (Exhibit 3). The agreement outlines recent monitoring data, which indicates the presence of a westward migration of a salt water plume, and expresses a need to delineate the extent of that salt intrusion. Id. at 2-3. Exhibit B to the agreement – the FPL, South Florida Water Management District, Florida Department of Environmental Protection, and Dade County Environmental Resources Management's revised monitoring plan titled "Turkey Point Plan Groundwater, Surface Water and Ecological Monitoring Plan" (the "Monitoring Plan") – identifies monitoring for the delineation of the environmental impacts of the hypersaline cooling canals. Included in the multi-agency Monitoring Plan are "Conditions of Certification IX and X related to the FPL Turkey Point Power Plant Uprate" (of Units 3 & 4) wherein it identifies a

hypersaline plume and calls for FPL to (1) "delineate the vertical and horizontal extent of the hyper-saline plume that originates from the cooling canal system and to characterize the water quality including salinity and temperature impacts of this plume for the baseline condition; (2) determine the extent and effect of the groundwater plume on surface water quality as a baseline condition; and (3) detect changes in the quantity and quality of surface and groundwater over time due to the cooling canal system associated with the Uprate project…" Id. at 79. References to the westward movement of saline water away from the cooling canal system are also found in an August 3, 2010 letter from the Executive Director of the South Florida Water Management District responding to FPL's 2008 and 2009 Annual Reports for a ground water monitoring program conducted pursuant to a 1983 agreement between FPL and the District. *See* Letter from Carol Ann Wehle, Executive Director, South Florida Water Management District, to John Jones, FPL, August 3, 2010 (Exhibit 4).

FPL curiously fails to mention any of this in its ER. While FPL appears to concede by omission that it has not provided the requisite data or information on the plume, it dismisses Joint Petitioners' concerns as a one-dimensional issue with the rather flippant remark that "[c]ommon sense would seem to indicate that, if hypersaline water is drawn into the radial collector wells it would serve to reduce both saltwater intrusion and size of the hypersaline plume. That would be consistent with Petitioner's state goals of maintaining natural salinity levels in the Biscayne aquifer." FPL Answer at 60.

FPL misunderstands the issue. As Contention NEPA 1.5 explains, the radial wells would be located within or adjacent to a hypersaline plume that is located beneath ground. Petition at 23-24. The ER contains no information regarding the delineation of

this plume and the extent to which this plume would be affected by the proposed groundwater withdrawals via the radial collector wells. Petition at 24. In addition to the potential capture of the groundwater plume by the radial wells, the wells could "redirect" or "otherwise affect" groundwater from the plume and there is no discussion of the potential impacts, including cumulative impacts of "inducing ground water flows towards proposed radial wells." Petition at 24. Clearly, Joint Petitioners' contention is not just about the potential capture of this groundwater plume, as FPL would like the Board to believe, but how the operation of these wells could affect salinity levels in the area by redirecting the plume and inducing it towards the wells.

Further, as explained earlier, Joint Petitioners are under no duty to provide a detailed discussion of the specific impacts that will occur and how the radial well's operations in conjunction with the plume would harm the Bay. *See Te-Moak Tribe*, 608 F.3d at 605; *Coleman*, 521 F.2d at 671; *City of Caramel-By-The Sea ,* 123 F.3d at 1161. Nor are Joint Petitioners required at this time to prove that the potential impacts discussed above will occur. *See Wash. Pub. Power Supply Sys.*, 17 N.R.C. at 551 n.5.

Given that the Petitioners have identified sufficient information on the existence of this plume, and the fact that its potential effects have been the focus of both federal and state agencies, there is a genuine dispute as to the significance of this plume in relationship to the construction and operation of Units 6 and 7, its potential interaction with the radial wells, and the cumulative impacts that could result. Therefore, contrary to FPL's assertions, the ER's failure to discuss any of this as required by NRC regulations is the subject of dispute and "could make a difference in the outcome of the licensing

proceeding." As Joint Petitioners satisfy 10 C.F.R. § 2.309, Contention NEPA 1.5 is admissible.

REPLY TO NRC STAFF ANSWER

NRC Staff's argument that the Petition has not asserted an admissible contention because it does not "clearly contradict certain sections of the ER and thus has failed to identify a genuine dispute with the ER's analysis on a material issue of law or fact" is without merit. *See* Staff Answer at 34. Contrary to these claims, Contention NEPA 1.5 demonstrates that information regarding the wells' capture and redirection of groundwater is material, provides sufficient facts to support this position, and provides sufficient information to establish that the ER does not comply with NEPA. 10 C.F.R. § 2.309 (f)(1)(iv)-(vi). Thus, 10 C.F.R. § 2.309 (f) is satisfied and therefore Contention NEPA 1.5 is admissible.

NRC Staff argues:

> "Biscayne aquifer beneath the Turkey Point plant property is connected hydrologically to both Biscayne Bay and the cooling canals of the industrial wastewater facility." ER § 5.2.3.2.1. The ER also states, in part of its discussion regarding radial collector wells, that a portion of the recharge to the wells "would be from groundwater beneath the plant property[.]" Id. at § 5.2.3.2.3. The ER therefore concludes that "impacts to groundwater quality as a result of radial collector well operations would be SMALL and not require mitigation." Id. The ER asserts that "the existing units use of groundwater does not overlap with the uses for operation of Units 6 & 7" and concludes that "cumulative impacts to groundwater quality would not result." ER § 5.11.2.3. The Petition does not cite to any of these portions of the ER, nor do [Joint] Petitioners explain how their reference to an existing groundwater plume contradicts the ER's conclusions with respect to the existing and anticipated groundwater quality in the vicinity of the Turkey Point plant."

NRC Staff Answer at 30.

NRC Staff's argument is not based on whether there is a dispute of the facts, but rather based on its agreement with FPL's conclusions in the ER that the impacts would be

"small" or would not occur. As discussed earlier, the issue before the Board is not who is right, but instead whether a dispute exists. *See Wash. Pub. Power Supply Sys.*, 17 N.R.C. at 551 n.5; *Crow Butte*, 67 N.R.C. at 292. NRC Staff's circular conclusion that because the ER finds there to be no impacts associated with the plume, there is no dispute, is plainly incorrect. Similarly, NRC Staff's argument that the contention is inadmissible because Joint Petitioners allegedly fail to explain why the wells' capture or redirection of groundwater would be significant, reads requirements into NEPA that simply are not there. As explained earlier, Joint Petitioners are under no duty to provide detailed discussions of the specific impacts that would result. The law is clear. That burden is on the applicant in the preparation of the ER and ultimately the agency in its preparation of an EIS for this project. See 10 C.F.R. § 51.45(c), §51.41; Reg. Guide 4.2 at ix (explaining the requirements of applicants); *See Te-Moak Tribe*, 608 F.3d at 605; *Coleman*, 521 F.2d at 671; *City of Caramel-By-The Sea ,* 123 F.3d at 1161 (explaining it is the burden of the agency not plaintiffs to identify, discuss and analyze the environmental impacts of a project under NEPA). Because Joint Petitioners have satisfied 10 C.F.R. § 2.309 (f), Contention NEPA 1.5 is admissible.

Comprehensive Everglades Restoration Plan ("CERP")

REPLY TO FPL AND NRC STAFF ANSWERS

Contention NEPA 1.5 establishes that impacts the proposed radial wells will have on CERP are material, provides sufficient facts to support this position, and offers sufficient information to establish that the ER does not comply with NEPA. 10 C.F.R. § 2.309 (f)(1)(iv)-(vi). Thus Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309 (f) and Contention NEPA 1.5 is admissible.

FPL's Answer to Joint Petitioners' Contention NEPA 1.5 regarding CERP is nothing more than an attempt to avoid discussing this extremely important issue in the ER. FPL asserts, "[Joint] Petitioners go on to allege that the Florida DEP has asserted that the radial wells may extract fresh water from the aquifer, 'thus counter acting CERP projects intended to deliver fresh water to the Bay's littoral zone.'" FPL Answer at 61. FPL then concludes that Joint Petitioners have failed to allege that the operation of the radial collector wells impact freshwater objectives of CERP. Id. The opposite is true. Joint Petitioners contend that the use of radial wells could be detrimental to CERP objectives of restoring more fresh water flow to Biscayne Bay and, given that the wells will operate at a depth of 40 feet (a fact FPL glosses over), may extract freshwater from the aquifer. Petition at 24-25. Additionally, the Florida DEP has noted that operation of the radial wells could counteract CERP projects intended to deliver fresh water and identified this as an issue in its comments to FPL. Petition at Exhibit 5. There is a material dispute as to the potential impacts the proposed radial wells will have on CERP (and specifically the Biscayne Bay Coastal Wetland "BBCW" project) and how this could result in less freshwater being delivered to the Bay.

Despite this dispute on the facts, FPL argues that NEPA does not require a discussion of CERP, instead requiring only an evaluation of the proposed action on the environment, not its impacts on other projects. FPL Answer at 57-58. FPL misunderstands Joint Petitioners' Contention NEPA 1.5. Joint Petitioners assert in their Petition that the proposed radial wells may withdraw much needed freshwater from the system, thus counteracting the BBCW project objectives of supplying more freshwater into a system that is plagued by high salinity levels. This in turn could negatively impact

the Bay's resources and thus, the environment. Petition at 13-14, 24-25. Further, courts have held that NEPA requires the discussion of a project's relationship with restoration projects and the potential impacts that may occur. *See Border Power Plant Working Group v. Dep't of Energy*, 260 F. Supp. 2d 997 (S.D. Cal. 2003) (discussed in detail in this Reply at 32-34.

Finally, FPL is mistaken when it argues that the law only requires discussion of the pre-existing environmental degradation of the area, not the future water quality benefits that the BBCW will provide the Bay and how these future conditions may be compromised by the proposed project. NEPA requires an EIS to assess the "cumulative impact" of a proposed action, which is defined as the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable *future* actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." 40 C.F.R. § 1508.7 (emphasis added). An EIS "must consider the interaction of multiple activities and cannot focus exclusively on the environmental impacts of an individual project." *Oregon Natural Resources Council Fund v. Brong,* 492 F.3d 1120, 1133 (9th Cir. 2007) (citing *Klamath-Siskiyou*, 387 F.3d at 996) (finding a cumulative effects analysis inadequate when "it only considers the effects of the very project at issue" and does not "take into account the combined effects that can be expected as a result of undertaking" multiple projects). Thus, FPL must do more than just examine the pre-existing conditions that the BBCW is intended to address, but how the proposed project (and its adverse impacts) when added to the BBC project (and its beneficial impacts) will impact the environment.

For the foregoing reasons, 10 C.F.R. § 2.309 is satisfied, and therefore Contention NEPA 1.5 is admissible.

Sea Level Rise

Contention NEPA 1.5 establishes that impacts of sea level rise on the radial collector wells are material, provides sufficient facts to support this position, and offers sufficient information to establish that the ER does not comply with NEPA. 10 C.F.R. § 2.309 (f)(1)(iv)-(vi). Accordingly, Contention NEPA 1.5 is admissible.

The Petition contends that the ER must consider the impacts of sea level rise. *See* Petition at 25. Specifically, Joint Petitioners explain that, because Biscayne Aquifer is extremely porous, increased sea levels will likely raise the general groundwater levels in the region. Id. This, in turn, will lead to saltwater intrusion. Id. And, all of this together will alter the impacts of the radial wells, which "have the potential of withdrawing large amounts of freshwater from the Aquifer and/or the Bay during a time when the ecosystem will be subject to saltwater intrusion." Id. at 25-26. As discussed in greater detail in this Reply for Contention 7, NEPA requires consideration of such impacts. *See* 10 C.F.R. §51.45; *see* Reply at 83-93.

Instead of refuting that NEPA requires this analysis, FPL argues that the NEPA is satisfied by discussion in the Final Safety and Analysis Report (the "FSAR"). FPL Answer at 62-63. For the reasons explained in the Reply for Contention 7, such an argument is without merit. NEPA requires the applicant to address *environmental* impacts in the ER, 10 C.F.R. § 51.45; the FSAR's *safety* analysis is irrelevant. The supplemental guidance referenced by FPL, may allow an applicant to consider safety impacts in its FSAR. *See* U.S. Nuclear Regulatory Commission, Supplemental Staff

Guidance to NUREG 1555, Environmental Standard Review Plan (ESRP) for Consideration of the Effects of Greenhouse Gases and of Climate Change, ADAMS Accession Number ML100990185 (April 8, 2010) (the "Supplemental Guidance"). However, it requires an applicant to consider, in its NEPA analysis, "changes in significant resources areas that may occur during the lifetime of the proposed action as a result of climate change," and "changes in climate that may occur during the period of the proposed action on susceptible environmental resources." Id. at 10; *see also* Reply 83-93. This analysis is lacking in the ER.

Because Joint Petitioners have set forth a genuine dispute on the material issue of assessing the impacts of climate change, as these impacts relate to radial wells, Contention NEPA 1.5 is admissible.

Contention NEPA 2: The ER fails to adequately address the direct, indirect, and cumulative impacts of the reclaimed wastewater system on groundwater, air, surface water, wetlands, and CERP.

> **Contention NEPA 2.1: The ER fails to adequately identify, analyze, and discuss the potential impacts on groundwater quality of injecting polluted wastewater into the Floridian Aquifer via underground injection.**

REPLY TO FPL AND NRC STAFF ANSWERS

Contrary to FPL's and the NRC Staff's assertion, Contention NEPA 2.1 explains why vertical migration is material to the NRC findings, provides sufficient facts that support this position, and offers sufficient information to establish that the ER does not comply with NEPA requirements. 10 C.F.R. § 2.309(f)(1)(iv)-(vi). Thus, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309 and therefore Contention NEPA 2.1 is admissible.

Contention NEPA 2.1 demonstrates that the ER does not comply with 10 C.F.R. §

51.45(b) because it fails to adequately address potential environmental impacts. *See* Petition at 26-30. Joint Petitioners provide sufficient information to show that FPL's ER failed to make a rigorous analysis on the effects resulting from underground injection of wastewater. *See* id. (citing 70 Fed. Reg. 70513-70532 (Nov. 22, 2005)).

It is well settled that the content requirement of an applicant's ER is subject to the "hard look" doctrine, which requires a rigorous analysis of the environmental consequences of a proposed action. *Hydro Res. Inc.*, 60 N.R.C. 441, 442 (2004). NRC's regulations implementing NEPA place the burden on the applicant to provide in the ER "sufficient data to aid the Commission in its development of an independent analysis" of potential environmental impacts of the proposal, as required by NEPA. 10 C.F.R. § 51.45(c); s*ee also* 10 C.F.R. §51.41; Reg. Guide 4.2 at ix. The regulations require that the ER "shall include an analysis that considers and balances the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and alternatives available for reducing or avoiding adverse environmental effects." 10 C.F.R. § 51.45(c). Further, the ER "shall, *to the fullest extent practicable*, quantify the various factors considered." Id. (emphasis added). In addition, the applicant has an affirmative duty to "include adverse information" in the ER. Id. § 51.45(e). The ER fails to contain the required information; the potential for vertical migration of liquid injectate has not been analyzed.

Contention NEPA 2.1 establishes that FPL failed to adequately address vertical migration of liquid injectate. *See, e.g.,* Petition at 26-30 (citing 70 Fed. Reg. 70513-70532) (stating that "movement of injected fluid into USDWs [("Underground Source of Drinking Water")] . . . has been confirmed . . . ."). Contrary to FPL's and the NRC

Staff's assertion, Contention NEPA 2.1 provides sufficient authority that contradicts FPL's mistaken belief that vertical migration is not a "reasonably foreseeable event." FPL Answer at 67. The EPA has documented that "the movement of injected fluid into USDWs either has been confirmed or is suspected at eight facilities . . . ." Petition at 27 (citing 70 Fed. Reg. 70513-70532; Relative Risk Assessment of Treated Wastewater in South Florida (EPA 816-R-03-010), available at: http://www.epa.gov/region4/water/uic/ra.html (last visited September 16, 2010)). The "petitioner is not required to provide an exhaustive discussion in its proffered contention, so long as it meets the Commission's admissibility requirements." *Pa'ina Hawaii, LLC,* 63 N.R.C. 99, 108 (2006). All that is required is "a minimal showing that material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate." *Gulf States Util. Co.*, 40 N.R.C. at 51 (internal citations omitted). The EPA's documentation of vertical migration of injected fluids makes it reasonably foreseeable that vertical migration would occur at the Turkey Point site, especially since the documented migration occurred through the same confining unit that FPL plans to utilize. 70 Fed. Reg. 70513-70532.

Furthermore, FPL's own ER is peppered with sources that undercut their misguided belief. *See, e.g.,* ER at 2.3-22 (citing Frederick W. Meyer, Hydrogeology, Ground-water Movement, and Subsurface Storage in the Florida Aquifer System in Southern Florida, G9, Professional Paper 1403-G, U.S. Geological Survey, 1989) ("Hydraulic connection between the upper and lower aquifer is inferred from sinkholes and fractures that transect the middle confining unit."); id. at 2.3-28 (citing Bush & Johnston, Groundwater Hydraulics, Regional Flow and Groundwater Development of the

Floridian Aquifer System in Florida and in parts of Georgia, South Carolina and Alabama, Professional Paper 1403-C, U.S. Geological Survey, 1988) (questioning the homogeneity of the confining unit by stating that leakage coefficient of confining unit is highly variable); id. at 2.3-30 (citing Maliva, Vertical Integration of Municipal Wastewater in Deep Injection Well Systems, South Florida, USA, Hydrogeology Journal, Springer-Verlag, 2007) (stating that vertical hydrologic conductivity, as measured in the confining layer, can be as high as 0.24 feet per day and varies by orders of magnitude). Given the findings of these reports, FPL has not adequately addressed the environmental impacts associated with the proposed injection wells. The ER must take the requisite "hard look" at FPL's plans, given the potential degradation of the nearby USDW. *Hydro Res. Inc.*, 60 N.R.C. at 442.

Similarly, the NRC Staff states, "[Joint] Petitioners fail to acknowledge that several sections of the ER discuss the potential for groundwater impacts from operation of the deep injection wells." NRC Staff Answer at 39 (citing ER §§ 2.3.2.2.2.2; 5.2.1.1.9; 5.2.3.2.4; 6.3.3.2; 6.3.4). However, the sections that the NRC Staff refers to do not adequately discuss vertical migration. In fact, portions of the cited ER sections contradict the NRC Staff's argument and FPL's assumption that vertical migration is not reasonably foreseeable. *See, e.g.*, ER § 5.2.1.1.9 (noting that vertical hydraulic varies by orders of magnitude); id. § 2.3.2.2.2.2 (providing no discussion whatsoever of vertical migration); id. § 6.3.3.2 (discussing preoperational testing, not vertical migration); id. § 6.3.4 (describing how the operation works, not discussing impacts). Like the citations proffered by FPL, the NRC Staff's argument is based on documents that contradict FPL's belief that vertical migration is not reasonably foreseeable.

In an attempt to justify their analysis, FPL and the NRC Staff incorrectly argue that FPL addressed the potential for vertical migration by "providing a bounding analysis of a radiological receptor from the effluent stream." FPL Answer at 67 (citing ER at 5.4-2); NRC Staff Answer at 45. However, FPL's analysis is based on the fundamentally flawed assumption that vertical migration does not occur. *See* ER at 5.4-2. Moreover, the bounding analysis is based on a computer model that is used to analyze releases of radioactive effluents into *surface waters*. FPL Answer at 67 (citing ER 5.4-2). It is impossible to address vertical *groundwater* migration when using a model designed for releases of effluents into *surface waters*. Thus, FPL's own analysis further supports Contention NEPA 2.1 because the model used by FPL does not incorporate the requisite algorithms needed to represent vertical migration in a groundwater system. *See* D.L. Strenge, R.A. Peloquin and G. Whelan, LADTAP II - Technical Reference and User Guide NUREG/CR-4013 PNL-5270 (April 1986). In fact, "the numerical algorithms comprising the LADTAP II code do not consider any of the [groundwater] pathways." Review of Proposed Changes to the Hydrological Models in the LADTAP II Computer Code, NUDOCS 8505060435 1985-04-25 2004-03-01. Thus, FPL's surface water analysis is incapable of accounting for vertical groundwater flow and is therefore inadequate.

In a second attempt to justify their conclusion that "there is no credible pathway for radiological effluents to reach a receptor," FPL discusses a hypothetical scenario. FPL Answer at 74 (citing ER at 5.4-2). However, this is the exact failed argument that is discussed in the preceding paragraph. *Compare* id. at 67 (citing ER at 5.4-2), *with* id. at 74 (citing ER at 5.4-2). FPL relies on this flawed argument in two locations to justify

their disregard of numerous studies that demonstrate that vertical migration has occurred within the same aquifer.

Furthermore, contrary to FPL's and the NRC Staff's assertion, the ER fails to provide a complete and accurate assessment of the chemical and radiological constituents of the plant liquid waste stream. Both FPL and the NRC Staff attempt to shift the burden to Joint Petitioners and argue that the Petition does not discuss what environmental or health impacts are expected from injection of chemicals into the Boulder Zone. *See* NRC Staff Answer at 43; *see also* FPL Answer at 75. First, exactly what the potential impacts will be and the likelihood these impacts will occur are issues reserved for applicant and agency, not the petitioner. *City of Davis*, 521 F.2d at 671. Second, as described in detail above, the Petition includes a discussion of potential environmental impacts: the vertical migration of chemicals from the Boulder Zone into the above USDW. *See* Petition at 26-30. Thus, contrary to FPL's and the NRC Staff's argument, it is FPL's duty to discuss potential environmental impacts, and the Petition illustrates that FPL failed to discuss the fate of chemicals that will be injected into the Boulder Zone.

Lastly, FPL cites *Vogtle ESP* for the proposition that "[a]n application need not include all theoretically possible environmental effects arising out of an action, but instead the analysis may be limited to effects which are shown to have some likelihood of occurring." FPL Answer at 75 (citing *Vogtle ESP*, 69 N.R.C. 613, 631 (2009)). Joint Petitioners agree. The "analysis may be limited to effects which are shown to have *some likelihood of occurring*." *Vogtle ESP*, 69 N.R.C. at 631 (emphasis added). And, for the reasons stated above, Contention NEPA 2.1 contains sufficient information to demonstrate that vertical migration of injected wastewater has "some likelihood" of

occurring.

Accordingly, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309(f) by explaining why vertical migration is material to the NRC findings, providing sufficient facts that support this position, and offering sufficient information to establish that the ER does not comply with NEPA requirements. Thus, Contention NEPA 2.1 is admissible.

> **Contention NEPA 2.2: The ER fails to discuss the impact associated with the construction of pipelines to convey the reclaimed wastewater to the plant's wastewater treatment facility.**

REPLY TO FPL AND NRC STAFF ANSWERS

Contrary to FPL's and the NRC Staff's assertion, Contention NEPA 2.2 explains why the impacts associated with the construction of pipelines is material, provides sufficient facts that support this position, and offers sufficient information to establish that the ER does not comply with NEPA requirements. 10 C.F.R. § 2.309(f)(1)(iv)-(vi). Thus, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309 and therefore Contention NEPA 2.2 is admissible.

Contention NEPA 2.2 demonstrates that the ER does not comply with 10 C.F.R. § 51.45(b) because FPL failed to adequately address impacts associated with the construction of pipelines to convey the reclaimed water from the South District Water Treatment Plant. *See* Petition at 30-31 (citing South Florida Water Management District Third Completeness Comments, FPL Turkey Point Units 6 & 7, Site Certification Application Power Plant & Associated Facilities at 14 (June 4, 2010)) (finding that the application is inadequate with respect to the conflict the placement of pipelines poses to the CERP Biscayne Bay Coastal Wetlands Project).[3] Again, "[a]ll that is required for a

[3] FPL points out that Joint Petitioners cite requests from State agencies and that these documents do not provide adequate support for contentions in an NRC proceeding. FPL Answer at 77. However, FPL

contention to be acceptable for litigation is that it be specific and have a basis." *Wash. Pub. Power Supply Sys.*, 17 N.R.C. at 551 n.5.

In response, FPL provides a three-page block quote from the ER that allegedly addresses the impacts from the pipeline. FPL Answer at 77-80. However, the ER sections cited address the pipeline construction process and reasons why the proposed areas were selected. Id. (citing ER at 4.2-18 to 4.2-19, 4.2-23, 4.3-21 to 4.3-23). As mentioned earlier, FPL's argument that it has "discussed" the impacts is misleading. Conclusory statements such as "[o]verall impacts to aquatic resources would be SMALL," id. at 80, without any accompanying analysis as to why they are "SMALL," is not a discussion and does a disservice to the entire NEPA process. As the court explained in *Foundation of Economic Trends*, "[s]imple, conclusory statements of 'no impact' are not enough to fulfill an agency's duty under NEPA." 756 F.2d at 154. To accept such conclusory statements "would violate the principles of reasoned decisionmaking, NEPA's policy of public scrutiny, and CEQ's own regulations." Id. (internal citations omitted).

In this instance, just saying the impact of a proposed project will be "SMALL", with no explanation of why, is insufficient and NEPA demands more. *Defenders of Wildlife*, 130 F. Supp. 2d at 138 ("Because the discussion of the cumulative impacts consists only of 'conclusory remarks, statements that do not equip a decisionmaker to make an informed decision about alternative courses of action, or a court to review the Secretary's reasoning,' the Court will remand the EIS for further consideration of such

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provides no support for this contention. To the contrary, "[t]he bases for a contention need not originate with the petitioner." *La. Energy Serv's. L.L.P.*, 34 NRC 332, 338-39 (1991). These documents were cited to illustrate that FPL's analysis of this issue was inadequate, and that FPL's analysis continues to be inadequate.

impacts and further revisions to the EIS as warranted.").

Accordingly, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309(f) by explaining why the impacts associated with the construction of pipelines is material, providing sufficient facts that support this position, and offering sufficient information to establish that the ER does not comply with NEPA requirements. Thus, Contention NEPA 2.2 is admissible.

Contention NEPA 2.3: The ER fails to discuss the impacts to CERP associated with the use of reclaimed wastewater to cool Units 6 & 7.

REPLY TO FPL AND NRC STAFF ANSWERS

Contrary to FPL's and the NRC Staff's assertion, Contention NEPA 2.3 explains why the impacts to CERP are material, provides sufficient facts that support this position, and offers sufficient information to establish that the ER does not comply with NEPA requirements. 10 C.F.R. § 2.309(f)(1)(iv)-(vi). Thus, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309 and Contention NEPA 2.3 is admissible.

Contention NEPA 2.3 demonstrates that the ER does not comply with 10 C.F.R. section 51.45(b) because it fails to adequately address the impacts to CERP associated with the use of reclaimed wastewater to cool Units 6 & 7. *See* Petition at 31-32.

FPL argues that NEPA does not require a discussion of CERP, because it only requires an evaluation of the proposed action on the environment, not its impacts on other projects. FPL Answer at 80-83. FPL misunderstands Contention NEPA 2.3. Joint Petitioners assert that the use of 90 million gallons of reclaimed wastewater would have potential adverse effects on the surrounding environment, thus counteracting the BBCW project objectives of supplying more fresh water flows in and around the littoral zone of

Biscayne Bay. Petition at 31-32. This in turn could negatively impact Biscayne Bay's resources. Id.

Further, as discussed above, courts have held that NEPA requires the discussion of a project's relationship with restoration projects and the potential impacts that may occur. The court's opinion in *Border Power* is squarely on point. 260 F. Supp. 2d 997. At issue in *Border Power* was whether certain proposed power generating facilities would reduce water flow and increase salinities into the Salton Sea. Id. at 1022. Plaintiffs argued that the agencies conclusions that there would be no negative impacts were conclusory and not supported by data and analysis as the record revealed that the Salton Sea "is already a damaged resource because of too much salinity and that recovery efforts are underway to reduce the level of salinity." Id. These restoration efforts were undertaken to protect the survival of the region's biodiversity. Id. Defendants on the other hand argued that the proposed actions were consistent with the restoration efforts. Id. at 1023. The court ruled that the agencies' determinations that the actions would not significantly impact the Salton Sea were arbitrary and capricious, as "the record makes clear that the actions will increase the salinity of the Sea, that the Sea is under threat from increasing salinity already, and that *extensive restoration efforts* are underway to reduce the current salinity of the Sea." Id. (emphasis added). The court further rejected Defendants' arguments that the projects and the restoration efforts would work in a "cumulative sense to ameliorate the impact of increased salinity from the power plants," explaining that Defendants overlooked a major factor in the cumulative impact analysis. Id. The current base-line level of salinity (which was already threatening the area's biodiversity) was so high that it required an extensive restoration effort, and new source

of increased salinity, even a small one, could not have an insignificant cumulative impact. Id. Finding that the significance of an impact under NEPA "has less to do with its measurability and everything to do with the context of the impact," the court rejected the agency's claims that such impacts were not measureable and expressed concern that the projects would affect an "ecologically critical area" that is "currently threatened in a way that will only be exacerbated if the proposed actions are undertaken." Id. Accordingly, the court rejected the agency's cumulative effects analysis, finding that the agency had failed to take a "hard look" at the cumulative impacts of the actions on the Salton Sea as required by NEPA. Id.

The court's findings in *Border Power* provide direct support for Joint Petitioners' Contention NEPA 2.3 that FPL must carefully analyze the impacts to CERP and BBCW associated with the use of reclaimed wastewater to cool Units 6 & 7. Thus, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309(f), and Contention NEPA 2.3 is admissible.

Contention NEPA 3: The ER fails to adequately address the direct, indirect, and cumulative impacts of constructing and operating the transmission lines associated with Units 6 & 7 on wetlands (including the Everglades), wildlife (including wading birds, migratory birds, and federally endangered and threatened species), and CERP.

Contrary to FPL and the NRC Staff's assertions, the Petition adequately explains why the issues raised are material to NRC findings; provides a "statement of the alleged facts or expert opinions which support" the position; and offers "sufficient information to show that a genuine dispute exists with the applicant[] on a material issue of law or fact." 10 C.F.R. § 2.309(f)(1)(iv)-(vi). Thus, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309 and Contention NEPA 3 is admissible.

Responding to NRC Staff and FPL's Answers, this Reply first addresses FPL's failure to discuss potential direct, indirect, and cumulative impacts to the environment—including wetlands. Instead, the ER relies on conclusory assertions of small harm and possible mitigation techniques. Next, even where the ER manages to describe some potential impacts, it fails to quantify the factors considered or provide sufficient data to aid the NRC in contravention of 10 C.F.R. § 51.45(c). The ER's discussion of endangered species again fails to consider potential direct, indirect, and cumulative impacts, providing only conclusory reassurance that impacts will be small. Finally, FPL's dismissal of CERP misconstrues its NEPA obligations and disregards relevant caselaw requiring consideration of restoration plans in an applicant's NEPA analysis.

REPLY TO FPL AND NRC STAFF ANSWERS

As mentioned by the NRC Staff, the "ER narrows its discussion of the potential transmission line corridors to a Preferred East, Preferred West, Secondary East, and Secondary West corridors." NRC Staff Answer at 54. Of these corridors, the ER describes two, the Preferred West and Secondary West corridors, that "threaten to impact more than 300 acres of wetlands, [yet] the ER fails to discuss the direct, indirect, and cumulative impacts of constructing and operating the transmission lines in these corridors." Petition at 33.

FPL rejects the Petition, noting that a "cursory review of the COLA reveals that Joint Petitioners' claims are not grounded in a review of the Application." FPL Answer at 85. FPL's Answer, however, miss the mark entirely. Despite citing more than fifteen sections in the ER that purportedly describe "potential impacts of construction, operation, and maintenance with respect to resources within the offsite transmission line corridors,"

FPL illustrates a single description of *potential impacts* to the more than 300 acres of wetlands the transmission lines threaten. NRC Staff Answer at 55-56; *see* FPL Answer at 85-90.

The Staff Answer is correct in stating that "[t]hese sections of the ER appear on their face to discuss potential impacts . . . ." NRC Staff Answer at 56. To comply with NEPA, however, the ER must discuss potential impacts not on the face of the application, but in substance. *See generally* 10 C.F.R. § 51.45 (the "environmental report should contain *sufficient data* to aid the Commission in its development of an independent analysis" (emphasis added)). FPL's Answer illustrates the discrepancy nicely. In the six pages devoted to showing the ER's "extensive" recording of potential impacts, FPL utilizes five block quotes and more than one hundred lines of text to emphasize the ER's contemplation of the transmission lines and access roads' potential impacts on local wetlands. FPL Answer at 85-90. FPL's reproduction of the ER does nothing more than highlight its' misunderstanding of an Applicant's obligation to assess the direct, indirect, and cumulative impacts as required by the Council on Environmental Quality's NEPA implementing regulations. *See* 40 C.F.R. §§ 1508.7, 8; *see also* 10 C.F.R. § 51.45(b)(1). These regulations provide several examples of the impacts the NRC must consider in its EIS—and the applicant must in turn consider in its ER; "Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems . . . . Effects includes ecological, aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative." 40 C.F.R. § 1508.8(b); *see* 10 C.F.R. § 51.14. Cumulative impacts are those that "result[]

from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions . . . . Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." Id. at § 1508.7.

Within the one hundred and eleven lines of ER text cited by FPL, roughly twelve mention possible transmission line impacts on the environment. Instead of impacts, the quoted sections overwhelmingly highlight ways that FPL will mitigate losses or simply ***conclude*** that impacts will be small. For example, FPL cites the ER at 4.1-7:

> [a]lthough impacts to wetlands could potentially occur, they would be limited by careful siting and construction practices to avoid and minimize adverse effects. Where wetland impacts do occur, compensatory mitigation, as required by state and federal agencies, would be provided. Given the careful consideration of land use in the route selection process (Subsection 2.2.2) and the availability of a viable method for mitigation, impacts to offsite land use would be SMALL.

FPL's sole mention of impacts is that they "could potentially occur." Were that not obvious enough by the fact that the proposed corridors go directly through several hundred acres of wetlands or the Preferred corridor's foray through the Everglades, NRC and CEQ regulations require more than the Applicant's conclusory estimate of likelihood of harm. *See, e.g.*, *Found. of Econ. Trends v. Heckler*, 756 F.2d at 154.

The ER's additional consideration of mitigation is welcome, but unavailing. Looking to the ER at 4.1-7 quoted above, it is abundantly clear that the ER did not contemplate any of the proposed considerations mentioned in the CEQ regulations. There is no discussion of "growth inducing effects . . . land use, population density or growth rate, [or] related effects on air and water and other natural systems, including ecosystems." 40 C.F.R. § 1508.8(b). Nor is there any mention of "ecological . . . ,

aesthetic, historic, cultural, economic, social, or health . . . ." Id. The ER simply does not fulfill FPL's obligation to discuss potential direct, indirect, and cumulative impacts. *See* 10 C.F.R. § 51.45.

Both FPL and the NRC Staff attack the Petition by pointing to the ER's conclusion that "impacts to offsite land use would be SMALL." This conclusory argument belies the ER's failure to adequately address the potential impacts of the transmission lines. Between the Staff and FPL Answers, respondents avail themselves of such unfounded conclusions more than a dozen times. The purpose of FPL's ER is to apprise the NRC of the necessary facts to develop an "independent analysis" of potential environmental impacts regarding a COL. 10 C.F.R. § 51.45(c); *see also* 10 C.F.R. §§ 51.14, 51.41; Reg. Guide 4.2 at ix. FPL's conclusions are unsupported in the ER, which contains insufficient additional discussion or analysis as to why impacts will be SMALL. Conclusory statements are "not enough to fulfill an agency's duty under NEPA." *Found. of Econ. Trends*, 756 F.2d at 154; *see also Te-Moak Tribe,* 608 F.3d at 604 (finding that the agency's "conclusory analysis" of the project's cumulative impacts violated NEPA where the EA merely stated that no cumulative effects would occur and that all impacts will be avoided or mitigated); *Muckleshoot Indian Tribe*, 177 F.3d at 811 (rejecting an EIS where sections were "devoid of specific, reasoned conclusions" and provided very broad and general statements of the cumulative effects of a proposed project). The inadequacy of such conclusions is demonstrated by the Answers, which fail to shed light on the potential impacts obviously considered significant enough to mitigate and label as SMALL in the ER. ER §§ 4.1-7, 4.3-13 to 15, 4.4-6 to 7, 4.7-5 to 6, 5.2-13, 5.6-4.

Even where the ER mentions potential impacts, it fails to provide the analysis necessary to satisfy NEPA's requirements. NRC guidance requires:

> The Impacts of the operation of the proposed facility should be, to the fullest extent practicable, quantified and systematically presented. In the discussion of each impact, the applicant should make clear whether the supporting evidence is based on theoretical, laboratory, onsite, or field studies undertaken on this or previous occasions.

Reg. Guide 4.2 at 5-1. NRC regulations also mandate that the ER "shall, to the fullest extent practicable, quantify the various factors considered" and provide "sufficient data to aid the Commission in its development of an independent analysis" under NEPA. 10 C.F.R. § 51.45(c).

FPL quotes five ER sections apparently addressing wetland, fauna, and endangered species impacts due to transmission line operation, maintenance, construction, and occupancy. FPL Answer at 85-90. Within these extensive passages, the ER only manages to consider "rutting of access roads . . . , which could impact surface flow in the vicinity," "erosion through surface water runoff," "temporary drawdown of the water table," and "the permanent loss of some wetland habitats and the potential temporary disturbance to other[s]." Id. The ER has failed to sufficiently consider even a handful of the issues presented by the Petition, including "impacts to sheet flow, impacts to vegetation, aquatic species (fisheries, amphibians, invertebrates), birds (including tree island rookeries), and other fauna." Petition at 34. Additionally, the ER does not even attempt to "quantify the various factors considered" as directed by 10 C.F.R. § 51.45(c).

Furthermore, FPL's characterization of the ER's discussion of endangered species misses the mark. FPL's Answer notes that the "ER provides a discussion of the impacts

[on endangered species] from construction and operation of the transmission corridors." FPL Answer at 88. Citing Chapter 2 of the ER, FPL provides "an ecological snapshot of the wood storks, indigo snakes and panthers." Id. The cited material is just that—a snapshot. It mentions the name of the endangered species, their ecological background, and where they have been seen in the area or on FPL property. Id. (citing ER at 2.4-10, 11). The ER goes on to conclude that "[i]mpacts to other terrestrial resources, including "important" species . . . would be SMALL." ER § 4.3.1.4. And finally, "the presence of known populations of certain threatened and endangered species near these rights-of-way would result in agency consultations and possible mitigation actions . . . ." ER at 5.6-4. As a result of dozens of pages of discussion related to endangered species, a reader can only reasonably conclude that endangered species do exist near the property and that the presence of these populations near FPL "rights-of-way would result in agency consultation and possible mitigation actions . . . ." The ER does not quantify impacts, nor mention what the impacts are likely to be—species migration, population reduction, extirpation—thus making it impossible to conclude from a review of the ER the extent of the potential impacts. The Petition thus establishes a reasonable material dispute in identifying the ER's shortcomings under NEPA.

FPL and NRC Staff can cite a hundred ER sections that mention the matters disputed in Contention NEPA 3, but without a discussion of the "direct, indirect, and cumulative impacts of constructing and operating the transmission lines in these corridors," the ER fails to meet its requirements under NEPA. 40 C.F.R. §§ 1508.7, 8. As such, the Petition sets forth an issue in material dispute because it produces "some doubt about the adequacy of a specified portion of applicant's documents or that provides

supporting reasons that tend to show that there is some specified omission from Applicant's documents." *Florida Power and Light*, 31 N.R.C. 509, 515, 521 n.12 (1990) (citing 10 CFR §§ 2.714(b)(2)(ii), (iii)). FPL patently misconstrues the issue set forth in the Contention, stating, "[a] significant amount of information is presented in the ER and Joint Petitioners have failed to raise any issues with its adequacy. They failed in their 'ironclad obligation' to examine the record when framing their contentions." FPL Answer at 90 (citation omitted). Contrary to FPL's reasoning, the Petition raises a clear issue with the ER's adequacy—it does not support the conclusory arguments therein with the necessary documentation and discussion of direct, indirect, and cumulative impacts to the environment.

Further, the Staff's Answer misconstrues the applicant's burden in analyzing impacts in the ER. It states that "the [Joint] Petitioners do not specify in this assertion what impacts they consider to be likely to occur to those resources as a result of the transmission line construction or to what extent they would be significant to the environmental analysis." NRC Staff Answer at 56. This argument places the burden on Joint Petitioners to outline the impacts that should have been analyzed in the ER. NRC regulations contradict the Staff's argument, clearly placing the burden on the applicant to consider the direct, indirect, and cumulative impacts and require the applicant to provide "sufficient data to aid the Commission in its development of an independent analysis." 10 C.F.R. §§ 51.14; 51.45(b)-(c). Staff's application of *Rancho Seco*, 38 NRC 200, 246 (1993), is irrelevant to the burden it purports to place on the Joint Petitioners. *Rancho Seco* dismissed a contention where the petitioner argued that the applicant must consider non-radiological accidents in its COL. Id. The Applicant there considered a number of

non-radiological accidents in its ER. Id. The petitioner, however, alleged the application failed to consider non-radiological accidents. Id. The Commission dismissed the contention because the petitioner "did not specify any accident which should have been, but was not, considered . . . ." Id. Contrary to the ruling in *Rancho Seco*, the Petition does not "simply allege[] that some matter ought to be considered," but rather identifies the application's failure to meet its NEPA obligations and identifies with specificity the impacts the ER fails to discuss; including impacts to sheet flow, vegetation, aquatic species, birds, and other fauna. Petition at 34. The facts in this proceeding are inapposite, where FPL simply fails to meet its NEPA obligations and Joint Petitioners call attention to such failure. *See Te-Moak Tribe* 608 F.3d at 605; *City of Caramel-By-The Sea,* 123 F.3d at 1161 (government, not plaintiffs, has the burden of describing cumulative impacts); *City of Davis v. Coleman*, 521 F.2d at 671 ("Compliance with [NEPA] is a primary duty of every federal agency; fulfillment of this vital responsibility should not depend on the vigilance and limited resources of environmental plaintiffs.").

Comprehensive Everglades Restoration Plan (CERP)

As discussed in the Petition, transmission lines within the Western Preferred Corridor may adversely affect CERP Alternative "O", which calls for surface water flows to be diverted to wetlands in the area where FPL may construct fill roads. *See* SFMWD Preliminary Statement of Issues at 3. FPL contends that the ER need not discuss the project's effect on CERP because "NEPA's basic requirement is that federal agencies consider the impacts of their actions *on the environment*." FPL Answer at 90. Joint Petitioners could not agree more. It appears, however, that FPL misapprehends CERP's impact *on the environment*.

The ER's failure to discuss the potential impacts on CERP Alternative "O" fatally misconstrues FPL's obligation under NEPA because CERP is a program specifically aimed at remedying an ongoing environmental concern and is directly related to the cumulative impacts that must be considered under CEQ and NRC regulations. *See* 10 C.F.R. §§ 51.45, 51.14; *see also* 40 C.F.R. § 1508.7, 8. CERP is an environmental measure specifically aimed at remedying impacts on salinity in the vicinity of the Everglades. The proposed transmission lines and possible additional roads within the Water Management District's Southern Glades Basin may impede the implementation of Alternative "O", with resulting negative environmental impacts due to further degraded freshwater in the above-mentioned wetlands. Petition at 35-36. It is thus imperative for FPL to take CERP Alternative "O" into consideration if it is to adequately consider cumulative impacts to the environment under CEQ and NRC regulations.

To be sure, courts have held that NEPA requires applicants to discuss the project's relationship with restoration projects and potential cumulative environmental impacts. *See Border Power*, 260 F. Supp. 2d 997; *see also* discussion *supra* Contentions 1, 2 at pp 18-21, 31-32. In accordance with these cases, Joint Petitioners reassert that the ER fails to consider the impacts of new transmission lines to the CERP. Potential obstruction of the CERP program is a cumulative impact that needs to be considered in light of the cumulative impacts requirement in 40 C.F.R. § 1508.7.

FPL quotes ER Section 4.7.2.1, which points out, among other things, that the transmission line "would be constructed using environmental best management practices, including erosion-control devices, matting to reduce compaction caused by equipment, use of wide-track vehicles when crossing wetlands, and restoration activities after

construction." The ER goes on to conclude that "any impacts would be temporary and localized. Accordingly, the cumulative impacts to surface water would be positive and LARGE owing to the EMB and CERP projects. The hydrologic alterations resulting from construction of Units 6 & 7 would be only a SMALL detractor to this overall beneficial impact of restoring wetlands in the area." Id. Again, the ER's conclusory statements and FPL's considerate use of mitigation techniques and "best practices" does not fulfill the ER's requirement to "discuss the specific impacts of constructing, operating, and maintaining transmission lines in these corridors violat[ing] 10 C.F.R. § 51.45." Petition at 36. The court in *Border Power* utilized reasoning easily analogized to the issues here. There, the court stated that the proposed projects would affect an "ecologically critical area" that is "currently threatened in a way that will only be exacerbated if the proposed actions are undertaken." Id. at 1023. Those findings directly support Joint Petitioners' contentions that the ER must analyze the cumulative impacts of the transmission lines on wetland salinity as required by NRC regulations and NEPA.

Nothing FPL or NRC Staff argue in response to Contention NEPA 3 has demonstrated the Petition's failure "to raise any issues with [the ER's] adequacy." Rather, the Answers demonstrate the shortcomings of the ER as highlighted by the Petition's charge that "the ER fails to discuss the direct, indirect, and cumulative impacts of constructing and operating the transmission lines in these corridors." Petition at 33. Joint Petitioners have shown that the lack of information regarding impact to wetlands and endangered species has failed to provide the Commission with sufficient information to assess the impacts of the transmission lines. *See Crow Butte Res*. at 292. Contrary to

FPL and NRC Staff's assertions, Joint Petitioners have complied with 10 C.F.R. § 2.309(f)'s contention requirements and Contention NEPA 3 is thus admissible.

Contention NEPA 4: The ER fails to adequately address the direct, indirect, and cumulative impacts of constructing and operating the access roads associated with Units 6 and 7 on wetlands and wildlife.

REPLY TO FPL AND NRC STAFF ANSWERS

Contrary to FPL and the NRC Staff's assertions, the Petition adequately explains why the issue of impacts of constructing and operating access roads on wetlands and wildlife is material, provides sufficient facts to support this position, and establishes that a genuine dispute exists regarding the ER's discussion of these impacts. 10 C.F.R. § 2.309(f)(1)(iv)-(vi). Thus, Joint Petitioners satisfy the requirements of 10 C.F.R. §2.309, and Contention NEPA 4 is admissible.

The Petition provides sufficient facts that support its position

The Petition cites to Miami-Dade County's Third Completeness Comments ("MDC Comments") to demonstrate that several environmental impacts will result from the construction and operation of access roads. Petition at 37-38. Impacts that FPL fails to adequately address in the ER. FPL and the NRC Staff argue that the MDC Comments do not provide sufficient support for Joint Petitioners' claims that impacts will occur because the MDC Comments only state that such impacts *could* occur. FPL Answer at 93-94; NRC Staff Answer at 65-66. The fact that Joint Petitioners' assert that the impacts will occur or could occur is of no consequence. Under NEPA, a showing that impacts *could* occur is all that is required. *See Te-Moak Tribe,* 608 F.3d at 605. Thus, even if Joint Petitioners have not demonstrated that the impacts will definitively occur, this does not render Contention NEPA 4 inadmissible. *See* id. Furthermore, the MDC Comments

provide adequate support for such a claim, which FPL does not dispute. Moreover, both the ER and FPL's Answer indicate that the construction and operation of access roads will indeed have impacts. *See* FPL Answer at 96 (concluding that impacts resulting from wetland loss would be moderate and may warrant mitigation; approximately 330 acres of wetland habitats would be impacted; impacts of construction on wetland habitats would be moderate) (citing ER §§ 4.3.14-15; 4.3-9). Thus, the NRC Staff's and FPL's argument that Contention NEPA 4 lacks support is meritless.

FPL further argues, "requests for information from State agencies do not in themselves provide adequate support for the allegations in the Contention." FPL Answer at 93. This argument also fails. First, FPL's reliance on *Oconee* for this argument is misplaced. In *Oconee*, a petitioner was simply relying on a request for information to argue that the ER was incomplete. CLI-99-11, 49 N.R.C. 328 (1999). Here, however, Joint Petitioners cite the MDC Comments to illustrate that FPL has continued to shirk their responsibilities by failing to adequately address various impacts of their proposed action. Petition at 36-38. Unlike a Request for Additional Information, the MDC Comments do not make blanket requests for information without any explanation as to why the agency is in need of such information. To the contrary, the MDC Comments set forth various concerns regarding FPL's application and identify the issues and potential impacts associated with FPL's proposed project. The fact that the issues identified in the MDC Comments do not serve as that agency's final report, and are prepared pursuant to a state process, does not take away from their relevance. The impacts identified and discussed may occur, and FPL has a duty to adequately account for such impacts in its ER. *See* 10 C.F.R. § 51.45(b). Thus, the MDC Comments support Joint Petitioners'

claim that FPL's identification and analysis of the impacts associated with the construction and operation of access roads is inadequate.

In addition, FPL appears to want it both ways. While it rejects Joint Petitioners' use of state agency completeness comments to support Joint Petitioners' contentions that FPL has failed to adequately identify and discuss a variety of environmental impacts. FPL Answer at 93, it does not hesitate in relying on other aspects of the state Siting Act process to support its position that its ER satisfies the NEPA and NRC requirements. This includes FPL's reliance on the state process to validate its position that a selection of just two, substantially similar western corridor route alternatives constitutes an acceptable range of reasonable alternatives under NEPA (arguing that the Board should place "significant weight" to the determination of the state process) (see FPL Answer at 114), as well as FPL's argument that state and regional evaluations on the issue of the need for power satisfy NUREG-1555 (*see generally*, FPL Answer at 147-157). While (as Petitioners explain later in this Reply) FPL's use of the state processes in both of these instances is improper and distinguishable from Petitioners' use of completeness comments to support the admissibility of a contention (by highlighting the issues and concerns raised by state agencies having particular expertise or experience dealing with specific issues), it does demonstrate the hypocrisy of FPL's position.

Accordingly, Contention NEPA 4 satisfies 10 C.F.R. section 2.309(f)(1)(v) because is provides sufficient facts to support Joint Petitioners' position.

<u>There is a genuine dispute with the applicant on a material issue of law or fact</u>

Contention NEPA 4 is not a "contention of omission" (FPL Answer at 92), and a genuine dispute with the applicant exists as to the adequacy of the ER in addressing the

impacts of constructing and operating the access roads on wetlands and wildlife. As the Petition explains, the construction and operation of access roads may disrupt ecological corridors, disrupt sheetflow, degrade conservation lands, increase road-kill, increase colonization of invasive/exotic species, and increase dumping and all-terrain vehicles/off road vehicle use. Petition at 37. Despite these impacts, and without any support or analysis, the ER concludes that the impacts would range from small to moderate.

FPL asserts that there is no dispute because the ER sufficiently discusses the impacts. FPL argues that the ER describes the areas in which the roads will be constructed as consisting largely of wetlands, provides the total length of the proposed roadways, and explains that existing roads would be used to the "extent practical" to reduce potential impacts. FPL Answer at 95-96. FPL then explains that the ER states that temporary disturbance would be small, but impacts resulting from wetland loss would be moderate. FPL Answer at 96.

Generalized statements followed by conclusions that the impacts would not be significant are wholly inadequate under NEPA and the NRC regulations. NEPA requires NRC to take a "hard look" at the environmental consequences of the proposed action. *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1211 (9th Cir. 1998). A "hard look" is a "crucial evaluation" and demands that the agency "take seriously the potential environmental consequences of a proposed action." *Ocean Advocates v. U.S. Army Corps of Engineers*, 361 F.3d 1108, 1124 (9th Cir. 2004). NEPA regulations further require that the agency's findings be "supported by evidence that the agency has made the necessary environmental analysis." 40 C.F.R. § 1502.1. "Unsubstantiated determinations or claims lacking in specificity can be fatal for an [environmental study] .

. . . Such documents must not only reflect the agency's thoughtful and probing reflection of the possible impacts associated with the proposed project, but also provide the reviewing court with the necessary factual specificity to conduct its review." *Comm. to Pres. Boomer Lake Park v. Dept. of Transp.*, 4 F.3d 1543, 1553 (10th Cir. 1993).

General statements that there are wetlands and forestlands in the area, that access roads will be constructed within or will traverse these areas, and that the applicant will utilize existing roads to the extent practical, do not provide the Board with sufficient information to prepare an EIS that makes a thoughtful and probing reflection of the impacts associated with these roads. So many questions remain. What specific types of wetlands will be impacted? What are their functional values? What specific types of species occur in these wetlands? How will the loss of these wetlands specifically alter the ecological makeup of the area? These questions must be answered. The scant information provided in the ER and recited by FPL in its Answer lacks the necessary information for the Board to examine these issues. Further, without such information, FPL cannot accurately conclude that such impacts would be small to moderate as there is little, if any, supporting data for FPL's conclusions. While FPL argues that it provided sufficient information, this is an argument of the merits is an issue for another day. *See e.g. Washington Public Power Supply System* 17 N.R.C. at 551 n.5 (citing *Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542 (1980)). The issue before the Board is whether a dispute exists between FPL and the Joint Petitioners. And for the foregoing reasons, a dispute exists and thus Contention NEPA 4 should be admitted.

Further, to the extent that FPL argues that any remaining impacts will be mitigated, this does not determine whether a dispute exists between FPL and Joint Petitioners regarding the adequacy of the ER's impact analysis. FPL's discussion of its proposed mitigation actually supports Contention NEPA 4. As discussed earlier, the ER contains only generalized statements about the nature of the proposed mitigation. Similar to its response to Contention NEPA 5, FPL argues that construction and expansion of roadways would follow "design standards" and "best management practices" and "unavoidable wetland impacts resulting from roadway improvements would be mitigated in consultation with [Florida Department of Environmental Protection] and USAE." FPL Answer at 96-97. FPL continues by stating that it intends to use equipment that will "minimize environmental impacts." Id. This is all part of a "three prong-approach to mitigation." Id. FPL then concludes:

> Because such mitigation measures will be undertaken, and '[b]ecause the roadway improvements would occur in areas that are already disturbed by human activity and existing infrastructure,' the ER concludes that 'land use impacts from the improvements associated with the construction of Turkey Point Units 6 & 7 would be SMALL [with the exception of impacts to wetlands, which would be MODERATE as described above] and not require additional mitigation [with the exception of impacts to wetlands, which would warrant mitigation as described above.

FPL Answer at 98. FPL has not provided sufficient information to support these conclusions. As courts have explained, "unsubstantiated determinations or claims lacking in specificity can be fatal for an [environmental study]." *Comm. to Pres. Boomer Lake Park*, 4 F.3d at 1553. Other than generalized statements about what types of mitigation FPL intends to utilize, FPL proffers no information on where, when, how and why these mitigation techniques will mitigate the anticipated impacts. FPL's conclusory statements that a project will have small to moderate impacts without supporting, detailed

documentation does not provide the Board with sufficient information to take a "hard look" at the environmental impacts as NEPA requires.

Further, FPL argues that there is no dispute because any and all impacts will be "small" or "moderate" as a result of mitigation. *See* FPL Answer at 96-98. However, FPL's argument fails. Agencies cannot avoid preparing an EIS by relying on unsubstantiated claims that mitigation will render environmental impacts insignificant.

Courts have ruled that an agency can rely on mitigation in making a "Finding of No Significant Impact" ("FONSI") under NEPA (i.e., to only prepare an EA and not an EIS) in very limited circumstances. The mitigation must be more than a possibility and there must be some assurance that the mitigation measures "constitute an adequate buffer against the negative impacts that result from the authorized activity to render such impacts so minor as to not warrant an EIS." *Oh. Valley Env. Coal. v. Hurst*, 604 F. Supp. 2d 860, 888 (S.D.W.Va. 2009) (citing *Wetlands Action Network v. U.S. Army Corps of Eng'rs*, 222 F.3d 1105, 1121 (9th Cir. 2000) (internal citations omitted)). As the court in *Ohio Valley* explained, an agency must provide *some* explanation of how or why compensatory mitigation will reduce the cumulative adverse impacts on aquatic resources to insignificance. Id. at 889 (emphasis in the original). Bare assertions of mitigation are insufficient. Id. (citing *O'Reilly,* 477 F.3d at 235) ("[A] bare assertion is simply insufficient to explain *why* the mitigation requirements render the cumulative effects of this project less-than-significant, when considered with the past, present, and foreseeable future development in the project area.") (emphasis in the original). A "perfunctory description" or "mere listing" of mitigation measures without supporting analysis is

insufficient to support a FONSI. Id. (citing *National Parks Conservation Ass'n v. Babbitt,* 241 F.3d 722, 734 (9th Cir. 2001) (internal quotations and citations omitted).

Here, as well as in its Answer to Contention NEPA 5, FPL states a variety of "best management practices," "design standards," and its intentions to comply with federal and state laws. However, there is no detailed discussion of the specific mitigation measures it will implement, where and for what specific impacts these projects will be utilized, and how these mitigation projects will offset those impacts not otherwise avoided or minimized. A genuine dispute exists between FPL and Joint Petitioners in the adequacy of FPL's discussion and analysis of the potential impacts stemming from the construction and operation of more than 10 miles of access roads.

The NRC Staff's argument that no dispute exists is equally unpersuasive. For instance, the Petition points to information contained in a Miami-Dade County completeness letter showing that "reptiles, especially snakes, are disproportionately represented in a roadkill survey . . . through habitat similar to where the proposed construction access road will be located." Petition at 38. (citing MDC Third Completeness Comments). The NRC Staff responds that "neither the Petition nor the Exhibit explain why, even if some roadkill may occur, such impacts would be sufficiently environmentally significant to reptiles generally, let alone more specifically to the Eastern indigo snake, so as to warrant analysis in the ER." NRC Staff Answer at 68.

The potential killing of a federally listed endangered species (e.g., Eastern indigo snake) clearly warrants analysis. *See* 16 U.S.C. § 1531. Under the Endangered Species Act, the unpermitted "take" of even one listed snake is prohibited. Id. § 1538. Moreover, contrary to both the NRC Staff's and FPL's assertions, exactly what these impacts will

be, exactly what species will be impacted, and the likelihood that these impacts will occur, are issues reserved to the NEPA process and thus the applicant and agency, not the petitioner. *See City of Davis*, 521 F.2d at 671; *City of Caramel-By-The Sea,* 123 F.3d at 1161. Contrary to the NRC Staff's position, the take of an endangered species, in this case the eastern indigo snake, is significant and FPL bears the burden of analyzing such environmental impacts. Thus, contrary to FPL's and the NRC Staff's assertion, Contention NEPA 4 satisfies 10 C.F.R. section 2.309(f)(1)(vi) because a genuine dispute exists.

Accordingly, Joint Petitioners satisfy the requirements of 10 C.F.R. section 2.309(f) by providing sufficient facts that support this position, and offering sufficient information to establish that the ER does not comply with NEPA requirements. Thus, Contention NEPA 4 is admissible.

Contention NEPA 5: The ER fails to adequately address (1) all reasonable alternatives to the proposed transmission line corridors and associated access roads, and (2) how the applicant will avoid and/or minimize impacts to wetlands caused by construction and operation of these transmission line corridors and associated access roads.

Joint Petitioners contend that the ER fails to (1) adequately address how the applicant will avoid and/or minimize impacts to wetlands caused by construction and operation of these transmission line corridors and associated access roads and (2) fails to adequately address all reasonable alternatives to the proposed transmission line corridors and associated access roads. FPL and NRC Staff both argue that Contention NEPA 5 should not be admitted. Contrary to FPL and NRC Staff's assertion, Contention NEPA 5 explains why the ER's failure to explore reasonable alternatives is material to NRC findings, provides sufficient facts that support this position, and offers sufficient

information to establish that the ER does not comply with NEPA requirements. 10 C.F.R. § 2.309(f)(1)(iv)-(vi). As such, Joint Petitioners have complied with NRC regulations, and Contention NEPA 5 is admissible.

REPLY TO FPL AND NRC STAFF ANSWERS

Avoidance and Minimization of Impacts

As NEPA Contention 5 demonstrates, FPL has failed to adequately address in its ER how it will avoid and/or minimize impacts to wetlands caused by the construction and operation of transmission line corridors and associated access roads.

FPL correctly states that it "will be required by the [DEP] and the U.S. Army Corps of Engineers to avoid and minimize [impacts to wetlands] to the extent practical, and where impacts were unavoidable, to mitigate the value and functions of any wetlands disturbed by construction." FPL Answer at 106. As FPL acknowledges, the law requires it to first avoid and minimize wetland impacts, and only where such impacts are unavoidable can FPL then turn to mitigation to offset those impacts. *See* id.; s*ee also City of Ridgeland v. Nat'l Park Serv.*, 253 F. Supp. 2d 888, 905 (S.D. Miss. 2002) (describing the three step process under the Clean Water Act); Sections 4.3 and 4.2.1, Basis of Review for Environmental Resource Permit Applications Within the South Florida Water Management District (technical guidance interpreting a similar three step process to "eliminate," "reduce," then "mitigate" for wetland impacts).

Nevertheless, FPL completely glosses over this first step (and the very essence of Joint Petitioners' contention) and immediately concludes: "to satisfy this requirement, the ER describes FPL's 'three approach' to wetlands mitigation . . . ." FPL Answer at 106. In its Answer, FPL ignores its duties to avoid and minimize these wetland impacts

before it turns to mitigation, and accordingly fails to provide the Board with an adequate discussion. FPL's sole focus on mitigation and its failure to point to any section in the ER that discusses how FPL has avoided and/or minimized impacts to wetlands through the selection of either one of the two proposed transmission routes, not only renders the ER inadequate, but also evades NEPA's requirement that these impacts be examined. *See* 10 C.F.R. § 51.45(c) ("The environmental report must include an analysis that considers and balances the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and *alternatives available for reducing or avoiding adverse environmental effects*.") (emphasis added). Moreover, FPL is impermissibly trying to evade its responsibilities under the Clean Water Act (the "CWA")[4] in an effort to skew the U.S. Army Corps of Engineers' (the "Corps") analysis (an agency likely to tier to the NRC EIS) by focusing solely on mitigation and not even attempting to discuss how it will avoid and or minimize impacts to wetlands.[5] This is

[4] The CWA requires a permit applicant to discuss how it will avoid, minimize then if necessary mitigate impacts to wetlands. See 33 USC 1344; 40 CFR 230.10. Only after showing that avoidance and minimization criteria have been met, can the Corps consider mitigation. *Fla. Wildlife Fed'n v. United States Army Corps of Eng'rs*, 401 F. Supp. 2d 1298, 1308 (S.D. Fla. 2005). In 1989, the Corps and EPA entered into a Memorandum of Agreement on Mitigation, which calls for an assessment of the project's impacts before considering the applicant's proposed mitigation. The MOA established a multi-step, sequencing scheme of addressing wetlands impacts. First, the applicant must avoid wetland impacts, where reasonably possible. Second, the applicant must minimize impacts where unavoidable. Third, and finally, the applicant must mitigate for any wetland loss by creating or replacing at least as many acres of wetlands as would be impacted to prevent any net loss of wetlands. *See* Margaret N. Strand, Wetlands Deskbook 132-33 (2d ed. 1997).

[5] FPL has also failed to comply with the mandates of NEPA, the CWA, and NRC regulations. Pursuant to the Memorandum of Understanding between the Corps and NRC, NRC will be the lead agency responsible for preparing the EIS for Units 6 & 7, but the Corps will also participate in this process and possibly "tier" to this EIS for its own assessment of the project's impacts to wetlands. *See* Memorandum of Understanding Between the U.S. Army Corps of Engineers and U.S. Nuclear Regulatory Commission on Environmental Reviews Related to the Issuance of Authorizations to Construct and Operate Nuclear Power Plants (September 12, 2008). As the CEQ explains, "agencies must integrate the NEPA process into other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts." *See* CEQ Forty Most Asked Questions, at 46 Fed. Reg. 18026 (1981). In addition, when one NEPA document is tiered to another, a court will review the two documents together to determine the "sufficiency of the environmental analysis as

perhaps most evident in the fact that both western routes FPL proposes threaten approximately the same amount of wetlands (300 plus acres), and FPL proposes no other alternative to this damaging course of action. ER 4.1.2; 4.3.1.1; 4.3.1.1.4; ER Tables 2.2-2, 3.

Instead of considering such alternatives, FPL argues that it has adequately avoided and minimized impacts through its selection of the "western preferred alternative," which calls for a "land exchange" with the National Park Service. FPL Answer at 107. The fundamental problem with this argument is that the avoidance and minimization of impacts is wholly dependent on the selection of the "western preferred alternative". Whether this alternative will actually be implemented is entirely unknown, as it remains subject to a number of factors (including the Department of Interior's willingness to enter into the land exchange). If the land swap alternative is not exercised, and FPL instead selects the secondary western corridor, FPL has pointed to no other means of avoiding and reducing impacts to hundreds of acres of wetlands within and around Everglades National Park. Petition at 41-43. Moreover, even assuming the preferred alternative is selected, FPL provides little discussion of how it intends to avoid and minimize impacts to roughly the same amount of wetlands occurring adjacent to Everglades National Park. In either instance, there is no consideration of a less damaging

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a whole." *Southern Oregon Citizens Against Toxic Sprays v. Clark*, 720 F.2d 1475, 1480 (9th Cir. 1983), cert. denied, 469 U.S. 1028, 105 S. Ct. 446 (1984); s*ee also Headwaters v. Bureau of Land Management*, 665 F. Supp. 873, 877 (D. Or. 1987) (stating that a court must examine both tiered documents together to determine whether they present a "reasonably thorough discussion" of impacts). It is therefore imperative that FPL comply with the mandates of NEPA, the CWA, and NRC regulations *now* and analyze all reasonable alternatives to impacting wetlands and avoid, minimize, and if need be mitigate impacts to wetlands.

approach – one that would truly avoid impacting more than 300 acres of wetlands.[6]

Aside from its failure to adequately address how it intends to avoid and minimize impacts to wetlands, FPL's discussion of how it intends to "mitigate" such impacts is equally deficient. FPL argues that it will rely on "other mitigation measures" including "restrictive land clearing processes," "turbidity screens and erosion-control devices," "existing access roads" and "standard industry construction practices," FPL Answer at 107, but it fails to provide any information on where, when, and how these mitigation measures will be developed and implemented. Nor does FPL provide similar details on the "additional mitigation techniques" it intends to employ, including the "removal of excavated soils, re-contouring the affected area, restoring the corridor segment to preconstruction conditions and, where necessary, reestablishing the vegetative cover." FPL Answer at 108. FPL asserts that maintenance activities will depend on the "location, type of terrain and surrounding environment" and that "environmental best management practices would be used" and "would comply with applicable state requirements" – whatever those state requirements may be. FPL Answer at 108. FPL then concludes that it will utilize the Everglades Mitigation Bank as a "third mitigation option" to purchase and unspecified number of wetland mitigation credits which would presumably help offset an unspecified functional loss in wetland habitat. FPL Answer at 109.

[6] Moreover, to the extent that FPL considers the implementation of the preferred western alternative route as a form of mitigation, in addition to a strategy of avoiding or minimizing wetland impacts, this argument similarly fails because, as explained above, it is entirely unclear whether this alternative will be implemented. This renders the mitigation speculative at best. Courts have routinely rejected such speculative mitigation proposals. *See Davis v. Mineta*, 302 F.3d 1104 (10th Cir. 2002) (finding mitigation measures are speculative without any basis for concluding they will occur); *Wyoming Outdoor Council*, 351 F.Supp. 2d 1232 (D. Wyo. 2005) ("mitigation measures must be more than a possibility"). Further, because mitigation plans must be integrated into a proposal in such a way that it would be impossible to define the proposal without the mitigation, FPL's failure to define its plans to avoid, minimize, or mitigate impacts with or without the preferred western alternative also runs afoul of NEPA. *See Wyoming Outdoor Council*, at 1250 (citing Davis, at 1125; Forty Questions, 46 Fed. Reg. at 18, 038).

Unsurprisingly, generalized statements without any accompanying information detailing just how FPL intends to implement these mitigation measures are entirely insufficient, as evidenced by NRC guidance, federal case law, and federal statutes. NRC advises its staff that "statements related to mitigation should describe the potential effectiveness of the mitigation measures considered and state whether mitigation measures are warranted or not." *See* Standard Review Plans for Environmental Reviews For Nuclear Power Plants, Introduction, NUREG-1555 (1999). Additionally, the Supreme Court has explained, "omission of a reasonably complete discussion of possible mitigation measures would undermine the 'action-forcing' function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989). Finally, NEPA regulations require that an EIS: (1) "include appropriate mitigation measures not already included in the proposed action or alternatives," (40 CFR 1502.14(f)); and (2) "include discussions of…means to mitigate adverse environmental impacts (if not already covered under 1502.14(f))." 40 CFR 1502.16(h). In addition, under 40 CFR 1505.2(c) the agency is required to:

> State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation.

The ER's failure to identify the specific mitigation and other requirements fails this duty. In this instance, FPL lists several mitigation measures without any detailed analysis of their implementation or effectiveness. There is no explanation of just where, when, and how any of these mitigation measures will be developed, constructed, and implemented. Without this kind of detailed information, it is unclear whether the environmental impacts

will actually be "small," "minimal" and/or nonexistent as FPL claims. *See* ER 4.1-7.

Such cursory, haphazard discussion to discussing mitigation has been squarely rejected by the courts. In *City of Carmel-By-the-Sea v. U.S. DOT*, the court found that the Forest Service's perfunctory description of mitigation measures was inconsistent with the "hard look" it is required to render under NEPA. "Mitigation must be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated." 123 F.3d 1142, 1154 (quoting *Robertson v. Methow*, 490 U.S. at 353). "A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA." *Nw. Indian Cemetery Protective Ass'n v. Peterson*, 795 F.2d 688, 697 (9th Cir. 1986), rev'd on other grounds, 485 U.S. 439 (1988); *Neighbors of Cuddy Mountain,* 137 F.3d at 1380-81 ("…perfunctory descriptions of mitigating measures is inconsistent with the 'hard look' [that] is required under NEPA").

Moreover, NEPA demands that if an applicant is to rely on mitigation to offset the impacts of a proposed project, it must be supported by analytical data. *See League of Wilderness Defenders v. Forgren*, 309 F.3d 1181, 1192 (9th Cir. 2001). In this instance, FPL offers no analytical data to support its proposed mitigation measures and instead rattles off a list of good management practices it intends to implement. (FPL Answer at 107-108). NEPA demands more. *See Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1151 (9th Cir. 1998) ("Without analytical detail to support the proposed mitigation measures, we are not persuaded that they amount to anything more than a 'mere listing' of good management practices.").

In sum, the ER does not provide a comprehensive analysis of the specific actions FPL plans to take to avoid, then minimize, then if need be, mitigate impacts to the more

than 300 acres of wetlands in either of its two chosen routes. The ER fails to provide the Commission with sufficient information to make an informed decision in preparing an EIS and thus violates 10 C.F.R. § 51.45(c). As such, Contention NEPA 5 sets forth a genuine dispute regarding the adequacy of the ER, and is admissible pursuant to 10 C.F.R. § 2.309.

Alternatives

REPLY TO NRC STAFF ANSWER

While FPL acknowledges that it must analyze alternative transmission line corridor routes under NEPA, *see* FPL Answer at 110, citing NUREG-1555, Section 9.4.3; *Kansas Gas & Elec. Co*., 5 N.R.C. 1 (1977), NRC Staff inexplicably (and erroneously) argues that the agency has no duty under NEPA to consider alternatives to transmission line corridors. NRC Answer at 76-80. NRC Staff's interpretation is based on a flawed reading and application of NRC rulemaking as well as a fundamental misunderstanding of NEPA.

NEPA "is one of our most important tools for ensuring that all federal agencies take a 'hard look' at the environmental implications of their actions or non-actions." *Sw. Williamson Cnty. Cmty. Assoc. v. Slater*, 243 F.3d 270, 278 (6th Cir. 2001) (citing *Kleppe v. Sierra Club,* 427 U.S. 390, 410 n. 21 (1976)). NEPA requires federal agencies to prepare a "detailed statement" of the environmental impacts of all "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). This detailed statement is an EIS. NEPA further established the Council CEQ to review and develop environmental policies for the nation. 42 U.S.C. §§ 4342-47. Since NEPA's enactment, CEQ has developed a comprehensive set of regulations implementing

NEPA's directives. *See* 40 C.F.R. § 1501 *et seq*. Pursuant to Executive Order No. 11991, these regulations are binding on all agencies. *Morris Cnty. for Historic Pres. v. Pierce,* 714 F.2d 271, 276 (3d Cir. 1983) (citing *People Against Nuclear Energy v. NRC*, 678 F.2d 222, 231 n.13 (1982)) (CEQ guidelines made binding in order to establish uniform procedures for implementing NEPA and to eliminate inconsistent agency interpretations). As the court in *Morris County* explained, "the Supreme Court has held that the CEQ guidelines are entitled to substantial deference in interpreting the meaning of NEPA provisions, even when CEQ regulations are in conflict with an interpretation of NEPA adopted by one of the Federal agencies." 714 F.2d at 276 (citing *Andrus v. Sierra Club*, 442 U.S. at 358) (CEQ's interpretation given precedence over contrary interpretation of NEPA adopted by Department of Interior).

CEQ regulations and judicial interpretations mandate meaningful public involvement and require officials to consider and disclose the environmental impacts of the proposal *before* a decision is made. *See, e.g.*, 40 C.F.R. §§ 1500.1(c), 1502.1, 1502.14 (emphasis added). To that end, the EIS must contain a range of reasonable alternatives and the environmental impacts of those alternatives must be evaluated and disclosed. *See* 40 C.F.R. §§ 1500.2(e), 1502.1, 1502.9(a), 1502.14. This discussion of alternatives is essential to NEPA's statutory scheme and underlying purpose. *See, e.g.*, *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228 (9th Cir. 1988), *cited in Alaska Wilderness Recreation & Tourism Ass'n v. Morrison*, 67 F.3d 723, 729 (9th Cir. 1995); *Muckleshoot Indian Tribe,* 177 F.3d at 813. Indeed, CEQ regulations regard the consideration of alternatives as "the heart of the environmental impact statement." 40 C.F.R. § 1502.14.

Despite the importance that NEPA and the CEQ regulations place on the alternatives analysis, NRC Staff contends that it can evade its responsibilities to analyze alternative transmission line routes by relying on a 2007 NRC rulemaking, which it argues exempts alternative transmission line routes from the alternatives analysis. NRC Staff Answer at 76-77. This is a flawed interpretation of that rulemaking and the NRC Staff's position flies in the face of NEPA and the CEQ regulations.

In 2007, the NRC promulgated the Limited Work Authorizations for Nuclear Power Plants Rule ("LWA Rule"), 72 Fed. Reg. 57,416 (2007). The LWA rule redefined the term "construction" under the Atomic Energy Act ("AEA") to exclude certain types of activities from the agency's jurisdiction under the AEA. Id. NRC Staff asserts that these activities include the construction of transmission lines. NRC Staff Answer at 76-77. NRC Staff further asserts that by taking such action, the NRC's "redefinition [of "construction"] reflects its consideration of the proper regulatory jurisdiction of the agency, and properly divides what was considered a single Federal action into private action for which the NRC has no statutory basis for regulation, and the Federal action . . . ." NRC Answer at 76-77. NRC Staff goes on to argue that in responding to public comments during the rulemaking process, the NRC "explicitly disagreed with the assertion that 'the NRC's EIS for a combined license must attribute to the NRC's Federal action all of the environmental impacts of constructing a nuclear facility, including the private, pre-construction activities that may be accomplished by the applicant without any NRC approval.'" NRC Staff Answer at 77. Consequently, the NRC Staff argues, the NRC is under no duty to discuss and analyze all reasonable transmission line routes because such corridors are exempt from the definition of "construction" under NRC

regulations and are thus not considered to be part of the "major Federal action" that is approved by the Commission if a combined license is issued. NRC Staff Answer at 78. Therefore, the NRC Staff concludes that alternatives to the proposed construction of transmission lines are not alternatives to the proposed action before the agency, and thus the requirement to discuss alternatives to the proposed action does not extend to transmission line routes. NRC Staff Answer at 78.

NRC Staff's conclusion that the NRC is not required to analyze alternative transmission line routes and the resulting impacts is erroneous for the reasons explained below.

1. The 2007 LWA Rule Does Not Exempt Transmission Line Routes from NEPA's Alternatives and Impacts Analyses

Contrary to the NRC Staff's suggestions, the LWA Rule does not exempt transmission line routes from the alternatives and impacts analyses under NEPA. NRC Staff contends that in responding to public comments, the NRC stated that the EIS for a COL does not have to attribute to the NRC's Federal action all of the environmental impacts of constructing a nuclear power facility (including private, preconstruction activities). NRC Staff Answer at 76-78. Responses to public comments, however, are not part of the agency's rule, but are instead supplementary information accompanying the rule and do not carry the force and effect of law. *See* 72 Fed. Reg. 57,416; *United States v. Pasquariello*, 1994 U.S. Dist. LEXIS 20924, at *30 (S.D. Fla. April 19, 1994) (finding that preamble language in Clean Water Act implementing regulations "does not have the force of law") (citing *Jurgensen v. Fairfax Cnty., Virginia*, 745 F.2d 868, 885 (4th Cir. 1984) ("The . . . operative parts of a statute cannot be controlled by language in the preamble.") (quoting *Assoc. of Am. R.R.s v. Costle*, 562 F.2d 1310, 1316 (D.C. Cir.

1977))). Thus, Staff's position that the 2007 NRC LWA rule exempts transmission lines from the alternatives and impacts analysis is erroneous. Contrary to Staff's suggestions in footnote 33 of its Response, NUREG-1555 remains in effect and requires an analysis of the alternative transmission routes and their impacts.

Moreover, even if this supplementary information is considered not to be a rule but rather a statement of the NRC's position on this issue, staff's interpretation must be rejected for the reasons discussed below. It is respectfully submitted that such an interpretation would be given no deference by a reviewing court. An agency receives deference in interpreting a statute only when Congress specifically delegates to that agency the primary authority to administer the statute. *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837, 844-45 (1984). "Courts are instructed to give deference to agency constructions of those statutes which the agencies themselves are charged with administrating." *Parola v. Weinberger*, 848 F.2d 956, 959 (9th Cir 1987) (citing *Chevron*, 467 U.S. at 844-45); *see also Trs. for Alaska v. Hodel*, 806 F.2d 1378, 1384 n.10 (9th Cir. 1986) (agencies are due no deference in interpreting statutes regulating them); *West v. Bowen,* 879 F.2d 1122, 1137 (3d Cir. 1989) ("[n]o deference is owed an agency's interpretation of another agency's statute.") (internal citations omitted). In particular, no deference is accorded to agencies in interpreting their duties under NEPA. *Park Cnty. Res. Council. v. U.S. Dep't of Agric.*, 817 F.2d 609, 620 (9th Cir. 1987) ("[d]eference is inapplicable in the NEPA context, [because] NEPA imposes duties on agencies; agencies do not exist to administer NEPA."); *Grand Canyon Trust v. FAA,* 290 F.3d 339, 341-42 (D.C. Cir. 2002) ("the court owes no deference" to an agency's interpretation of NEPA or another agency's regulations because NEPA was addressed to

all federal agencies and not to one agency alone). The NRC does not have delegated authority to administer NEPA and thus receives no deference in interpreting this law or its implementing regulations. CEQ is charged with ensuring that federal agencies meet their obligations under the Act and NRC's actions must be consistent with the Act.

In a recent case finding that a federal permitting agency, the U.S. Army Corps of Engineers, improperly interpreted the Endangered Species Act's ("ESA") definition of "agency action" and failed to consult with the U.S. Fish & Wildlife Service ("FWS"), the court stated that "Congress has entrusted administration of the ESA to the [FWS], *see* 16 U.S.C. §1532(15), not to the Corps, so while FWS's interpretation of the ESA and its regulations may be entitled to deference, the Corps' interpretations are not." *Nat'l Wildlife Fed'n v. Brownlee*, 402 F. Supp. 2d 1, 11 (D.D.C. 2005). *Brownlee* further noted that the permitting agency's position regarding whether its action was an "agency action" under the ESA is a "legal question," and "not a factual question," and thus the permitting agency deserves no deference in its interpretation of the ESA and its implementing regulations. Id.

Thus, a reviewing court would owe no deference to the NRC's interpretation of whether NEPA's alternatives and impacts analyses would or would not apply to transmission line routes based on NRC's reading of what constitutes a "major Federal action" under NEPA (42 U.S.C. § 4332(2)(C)).

2. The 2007 LWA Rule Does Not By Implication Exempt Transmission Line Routes from NEPA's Alternatives and Impacts Analyses

Despite the fact that, as explained above, the LWA rule does not exempt transmission line routes from NEPA's alternatives and impacts analyses, NRC Staff argues that because the rule exempts the construction of transmission lines from the

definition of "construction" under the AEA, transmission lines are considered private actions for which the NRC has no statutory basis for regulation, and because they are not part of the "major Federal action" of issuing a COL, the LWA rule exempts the construction of transmission lines from the alternatives and impacts analyses under NEPA. NRC Staff Answer at 77.

NRC Staff, however, cannot rely on the LWA rule to excuse the Commission from having to comply with NEPA. First, the range of alternatives that an agency must consider in its EIS is dictated by the nature and scope of the proposed action: One that is defined not by the LWA rule but rather by the applicant in its ER. Second, under CEQ regulations, related proposals must be considered under a single environmental impact statement. Third, certain non-federal actions, including the allegedly private action of constructing transmission lines,[7] are considered to be "major Federal actions" under NEPA. Lastly, in light of the fact that the U.S. Army Corps of Engineers and potentially other federal agencies will likely "tier" to the NRC EIS, it would be improper to exclude transmission line routes from the alternatives and impacts analysis under NEPA.

a. The Range of Reasonable Alternatives That An Agency Must Consider In Its EIS Is Dictated By the Nature and Scope of the Proposed Action

The range of reasonable alternatives that an agency must consider in its EIS is dictated by the nature and scope of the proposed action. *Ak. Wilderness Recreation & Tourism Ass'n v. Morrison*, 67 F.3d 723, 729 (9th Cir. 1995)*; see also Carmel-by-the-Sea* 123 F.3d at 1155. Agencies must "exercise a degree of skepticism in dealing with self

[7] NRC Staff's reference to the construction of transmission lines as a "private" action is a misnomer. Although NRC Staff may not consider the construction of transmission lines to be part of the "major Federal action" of issuing a COL, a position Petitioners strenuously object to, the construction of transmission lines will likely be considered a federal action within the context of the Clean Water Act (as it will require a Section 404 permit from the Corps of Engineers) and Endangered Species Act (the Corps' issuance of a 404 permit will trigger the need for formal consultation under Section 7).

serving statements from a prime beneficiary of the project and to look at the general goal of the project rather than only those alternatives by which a particular applicant can reach its own specific goals." *Envtl. Law & Policy Ctr vs. NRC*, 470 F.3d 676, 683 (7th Cir. 2006) (quoting *Simmons v. U.S. Army Corp of Eng'rs*, 120 F.3d 664, 666 (7th Cir. 1997)). When the purpose and need of a project are overly narrow, the resulting range of alternatives is inadequate under NEPA. *See* id. at 684 (citing *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 199 (D.C. Cir. 1991)). An agency cannot define the purpose of a project in such a way as to foreclose the ability of any alternatives to meet the stated purpose. *See Simmons*, 120 F.3d at 669.

In this case, FPL recognizes the general goal of the project as one of generation *and transmission* of power. *See generally* ER 1.1.1, 1.1.2.1, 1.1.2.5. In fact, it does not dispute the fact that transmission line routes are subject to the alternatives and impacts analysis under NEPA. FPL Answer at 110. This is also evidenced by Chapter 1 of FPL's ER. As required by NEPA, ER Section 1.1.1 starts with the "purpose and need" statement for the project, which states that the purpose is *to provide* additional baseload generation . . ." (emphasis added). Section 1.1.2.1 contains the project description, which states that "the new units would be operated as baseload plants *to supply* the needs of the FPL service territory." (emphasis added). Section 1.1.2.5 specifically references the construction of transmission lines as a significant component of the project, explaining that "two new 500kV circuits and three new 230kV circuits would be built *to connect* Units 6 & 7 to the electric grid." (emphasis added). Thus, FPL's stated goals for the project include both the generation and distribution/transmission of additional power into the FPL service territory. It is thus nonsensical for NRC staff to narrow the scope of the

project and argue that despite these goals of generation and transmission that the action does not include the construction of transmission lines—the essential mechanism for transmitting power from Units 6 & 7 to the FPL service territory. NRC staff's position cannot stand in view of FPL's stated purpose, need, and goals for this project and the EIS must include an alternatives and impacts analysis of the transmission line routes.

b. Related, Dependent Proposals Are Evaluated in a Single Environmental Impact Statement

The CEQ regulations provide that proposals or parts of proposals that are "related to each other closely enough to be, in effect, a single course of action" must be evaluated in a single EIS. 40 C.F.R. § 1502.4(a).

Furthermore, courts have consistently interpreted NEPA to require that, where the private and public portions of a project cannot exist independently of each other, the impacts of the private portions must be disclosed and evaluated in the NEPA environmental analysis. *See, e.g.*, *Mid States Coal. for Progress v. Surface Transp. Bd.,* 345 F.3d 520 (8th Cir. 2003) (EIS for a new coal-carrying rail line violated NEPA by failing to consider emissions from increased coal consumption resulting from new rail line); *Port of Astoria, Or. v. Hodel*, 595 F.2d 467, 480 (9th Cir. 1979) (agency's EIS had to consider the supply of federal power and the construction of a private magnesium plant that used the power); *Sierra Club v. Hodel*, 544 F.2d 1036, 1044 (9th Cir. 1976) (where a federal agency agreed to construct a transmission line and supply power to a private power project, the entire project was deemed major federal action requiring an EIS); *Colo. River Indian Tribes v. Marsh*, 605 F. Supp. 1425, 1433 (C.D. Cal. 1985) (agency had to prepare an EIS that considered both the federal action of stabilizing a river bank and the private housing built as a result); *Natural Resources Def. Council v. Hodel*, 435

F. Supp. 590 (D. Or. 1977) (private power plants subject to NEPA because "without federal peaking power and transmission systems and the services performed by [the federal agency], construction of these plants would be inconceivable in the absence of very substantial change").

For example, in *Border Power,* the court found that a NEPA environmental analysis for the construction of a transmission line across federal lands to carry power from a Mexican power plant to the U.S. grid had to consider the emissions and other environmental impacts of the Mexican power plant—even though the relevant federal agencies had no jurisdiction over the Mexican power plant. 260 F.Supp. 2d at 1014-17. The relevant test is "whether 'each [action] could exist without the other.'" Id. at 1014 (quoting *Sylvester v. U.S. Army Corps of Eng'rs*, 884 F.2d 394, 400 (9th Cir. 1989)). The question in that instance was then "whether the transmission lines and the power plants at issue would exist in the absence of the other." Id.

Clearly, the construction of transmission lines to provide power from Turkey Point Units 6 & 7 is a proposal that is closely related to the construction of Units 6 & 7 and could not exist without the construction of Units 6 & 7. There is no other purpose for the construction of these transmission lines and routes, and as such the construction of Units 6 & 7 and the transmission lines are so dependent upon one another that they are a single course of action subject to NEPA. Accordingly, the transmission line routes must be analyzed for their alternatives and impacts under NEPA.

3. Certain Non-Federal Actions, Including the Construction of Transmission Lines In this Case, Are Considered "Major Federal Actions" for Purposes of NEPA

Even if NRC Staff is correct in asserting that the construction of transmission lines is a "private action" that is not part of the issuance of a COL, this does not mean

that this action is exempt from consideration under NRC's EIS. Staff Answer at 77. "Major Federal actions" include "actions with effects that may be major and which are potentially subject to Federal control and responsibility." 40 C.F.R. § 1508.18. These actions may be "assisted, conducted, regulated, or approved by federal agencies." Id. Moreover, a project may become a "major federal action by virtue of the *aggregate* of federal involvement from numerous federal agencies, even if one agency's role in the project may not be sufficient to create major federal action in and of itself." *Sw. Williamson Cnty. Cmty. Ass'n, Inc. v. Slater*, 243 F.3d 270, 279 (6th Cir. 2001) (citing 40 C.F.R. §§ 1508.25; 1508.27(b) (noting that "more than one agency may make decisions about partial aspects of a major [Federal] action")); *Maryland Conservation Council, Inc. v. Gilchrist*, 808 F.2d 1039, 1042 (4th Cir. 1986) (holding that "because of the inevitability of the need for at least one federal [agency] approval, the construction of the [state] highway will constitute a major federal action.")) (emphasis added).

The Court in *Slater* established a two part test to determine when a private, "non-federal project" is a "major Federal action": (1) when the non-federal project restricts or limits the statutorily prescribed federal decision-makers' choice of reasonable alternatives; or (2) when the federal decision-makers have authority to exercise sufficient control or responsibility over the non-federal project as to influence the outcome of the project. 243 F.3d at 281. If either test is satisfied, the action is a major federal action under NEPA. Id.

The construction of transmission lines is a major federal action under both standards. First, federal decision makers have authority to exercise sufficient control over the construction of transmission lines as to influence the outcome of the project.

Although NRC Staff may argue that because the construction of transmission lines are exempt from the definition of "construction" under NRC regulations and therefore fall outside the scope of the NRC's jurisdiction under the AEA, the construction of transmission lines will require a Section 404 permit under the CWA from the Corps (a permit FPL has already applied for). 33 U.S.C. § 1344. In addition, the issuance of this permit will require formal consultation, and likely the preparation of a Biological Opinion under Section 7 of the ESA by the FWS given its potential significant impacts to federally listed species. 16 U.S.C. § 1536. Thus, both the Corps and the FWS exercise sufficient control and authority over the construction of the transmission lines to federalize this component of the larger project. Secondly, the construction of transmission line corridors in either one of the two selected alternative routes restricts or limits the statutorily prescribed federal decision-makers' choice of reasonable alternatives. In all likelihood, pursuant to the interagency agreement, the Corps and other federal agencies will tier to this EIS as NRC is the lead NEPA agency for this project. *See* Memorandum of Understanding Related to Nuclear Power Plants (September 12, 2008). With only two selected alternative routes, this will force the Corps to make its permitting decision based on these two alternative routes.

Under the CWA, the Corps must perform its own alternatives analysis. 40 C.F.R. § 230.10(a). It is prohibited from issuing any permit "if there is a practicable alternative . . . which would have less adverse impact on the aquatic ecosystem." Id. (emphasis added). An alternative is considered "practicable" if it is "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." Id. § 230.10(a)(2). Practicable alternatives are presumed to be

available unless "clearly demonstrated otherwise." Id. § 230.10(a)(3). "If the permit applicant establishes that no less damaging, practicable alternative is available, the applicant must then show that all 'appropriate and practicable steps' will be taken to minimize adverse effects of the discharge on the wetlands. Id. § 230.10(d). Like any other federal agency taking action that could affect the human environment, the issuance of a 404 permit is typically a major federal action subject to NEPA. *See Fla. Wildlife Fed'n,* 401 F.Supp.2d 1298 (S.D. Fla. 2005). In this case, pursuant to a memorandum of understanding between the Corps and NRC, that NRC will be the lead agency responsible for preparing the EIS but the Corps will also participate in this process and possibly "tier" to this EIS for its own assessment of the project's impacts to wetlands. *See* Memorandum of Understanding Related to Nuclear Power Plants (September 12, 2008). As the CEQ further explains, "agencies must integrate the NEPA process into other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts." *See* CEQ Forty Most Asked Questions.

If NRC were to accept the NRC Staff's position that the transmission line routes are not subject to NEPA's alternative and impacts analysis, the Corps would be more or less forced to accept one of the two routes proposed by the applicant. This scenario would be something akin to what could have occurred in *Maryland Conservation Council v. Gilchrist*, had the court not intervened. In *Gilchrist*, the court determined that a county-funded highway was a major federal action because construction of the highway would likely require multiple federal agencies' approval before completion. 808 F.2d at 1042. The highway would have crossed state park lands (which were established by federal

funds) thus requiring the approval of the Interior Department to build the portion of the highway that traversed the park. Id. The county also would have needed a Section 404 permit from the Corps to dredge wetlands in the park where the highway would cross a creek. Id. at 1042. In addition, the county would have needed to obtain the approval of the Secretary of Transportation to secure federal funding for the project. Id. The Court found that "because of the inevitability of the need for at least one federal approval, we think that the construction of the highway will constitute a major federal action." Id. The Court was particularly concerned that the agencies would inevitably be influenced if the County were allowed to proceed before the issuance of an EIS. Id. Had the Court not remanded the case for consideration of an injunction to halt construction, any completed segments of the project "would stand like gun barrels pointing into the heartland of the park." Id. This more or less would have forced the agencies to accept the project as the County had intended.

Though FPL has not begun constructing these transmission lines, NRC Staff's exclusion of transmission line routes from the alternatives and impacts analyses creates a similar predicament for agencies such as the Corps. By doing so, the Corps would be unable to perform a complete review of all reasonable alternatives to the construction of transmission lines through hundreds of acres of wetlands. The agency would have little choice but to approve FPL's selected route, thus eviscerating its obligations under NEPA and the CWA to demonstrate that no practicable alternatives exist. 40 C.F.R. § 230.10(a). To avoid this from occurring, and to insure that all decisionmakers are able to consider and disclose the environmental impacts of the proposal *before* a decision is made, it is imperative that FPL comply with the mandates of NEPA *now* and analyze all reasonable

transmission line route alternatives and the respective impacts of those alternatives.

REPLY TO FPL ANSWER

While FPL concedes that the NRC has determined that alternative transmission corridor routes should be considered during its NEPA review, FPL Answer at 110, it argues that Joint Petitioners are being unreasonable because they are asking for more or less a discussion of "all conceivable alternatives," that it has already complied with this requirement by conducting its own selection process, and that Joint Petitioners have not alleged the existence of alternatives which were not considered by FPL whose environmental impacts should be evaluated. Contrary to FPL's assertion, Contention NEPA 5 explains why the ER's failure to consider all reasonable alternatives is material to NRC findings, provides sufficient facts that support this position, and offers sufficient information to establish that the ER does not comply with NEPA requirements. 10 C.F.R. § 2.309(f)(1)(iv)-(vi). Joint Petitioners thus satisfy NRC requirements for submitting admissible contentions, and Contention NEPA 5 is admissible.

First, FPL mischaracterizes Joint Petitioners' contention that it is arguing for the discussion of any and all alternatives, no matter how far-fetched, speculative or impractical. Petitioners repeatedly argue that FPL needs to discuss and analyze "all reasonable alternatives." *See* Petition at 9, 38, 39, 41, 45-47. FPL is attempting to avoid having to discuss such reasonable alternatives by arguing that any and all alternatives or impacts it fails to mention must be speculative or impractical. Courts have dismissed such tactics as impermissible under NEPA. *See Scientists' Inst. for Pub. Info. v. Atomic Energy Comm'n*, 481 F.2d 1079, 1092 (D.C. Cir. 1973) ("Reasonable forecasting… is…implicit in NEPA, and we must reject any attempt by agencies to shirk their

responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry.'").

Second, and simply put, it is the applicant and the agency's job to identify and discuss reasonable alternatives to the action, not the party challenging the adequacy of the agency's EIS. *See* 10 C.F.R. § 51.45(b)(3) ("The discussion of alternatives shall be sufficiently complete to aid the Commission in developing and exploring . . . 'appropriate alternatives to recommended courses of action . . . ."); *see, e.g.*, *In Re Detroit Edison Co.*, 70 N.R.C. 227, 262 (2009) ("The [NRC] evidently intended to ensure that the ER would provide the essential information the agency requires to fulfill its NEPA obligations."). Moreover, FPL admits that it "identified several alternative route segments using predetermined route selection guidelines" and that this effort "produced 99 and 134 potential alternative route alignments between the Clear Sky substation and the pre-existing substations to which it would connect." FPL Answer at 113. Thus, by FPL's own admission, there are many more than just two possible alternative route alignments that could be considered by the NRC in the EIS. *See generally Muckleshoot Indian Tribe*, 177 F.3d at 813 (requiring agency, under NEPA, to consider a full range of reasonable alternatives to its proposed action); *see also Envtl. Information Ctr. v. U.S. Forest Serv.*, 234 Fed. App'x 440, 443 (9th Cir. 2007) ("A cursory dismissal of a proposed alternative, unsupported by agency analysis, does not help an agency satisfy its NEPA duty to consider a reasonable range of alternatives.").

Lastly, FPL cannot evade NEPA by arguing that its reliance on its own selection process to narrow the number of alternatives to just two possible routes should be afforded "great weight" by the NRC, as such tactics run afoul of *Calvert Cliffs' v. U.S.*

Atomic Energy Commission, 449 F.2d 1109 (D.D.C. 1971) and the other cases discussed in the Petition (that neither NRC staff nor FPL discuss in their Answers), which hold that FPL and in turn NRC cannot rely on state processes to excuse its non-compliance with NEPA. *See e.g. S. Fork Band Council of W. Shoshone v. U.S. DOI*, 588 F.3d 718, 726 (9th Cir. 2009) ("A non-NEPA document-let alone one prepared and adopted by a state government-cannot satisfy a federal agency's obligations under NEPA.") (citing *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 998 (9th Cir. 2004)). In addition, "blindly adopting the applicant's goals is 'a losing proposition' because it does not allow for the full consideration of alternatives required by NEPA." *Simmons,* 120 F.3d at 666 (NEPA requires an agency to "exercise a degree of skepticism in dealing with self-serving statements from a prime beneficiary of the project").

In sum, FPL and NRC Staff's arguments are without merit and Petitioners' Contention NEPA 5 should be admitted because the ER failed to adequately address how it will avoid and/or minimize impacts to wetlands caused by the construction and operation of transmission line corridors and associated access roads. Further, the ER's perfunctory description of proposed mitigation measures fell short of the analysis required under NEPA. In addition, the ER failed to consider reasonable alternatives to the proposed transmission lines and accompanying access roads. NRC Staff's assertion that the ER need not consider alternatives is without merit. Not only is the ER required to consider all reasonable alternatives, by FPL's own account there are many possible alternatives that were not adequately taken into consideration in its ER. Joint Petitioners have met the requisite NRC standards under 10 C.F.R. § 2.309 and thus Contention NEPA 5 is admissible.

Contention NEPA 6: The ER fails to adequately address the cumulative impacts of constructing and operating Units 6 and 7 on salinity levels in groundwater, surface, Biscayne Aquifer, and Biscayne Bay; wetlands; and wildlife.

REPLY TO FPL AND NRC STAFF ANSWERS

Contention NEPA 6 asserts that the ER fails to provide the NRC with sufficient information to adequately assess the cumulative impacts of heightened salinity levels due to the construction and operation of Units 6 and 7. Both the FPL Answer and the Staff Answer challenge the factual basis for the Contention and claim that it fails to raise a genuine dispute regarding a material issue of law or fact. To the contrary, Joint Petitioners provide sufficient factual support for this contention and clearly demonstrate that the ER fails to provide sufficient analysis as required by NEPA. 10 C.F.R. § 2.309(f)(1)(iv)-(vi). Thus, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309, and therefore Contention NEPA 6 is admissible.

The ER will serve as the NRC's primary tool for drafting an EIS in compliance with NEPA. As such, FPL's ER is required to provide the NRC with "sufficient data to aid the Commission in its development of an independent analysis," of the environmental effects or impacts. 10 C.F.R. §51.45(c). 40 C.F.R. § 1508.8 defines effects or impacts broadly, to include "ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems) aesthetic, historic, cultural economic, social or health, whether direct, indirect, or *cumulative*." (emphasis added). The regulations specify that the "cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7. FPL concedes that the construction and operation of Units 6 and 7 may result in increased salinity in the groundwater and Biscayne Bay (ER 5.2-22 – 5.2-23); however,

the ER fails to adequately analyze for the combined effect of these increases and other proposed and existing activities affecting salinity. Petition at 47-48.

Contrary to the blanket claims made in both the FPL and NRC Staff Answers, the Petition does provide factual support for its demand for an adequate analysis of the cumulative impacts construction and operation of Unit 6 and 7 may have on the salinity and ecology of the Biscayne Bay and Biscayne Aquifer. FPL Answer at 118; NRC Staff Answer at 84-85. For example, the Petition plainly references the South Florida Water Management District, *Miami-Dade Canal Agricultural Drawdown Study,* Power Point Presentation to Governing Board (Petition at Exhibit 25) (the "SFWMD Power Point Presentation") and Kearns, E.J., et al., *Environmental impacts of the Annual Agricultural Drawdown in Southern Miami-Dade County, Everglades National Park and Biscayne National Park* (Petition at Exhibit 24) (the "Kearns Study") in support of Joint Petitioners' demand for additional analysis of the cumulative effects of the proposed units and the seasonal "fall agricultural draw downs." Both sources address the harmful environmental impacts of the existing draw-downs, including groundwater discharges and saltwater intrusion. The Kearns' Study reports that the draw-downs "[contribute] to loss of estuarine habitat & function via poor timing of freshwater input….. [remove] protection against saltwater intrusion into the Biscayne Aquifer in the region…[and] [l]oss of freshwater storage in the Biscayne Aquifer," and that the goal is to return to a "more natural ground water recession rate…[to] promote estuarine and wetland function…[and permit] estuarine species… become re-established in [South] Biscayne Bay." Petition at Exhibit 24. The ER states that the operation of the radial collector wells

may require additional draw-downs of the surface and ground water. ER at 5.10-4, 5.20-5. The cumulative effects of these draw-downs must be adequately assessed.

Joint Petitioners provide additional factual support for Contention NEPA 6 by referencing concerns raised by the Miami-Dade County's Restoration Planning Division. In presenting the findings from their internal agricultural draw-down study aimed at identifying "potential operational or structural improvements to lessen water losses and address other water resource needs throughout the basin," the County specifies "emerging issues" to be addressed, such as: "Increased evidence of regional salt water intrusion within the Biscayne Aquifer; Increased mining activity that could accelerate mixing of surface water and salt-intruded aquifers; Florida Power and Light expanded power facility at Turkey Point and affect on regional water resources; Proximity of wellfields to saltwater intrusion line and future wellfield sustainability," (SFWMD, *Miami-Dade Canal Agricultural Drawdown Study* (Petition at Exhibit 25)), all of which can be associated with FPL's expanding operations at Turkey Point. The NRC Staff claims this reference fails to provide adequate support for the contention because "only one of the discussion topics clearly mentions the Applicant." Staff Answer at 93. However, direct reference to FPL or Turkey Point is not needed because each of the emerging issues listed is a reasonably foreseeable result of FPL's expansion. Where the cumulative effects of these actions are raised as points of concern in independent documents, Joint Petitioners have adequately supported this contention. *See generally* 10 C.F.R. § 2.309(f)(v)(for a contention to be admissible, petitioners need only "provide *a concise statement* of the alleged facts or expert opinions which support the requestor's/petitioner's position.").

The Petition references these sources to substantiate its demand for a thorough analysis of the "how these yearly draw-downs, when added to the existing salt water plume…and proposed operations of Units 6 & 7 will cumulatively impact local [salinity] levels within the Biscayne Aquifer and Biscayne Bay." Petition at 50. FPL responds to this demand by stating that "*contrary to the [Joint] Petitioners' allegations*," the need for such analysis is satisfied because "these existing environmental conditions are incorporated into the baseline for the ER's cumulative impact analysis." FPL Answer at 123; *see* ER at 5.11-11. However, Chapter 5 of the ER, entitled *Environmental Impacts of Operation*, fails to identify these annual draw-downs as an "existing environmental condition" that has been accounted for, or as the subject of thorough cumulative analysis. Where the Petition demands a thorough analysis of the cumulative impacts of the FPL and annual agricultural draw-downs and the ER provides neither analysis nor "sufficient data to aid the Commission in its development of an independent analysis," as required by 10 C.F.R. §51.45(c), there is undoubtedly an issue of genuine dispute. Petition at 49-50.

Courts have found that "to 'consider' cumulative effects, some quantified or detailed information is required." *Neighbors of Cuddy Mountain,* 137 F.3d at 1379. In response to the Joint Petitioners' recognition of the lack of such data regarding the proposed, additional draw-downs, FPL provides a generic claim that the "impacts of operation of the new units were based on existing environmental conditions, so the operation impact analyses have already accounted for present actions." FPL Answer at 123, *see* ER at 5.11-11. No reference is made to the "quantified or detailed information" in the ER because no such information is made available. Rather, the ER expects one to

assume that this impact has been accounted for and that FPL has rightly concluded that the cumulative effects on salinity of the Bay "would be minimal." ER 5.2-21. As stated in the Petition, this is not sufficient. Petition at 49-50.

Desperate to claim that an adequate analysis of these cumulative effects has been conducted, the FPL Answer refers Joint Petitioners to the FSAR for a discussion of the impacts of the "practice of pumping groundwater during the dry season, when its impacts on water quality are highest." FPL Answer at 123. However, the Petition is directed to the inadequacies of the ER and analysis of environmental impacts. Discussion of such important environmental impacts should not be limited to the FSAR, but discussed and analyzed fully in ER, as required by NEPA. Petition at 52. Where adequate analysis of the potential, concurrent effects of FPL's expansion and the seasonal agricultural draw-downs is not provided in the ER, FPL has failed to provide "sufficient data to aid the Commission in its development of an independent analysis," of the cumulative effects and therefore fails to comply with the 10 C.F.R. §51.45(c).

Furthermore, the NRC Staff wrongly contends that the Petition fails to demonstrate a genuine dispute because the "Petition does not *explain how* these seasonal water management draw-downs would exacerbate (or even interact) with impacts from construction and operation of new units." Staff Answer at 92. This demand is a gross exaggeration of the requirements placed on the Joint Petitioners. Joint Petitioners are not required to specify what impacts will occur and how they will harm the Biscayne Bay or Aquifer. As previously mentioned throughout this Reply, the court in *Te-Moak Tribe* explained that, "[s]uch a requirement would 'thwart' one of the 'twin aims' of NEPA-to 'ensure[] that the *agency* will inform the public that it has indeed considered

environmental concerns in its decisionmaking process." 608 F.3d at 605 (emphasis in original). Joint Petitioners only need to show the potential for impacts. Id. This is what Joint Petitioners have done by asserting this contention and referencing local government and independent sources raising the same issue. *See* SFWMD Power Point Presentation (Exhibit 25) and Kearns Study (Exhibit 24). Where the ER lacks analysis of this issue, further analysis to determine "[w]hether or not the contention is true is left to litigation on the merits in the licensing proceeding." *Washington Public Power Supply System,* 17 N.R.C. at 551 n.5 (citing *Houston Lighting and Power Co*., 11 NRC 542).[8]

The FPL and Staff Answers make similar missteps in contending that the "Petition fails to identify a genuine dispute with the Applicant" regarding the cumulative effect of salinity levels on local vegetation and terrestrial species. *See e.g.* NRC Staff Answer at 83. The Petition clearly states that "the potentially dramatic increase in salinity levels in and around the plant following the construction and operation of Units 6 & 7 could have profound impacts to the native ecosystem and the wildlife found therein," and that these "impacts need to be discussed and analyzed." Petition at 51-52. Joint Petitioner's assertion stands in contrast to the ER's unsupported conclusion that "any impacts from salt drift on local terrestrial ecosystems would be SMALL and would not warrant mitigation beyond the crocodile management program," ER at 5.3-9.

[8] Furthermore, as previously explained throughout this Reply, the NRC rules for pleading contentions do not require a petitioner "to prove its case at the contention stage, and [a petitioner] need not proffer facts in formal affidavit or evidentiary form sufficient to withstand a summary disposition motion." *Crow Butte Resources* (License Amendment for the North Trend Expansion Project), 67 N.R.C. 241, 292 (N.R.C. Apr. 29, 2008) (internal quotations and citations omitted). Rather, the Joint Petitioners "must make a minimal showing that material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate." *Id.* The Staff Answer attempts to ignore these technical requirements and instead contest the merits of Contention 6, demonstrating that a genuine dispute of law or fact does exist.

Despite FPL's overarching attempt to minimize the impact of increased salinity, FPL admits that "[s]ignificant salt deposition is predicted at the makeup water reservoir," would occur in decreased amounts beyond the reservoir, and "would generally [but not completely] be confined to the plant property." ER at 5.3-8 – 5.3-8. FPL further concedes that the salt deposition, which will likely result in heightened salinity levels in the cooling canals, "could adversely impact young crocodiles" and would require continued mitigation. Id. Where FPL has an existing crocodile mitigation program to track crocodile hatchlings and manage crocodile habitats, the ER provides an analysis of the potential effects and the proposed mitigation efforts. Id. However, comparable analysis of the impacts on other plant and animal species is lacking. As the Staff Answer notes (Staff Answer at 83), the ER categorically concludes that "[s]alt deposits would not impact canal salinities sufficiently to eliminate or reduce fish populations and, therefore, would not impact waterbird use …[and that] the potential impacts of salt drift on vegetation would be SMALL and not warrant mitigation." ER 5.3-9. Joint Petitioners find no comfort in FPL's unsupported conclusions. Although these species are not yet protected, Joint Petitioners assert that they should not be overlooked. Where the ER fails to provide adequate analysis, or data to permit the Commission to conduct an independent analysis (as required by 10 C.F.R. §51.45(c)) regarding the cumulative impacts on these overlooked species, the Joint Petitioners raise a genuine dispute and this contention should be admitted.

Contention NEPA 7: The ER fails to address the direct, indirect, and cumulative impacts of sea level rise on the construction and operation of Units 6 & 7 and the ancillary facilities.

Contrary to FPL's and the NRC Staff's assertion, Contention NEPA 7 explains why sea level rise is material to the NRC findings, provides sufficient facts that support this position, and offers sufficient information to establish that the ER does not comply with NEPA requirements. 10 C.F.R. § 2.309(f)(1)(iv)-(vi). Thus, Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309, and therefore Contention NEPA 7 is admissible.

In satisfaction of 10 C.F.R. § 2.309, and as discussed below, Contention NEPA 7 demonstrates that the ER fails to adequately account for the environmental impacts of sea level rise on Units 6 and 7 and the ancillary facilities. In their Answers refuting this assertion, FPL and the NRC Staff neglect to recognize that Contention NEPA 7 focuses on environmental impacts discussed in the ER, not the safety impacts discussed in the Final Safety Analysis Report (the "FSAR"). Further, the supplemental guidance relied upon by FPL in arguing that seal level rise need not be discussed in the ER, actually supports the opposite proposition – the ER must provide an adequate analysis of how sea level rise impacts the surrounding environmental resources. *See* Supplemental Guidance.

REPLY TO FPL AND NRC STAFF ANSWERS

The Petition contends that the ER fails to address the direct, indirect, and cumulative impacts of sea level rise on Units 6 and 7 and ancillary facilities, including transmission lines, reclaimed water pipelines, wastewater facilities, access roads, and other facilities. Petition at 52. Specifically, Joint Petitioners argue that because the Biscayne Aquifer is extremely porous, an increase in sea level rise is likely to raise the general groundwater levels in the region; however, there is no discussion in the ER of the impacts of these changes and the resulting saltwater intrusion. Id. at 53. NEPA demands that the effects on the environment of increased groundwater levels and resulting

groundwater intrusion, when coupled with the effects of the construction and operation of Units 6 and 7 and associated facilities, be addressed in the ER. *See* 10 C.F.R. §51.45.

Although the ER fails to address these issues, FPL argues that it is adequate nonetheless because a 3.7 foot max wave pump has been incorporated in the plant design. FPL Answer at 130-31. Thus, FPL contends Contention NEPA 7 fails to demonstrate that its "storm surge concern raises a genuine dispute with the Application." Id. at 131. FPL's argument is unpersuasive for several reasons. First, the issues raised in Contention NEPA 7 are not limited to "storm surge," but rather – as explained earlier – include the environmental impacts associated with changes in groundwater levels and saltwater intrusion. Thus, whether the plant itself is elevated does not resolve the issue of how increased groundwater levels and increased saltwater in the area could, when combined with FPL's operations as a whole, effect the local environment. Second, the 3.7 foot max wave pump figure, consistent with FPL's own admission, only factors in a 1 foot increase in sea level rise over the next century. Id. at 130. Joint Petitioners assert that the ER must consider a 1.5 – 5 foot increase in sea level rise. Petition at 52. Third, and also by FPL's own admission, FPL has only incorporated the 3.7 foot max wave pump figure into the plant itself, specifically the elevations of floor entrances and openings for all power block structures. FPL Answer at 131. FPL does not dispute Joint Petitioners' contention that the ER fails to incorporate considerations of sea level rise into the design of *all* plant components and facilities (including those located outside of the plant site) including transmission lines, pipelines, wastewater facilities, and access roads. Id.

FPL's failure to explain how these other facilities will be constructed and operated in the face of a 1.5 – 5 foot increase in sea level rise is significant, given the

range of environmental effects that could result from siting these facilities in an area that may be underwater (including the potential that these structures, if subjected to continuous exposure to salt water, could deteriorate or otherwise experience operational issues that could in turn, negatively impact the environment or discharge pollutants directly into the sea). Therefore, a genuine dispute exists between FPL and Joint Petitioners regarding the adequacy of the ER's discussion and analysis of sea level rise.

FPL and the NRC Staff further argue that the FSAR adequately accounts for sea level rise. *See* FPL Answer at 130-31. Specifically, FPL argues that "because FPL has demonstrated the safety of the proposed facility in its FSAR, a NEPA analysis of the effects of sea level rise on the facility cannot be material to the NRC's licensing findings." Id. at 131. However, the FSAR's *safety* analysis of sea level rise is irrelevant. NEPA requires the Applicant to address *environmental* impacts in the ER. 10 C.F.R. § 51.45. For instance, and as discussed earlier in this Reply, the Petition contends that the ER fails to discuss impacts relating to a rise in local groundwater levels and saltwater intrusion. Petition at 53.

The Commission recently published supplemental guidance addressing "greenhouse gas (GHG) emissions and treatment of climate change in the review of applications for new reactors and developing the staff's environmental impact statement (EIS)." Supplemental Guidance at cover page. The Commission's staff explains in the Supplemental Guidance, that "[u]ntil final updates are made to NRC's ESRP, this supplemental guidance provides the regulatory framework to address GHG emissions and the effects of climate change." Id. at 3; *see also* Affidavit of Harold R. Wanless (the

"Wanless Affidavit") at paragraphs15-16 (Exhibit 5). This guidance sets out the NEPA requirements of the environmental impacts analysis for new reactors:

> For new reactor licensing actions where an EIS is being prepared to fulfill its responsibilities under NEPA, the NRC Staff should consider certain aspects of climate change. These aspects include (1) the potential impacts of the proposed action on the environment and **(2) the changes in significant resource areas that may occur during the lifetime of the proposed action as a result of a changing climate.** In addition to the direct effects of the action, the Staff considers the indirect and cumulative effects of the proposed action and alternatives (sites an energy sources) to the proposed action. **The Staff should now consider changes in climate that may occur during the period of the proposed action on susceptible environmental resources; the Staff should consider air and water resources, ecological resources, and human health issues as the areas to consider the effects of climate change for new reactor applications.**

Id. at 10 (emphasis added). The Supplemental Guidance specifically states that the NEPA analysis, as it relates to climate change, should consider, "changes in significant resource areas that *may* occur during the lifetime of the proposed action as a result of a changing climate," and "changes in climate that *may* occur during the period of the proposed action on susceptible environmental resources." Id.; *see generally* Wanless Affidavit at paragraph 21. The ER fails to account for either of these considerations as they relate to climate-change-induced sea level rise. *See* Wanless Affidavit at paragraph 22. In fact, the Supplemental Guidance stands in direct opposition to FPL's misguided attempt to circumvent the requirements of a sea level rise analysis within the ER. FPL Answer at 131-32.

Specifically, Units 6 and 7 will rely on both "land" and "water" as significant resources areas. The "land" will provide the foundation for the elevated and non-elevated infrastructure and the access to the plant complex itself. Further, the "land" upon which Turkey Point is built is a "susceptible environmental resource" that will change

drastically over the life of Units 6 and 7 as result of climate-change-driven sea level rise. Wanless Affidavit at paragraph 25. Both Dr. Wanless and the U.S. Global Climate Change Research Program ("USGCRP") recognize that there is strong evidence that global sea level is currently rising at an increased rate. Wanless Affidavit at paragraph 24; USGCRP Report (Exhibit 5.9) at 37. Specific to Miami, Dr. Wanless and the USGCRP Report acknowledge that:

> In addition, coastal cities are also vulnerable to sea-level rise, storm surge, and increased hurricane intensity. Cities such as New Orleans, **Miami**, and New York are particularly at risk, and would have difficulty coping with the sea-level rise projected by the end of the century under a higher emissions scenario.

Wanless Affidavit at paragraph 17; USGCRP Report (Exhibit 5.9) at 102. Dr. Wanless further estimates that the land surrounding Turkey Point will become part of the combined Florida Bay/Biscayne Bay as a result of climate change during the "lifetime" of Units 6 and 7. Wanless Affidavit at paragraph 24-25. Thus, because "land" qualifies as both a "significant resource area" and a "susceptible environmental resource" the environmental effects of sea level rise must be included as part of the environmental analysis required by 10 C.F.R. § 51.45(b).

In addition, the Supplemental Guidance expressly acknowledges that the NEPA analysis for new reactors should consider changes to air and "water resources" as a result of climate change. Supplemental Guidance at 10. As pointed out in the Petition, the salinity of the water at Turkey Point will change as a result of climate change. Petition at 53; Wanless Affidavit at paragraph 24. This change will impact the operations of Units 6 and 7, which in turn could impact the environment. Petition at 53; Wanless Affidavit at paragraph 25. Additional changes to the operation of the plant's cooling canals and reclaimed water system may also occur. Wanless Affidavit at paragraph 25. Thus, the

effects of sea level rise on the Turkey Point's "water resources" must be analyzed under 10 C.F.R. § 51.45(b).

The purpose of an applicant's ER is to inform the NRC's preparation of an EIS. *Curators of the Univ. of Mo.*, CLI-95-8, 41 N.R.C. 386, 396 (1995). In light of the Supplemental Guidance, and the requirements of 10 C.F.R. § 51.45(b), the ER's failure to account for the impacts of sea level rise violates NEPA, NRC regulations, and NRC guidance and the ER fails to inform the NRC of any potential environmental impacts due to sea level rise.

FPL further argues that Contention NEPA 7 fails to demonstrate that sea level rise is a material issue because the analysis of sea level rise is not required by NEPA, NRC regulations or NRC guidance. FPL Answer at 132. Much in the same way as it argues that the NRC need not consider impacts relating to Everglades restoration, *see* id. at 62, FPL argues that NEPA requires applicants to discuss the impact of the proposed action on the environment and because sea level rise is an environmental issue, FPL is not required to consider the impact of sea level rise on the proposed action.

As with FPL's argument that FPL need not consider CERP issues in its ER, this argument fails as well. Contention NEPA 7 argues that FPL must consider the direct, indirect and cumulative environmental impacts resulting from the construction and operation of Units 6 and 7 in an area subject to a 1.5-5 foot increase in sea level rise. As Joint Petitioners' contend, the ER must address the environmental impacts resulting from a rise in groundwater levels and saltwater intrusion in an area that will be the site of two new nuclear reactors and associated facilities. It is these impacts that must be addressed

by FPL in its ER as required by NEPA. *See generally* Wanless Affidavit at paragraph 13-14.

FPL and NRC Staff go on to argue that Contention NEPA 7 lacks factual or expert support because Joint Petitioners cite to the South Florida Water Management District's Completeness Comments ("SFWMD Comments"). Id. at 133; NRC Staff Answer at 98-100. FPL argues that the SFWMD Comments do not qualify as an expert opinion and only report prediction of one task force. FPL Answer at 133.

The "SFWMD Comments cite to the Miami-Dade Climate Change Advisory Task Force's predictions regarding sea level rise. *See* Petition at Exhibit 11. These predictions were based on the research of Dr. Wanless, Chair of the Scientific Committee for the Miami-Dade Climate Change Advisory Task Force ("CCATF"); Wanless Affidavit at paragraph 5-6. Dr. Wanless' peer-reviewed science has been cited to, relied upon, and acknowledged at every level of government, including Miami-Dade County (local), the South Florida Water Management District (state), and the U.S. Army Corps of Engineers (federal). Wanless Affidavit at paragraphs 7-10.

Therefore, while the SFWMD Comments may not be an expert opinion, the sea level predictions discussed therein are and provide sufficient support for Joint Petitioners' contention that FPL must consider the impacts stemming from a 1.5 ft-5 ft. increase in sea level rise. To the extent that FPL attempts to discredit those predictions and Mr. Wanless' research, such tactics are impermissible. *See Cleveland Elec. Illuminating Co.,* LBP-82-98, 16 N.R.C. 1459, 1466 (1982) (stating that the basis for a contention may not be undercut, and the contention thereby excluded, through an attack on the credibility of the expert who provided the basis for the contention).

Further, FPL's attempt to discredit the findings of the SFWMD Comments (as they might apply to NRC review) misses the point of Joint Petitioners' use of these materials. *See* FPL Answer at 133. The SFWMD Comments were not submitted to suggest that the NRC and FPL are required to follow the science of the SFWMD. To the contrary, the SFWMD Comments were submitted to (1) demonstrate the strength of CCATF's findings regarding sea level rise, to (2) acknowledge that other governmental agencies were taking such scientific findings with the utmost seriousness in regard to the site of Units 6 and 7, and, most importantly, (3) highlight FPL's failure to acknowledge the environmental impacts of sea level rise in the ER as required by 10 C.F.R. § 10.45(b).

To the first point, the CCATF's findings are not only based on Dr. Wanless' findings but are also consistent with similar findings of the USGCRP Report regarding the environmental impacts of sea level rise. Wanless Affidavit at paragraph 23.

Second, agencies such as the U.S. Army Corps of Engineers (the "Corps") are taking such scientific findings with the utmost seriousness in their own decisionmaking, as evidenced by the Corps' recent guidance. *See* U.S. Army Corps of Engineers, Circular No. 1165-2-211; *see also* Wanless Affidavit at paragraphs 10-12. The Corps has relied on Dr. Wanless' research and the data on sea level rise reflected in the Corps guidance is consistent with the predictions made by Dr. Wanless and the CCATF. *See* id. The NRC may give considerable weight to action taken by another competent and responsible government authority in enforcing an environmental statute in conducting its NEPA analysis. *See Pub. Serv. Co. of Ok*, 8 N.R.C. 281, 282 (1978). Given that the Corps is likely going to tier to the NRC EIS for this project and will be considering sea level rise impacts consistent with its own recent guidance, it is important that the ER discusses

these impacts in a manner consistent with the predictions captured in the SFWMD, CCATF, and Corps documents.

Third, the predictions referenced in the SFWMD's Comments, which are based on Dr. Wanless' research, highlight FPL's failure to acknowledge the environmental impacts of sea level rise in the ER as required by 10 C.F.R. § 10.45(b). At best, FPL only considers a 1 ft increase in sea level rise and only with respect to storm surge impacts to Units 6 and 7.

Dr. Wanless' scientific research, as captured in the SFWMD Comments reveal:

> The Miami-Dade Climate Change Task Force has predicted that, by 2050, sea level rise could be between 1.5 to 5 feet. Id. With a COL valid for 40 years, Units 6 & 7 may still be in operation when these predictions become realities. *See* 10 C.F.R. § 52.140. Yet, the ER entirely fails to discuss and analyze the potential impacts of this 1.5 to 5 foot rise in sea level on Units 6 & 7.

Petition at Exhibit 11. As discussed earlier, FPL's failure to consider a 1.5 to 5 foot rise in sea level is significant given the environmental impacts which could result from constructing two new nuclear units in an area susceptible to such a dramatic rise in sea level, particularly the cumulative effects on local salinities as a result of sea level rise and plant operations, such as the use of radial wells. *See* Wanless Affidavit at paragraph 25; *see generally* Wanless Affidavit 18-20.

Lastly, to the extent the NRC Staff argues that Joint Petitioners have not proven the environmental significance of such impacts as storm surge or saltwater intrusion resulting from sea level rise, NRC Staff Answer at 101, the NRC Staff's arguments are without merit because as stated before, Joint Petitioners are under no duty to prove that these impacts will occur or demonstrate the level of their significance. That is a

determination left to the NEPA process and the agency. *See Te-Moak Tribe*, 608 F.3d at 605.

In conclusion, Contention NEPA 7 demonstrates that the ER is deficient because it fails to address direct, indirect, and cumulative impacts of sea level rise on Units 6 and 7 and the ancillary facilities. Contention NEPA 7 is both factually and scientifically supported so as to definitively meet the admissibility requirements of 10 C.F.R. § 2.309(1)(f)(vi) in highlighting FPL's failure to adequately assess sea level rise impacts in the ER. Therefore, Joint Petitioners' Contention NEPA 7 should be admitted.

Contention NEPA 8: FPL fails to adequately address the need for power in its ER. In particular, the ER fails to consider the drop in electricity demand in FPL's service area since 2008, and it relies on erroneous claims that state and regional evaluations satisfy NUREG-1555.

Contention NEPA 8 sets forth why the need for power assessment is material, provides sufficient facts to support this position, and offers sufficient information to establish that the ER does not comply with NEPA. 10 C.F.R. § 2.309 (f)(1)(iv)-(vi). While couching their attack on Contention NEPA 8 in terms of 10 C.F.R. § 2.309's magic words "materiality," "genuine dispute," and "basis," FPL and the NRC Staff actually make a thinly veiled attempt to shift the burden onto Joint Petitioners to sufficiently analyze electricity demand. *See* FPL Answer at 136; NRC Staff Answer at 105, 110. As has been repeatedly discussed in the Reply, such a burden is not one for the Joint Petitioners to bear. *See Te-Moak Tribe* 608 F.3d at 605; *City of Caramel-By-The Sea*, 123 F.3d at 1161; *City of Davis v. Coleman*, 521 F.2d at 671. Because the admissibility requirements of 10 C.F.R. § 2.309 have been satisfied, Contention NEPA 8 is admissible.

Contention NEPA 8.1: The ER contains inadequate and outdated information regarding the need for power.

REPLY TO FPL AND NRC STAFF ANSWERS

Contention NEPA 8.1 demonstrates that the ER does not comply with 10 C.F.R. § 51.45(b) because it fails to adequately address potential environmental impacts. *See* Petition at 54-58. Joint Petitioners provide sufficient information to show that FPL's ER failed to make a rigorous need-for-power analysis by grossly overestimating expected demand and failing to account for economic factors including population decline, the severity of the economic downturn, and sharp rise in consumer cost consciousness.

Though FPL contends that Joint Petitioners' arguments set forth in Contention NEPA 8.1 are immaterial to the finding that the NRC must make in this COL proceeding (*see, e.g.,* FPL Answer at 135), effectively assessing the need for power in the ER is fundamental to determining the benefit of the proposed action. *See* 10 C.F.R § 51.45(c). Even as FPL recognizes in its ER, "to accurately characterize the benefits associated with the proposed action, the NRC must assess the need for power." ER 8.1-1. Despite this recognition, the ER does not contain adequate analysis of the need for power. FPL attempts to turn this requirement for a needs assessment on its head, asserting that Joint Petitioners must conduct a cost-benefit analysis for the need for power. *See, e.g.,* FPL Answer at 136 ("Accordingly, for [Joint] Petitioners' challenge of "insufficient data and an outdated energy demand forecast" to be relevant in this COL proceeding, [*Joint*] *Petitioners must also make a showing* that the outcome of the FPL cost-benefit analysis would be different.") (emphasis added).

Likewise, NRC Staff contends that Joint Petitioners have failed to explain the materiality of their findings, and explain how a shift in peak demand for electricity

represents a shift in the need for the project. NRC Staff Answer at 104, 107. Yet, Joint Petitioners have raised a material issue regarding the need for the project based on a significant drop in demand that the project was originally intended to meet. Petition at 55-56. The need for the project is a fundamental underpinning of the ER. NRC Staff disputes Joint Petitioners' claim by relying on an outdated order granting FPL's need determination petition stating: "the most likely result will be the cancellation of some gas-fired combined cycle plants that have not yet been certified." NRC Staff at 107. The misplaced reliance on the order approving the FPL need determination is discussed in Joint Petitioners' Contention NEPA 8.2 Reply.

As has been repeated throughout this Reply, it is the duty of the agency (and the applicant) to satisfy NEPA's requirements. *See City of Davis v. Coleman*, 521 F.2d at 671 ("Compliance with [NEPA] is a primary duty of every federal agency; fulfillment of this vital responsibility should not depend on the vigilance and limited resources of environmental plaintiffs."); *City of Carmel-By-The Sea,* 123 F.3d at 1161 (explaining that government, not plaintiffs, has the burden of describing cumulative impacts). Joint Petitioners need only make a minimal showing that material facts are in dispute, thereby demonstrating that an in depth inquiry is appropriate. *Crow Butte Resources,* 67 N.R.C. at 292. Joint Petitioners have done just that.

In addition to wrongly disputing the materiality of the issue, FPL and the NRC Staff also misplace their arguments regarding factual support. FPL alleges that Contention NEPA 8.1 is based on the "unsupported and speculative 'presumption' … that there might not be a need for the units based on a lack of need for power." FPL Answer at 144. FPL, however, made that very same admission in its cost recovery petition. *See*

Petition at 58 and Exhibit 31. In that petition, FPL conceded that its decision to construct the plant will hinge, in part, on "economics" during the 2012 time frame. Petition at 58. Of course, a critical criterion in evaluating the "economics" of a nuclear reactor is the demand for power that is present to support the construction of the plant. A lack of demand can undermine the long term feasibility of the reactors. This played a critical role in the cancellation and abandonment of nuclear reactors in the 1970's and 1980's. *See* Petition at Exhibit 30, paragraph 7 (Cooper Declaration); Attachment 1 to Cooper Declaration at 11. Indeed, FPL has not disputed that power demand is one of the "factors" providing a clear path to construction. FPL Answer at 144. Joint Petitioners reassert that demand for power is a factor that FPL must consider in its decision to construct the reactors. This assertion is supported by FPL's own factual statements and thus satisfies the requirements of 10 C.F.R. 2.309.

FPL disputes the factual support presented by Joint Petitioners regarding FPL's demand forecast,[9] *See* FPL Answer at 145-46. The Joint Petitioners, however, cite to sources that directly contravene FPL and the NRC Staff's position: first, Joint Petitioners identify several local, Florida sources that illustrate significant negative impacts on Florida's real estate market and population trends from the national economic recession; and second, FPL's flawed electricity demand forecasts from the last two years diverged

[9] With regard to peak load, NRC Staff also asserts that "even if [Joint] Petitioners are correct that there will be a shift in the date of the forecasted 'peak demand,' the Petition fails to explain why this represents a dramatic shift in need for the proposed reactors." Staff Answer at 107. Joint Petitioners' reliance on peak load is based on the relationship of growth in peak load and base power load. As baseload power demands increase, generally peak demand will increase concurrently. In fact, FPL admits in its Answer that it is "peak load" that drives the timing and magnitude of FPL's resource needs. FPL Answer at 145. The ten year plans and the need determination docket make it clear that the reserve margin requirement is the key factor that triggers the addition of generation resources and the key reserve margin requirement is calculated at the peak.

from actual demand by over 10,000 GWh. Petition at 54 and 55. Any claim that Joint Petitioners' allegations were unsupported is accordingly disingenuous.

Beyond that, FPL asserts that Joint Petitioners' claim that actual "net energy load" has fallen short of forecasts also lacks support. Joint Petitioners relied upon data provided in FPL's Ten Year Site Plans. *See* Petition at Exhibit 28 and 29. Such a collection of evidence, at the very least, is sufficient at the contention filing stage. As has been repeated many times over, "the factual support necessary to show that a genuine dispute exists need not be in affidavit or formal evidentiary form and need not be of the quality necessary to withstand a summary disposition motion." *Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule,* 54 Fed. Reg. 33186, 33171 (Aug. 11, 1989).

FPL and the NRC Staff also assert that the delay of the proposed operation dates of Units 6 & 7 does not raise a material dispute of fact. FPL Answer at 144; Staff Answer at 106, 122. First, FPL fails to acknowledge that it has delayed the proposed operation dates of its reactors in the ER. *See* Petition at 56. FPL has once again failed to address or even acknowledge the delayed proposed operation dates of its reactors in its Answer. FPL Answer at 144-46. That alone represents a material dispute of fact. Furthermore, the in-service date delay places the resource need of the utility well outside the ten-year state planning cycle and significantly increases the probability that demand could be met from other sources, such as energy efficiency implementation or renewable energy technologies, or that the construction and operation of the plants could be canceled altogether for lower cost natural gas combined cycle units. This is based on improving technology and cost of efficiency, improving technology and cost of

renewables, and moderating natural gas prices that allow the need for the project to be supplanted with increased efficiency implementation, increased renewable energy generation, and natural gas combined cycle plants. *See* Petition at Exhibit 30, paragraph 7 (Cooper Declaration); Attachment 1 to Cooper Declaration at 38. Even if not directly tied to a decline in demand, the delayed in-service dates of the reactors further supports Joint Petitioners' assertion that FPL's data for its need-for-power analysis is outdated and inadequate. As such, there is a genuine and material dispute of fact as to whether the ER's analysis of need-for-power provides adequate and current information for the Commission to make an informed decision, satisfying 10 C.F.R. § 2.309(f)(v).

Thus, Contention NEPA 8.1 satisfies the requirements of 10 C.F.R. § 2.309(f). Joint Petitioners have set forth a genuine dispute of material fact and law, and have provided ample support for their assertions. Accordingly, Contention NEPA 8.1 is admissible.

Contention NEPA 8.2. State and regional evaluations of need for power fail to satisfy the requirements for NUREG-1555's exclusion of NRC independent review

REPLY TO FPL AND NRC STAFF ANSWERS

Contention NEPA 8.2 demonstrates that FPL's ER fails to adequately prove that Florida's planning processes satisfy NUREG-1555's requirements for exclusion of NRC independent review because the state process for evaluating the need for power is not (1) systematic, (2) comprehensive, (3) subject to confirmation, or (4) responsive to forecasting uncertainty. Contention NEPA 8.2 raises a genuine dispute of an issue material to the findings that the NRC must make in this proceeding. 10 C.F.R. § 2.309(f)(1)((vi). Joint Petitioners satisfy the requirements of 10 C.F.R. § 2.309, and therefore Contention NEPA 8.2 is admissible.

FPL and the NRC Staff argue that Joint Petitioners' Contention NEPA 8.2 does not demonstrate a genuine dispute simply because the Petition does not employ the magic words that compose NUREG-1555's four criteria. *See* FPL Answer at 152-53; NRC Staff Answer at 117. FPL and the NRC Staff make a weak attempt to address Joint Petitioners' argument on the deficiencies in the state process proffered in Contention NEPA 8.2. The Petition makes several significant arguments demonstrating that the state process does not satisfy the four NUREG-1555 criteria because it is disjointed, inherently unreliable, and impotent to react to uncertainty. *See, e.g.*, Petition at 58-61. Moreover, Joint Petitioners conclude that the deficiencies in the state process leave "no mechanism in Florida to respond to forecast failure," thereby addressing directly the fourth criteria of NUREG-1555. *See* Petition at 59, 60.

The flaws in the state process cited in the Petition lead to a process that is neither systematic nor comprehensive. For example, the determination of need granted in 2008 for the proposed project did not consider the more aggressive DSM goals issued at the end of 2009 by the FL PSC. *See* Petition at Exhibit 33. Instead, the determination of need hearing in 2008 only considered the weaker DSM goals of 2005. This creates a non-systematic and non-comprehensive situation where a utility will resist lower cost prospective efficiency programs in meeting customer demand because it has already garnered a determination of need for its nuclear reactors based on lower efficiency goals.[10]

[10] FPL's attempt to protect its large proposed capital investment in its nuclear plants was evident at the recent 2010 DSM goal setting proceedings. FPL claimed it could not pursue more robust energy efficiency because it had not been granted a determination of need for two nuclear reactors and, in essence, hand no room for more energy efficiency. Petition at 61. FPL assumes the construction of the nuclear reactor and reduces DSM to accommodate it in the resource plan, rather than testing the reactor against DSM. This contradicts the claims made in the most recent docket that FPL has not decided whether or not to build the

Moreover, the state process is not responsive to forecasting uncertainty – as evidenced by the fact that the FL PSC 2008 determination of need could not consider the more aggressive DSM goals of 2009. *See, e.g.,* Petition at 61. To refute this assertion, FPL alleges in its Answer that, "[a]lthough the April 2008 need determination obviously could not consider the specific of DSM goals enacted in December 2009, the FPSC did in fact consider the potential for higher DSM requirements, and found that there would be need for Turkey Point Units 6 & 7, even if DSM were to substantially increase." FPL Answer at 157. FPL's actions, however, lead to an opposite conclusion. Indeed, according to Mr. Sim, Senior Manager of Integrated Resource Planning for FPL, FPL fought an increase in DSM because it would harm its resource need for nuclear plants. *See* Transcript of Docket 080407, Testimony of FPL Witness Sim (Exhibit 6). In Witness Sim's words, "as it turned out, we had for the first time in a DSM goals docket an achievable potential number that was larger than our projected resource needs." Exhibit No. 6 at 170,176. Hence, the 2008 FPSC order cited to by FPL is patently unreliable because it was proved wrong just one year later in the 2009 DSM docket after FPL fought DSM levels that would mitigate the need for the proposed reactor project. This highlighted issue, coupled with the other highlighted state process deficiencies in the Petition, engenders little support for the claim that the state process is systematic, comprehensive, or able to respond to forecasting uncertainty.

Accordingly, Joint Petitioners have presented material disputes of law and fact that implicate the very foundation of FPL and NRC Staff's claims that the state process meets the NUREG guidelines and no further review of the need for the reactors is

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reactors. *See* Petition at Exhibit 30, paragraph 8 (Cooper Declaration); Attachment 2 to Cooper Declaration at 12, 19.

warranted. Contention NEPA 8.2 therefore satisfies the requirements of 10 C.F.R. §2.309 and is admissible.

Contention NEPA 9: The ER fails to adequately address reasonable DSM and renewable energy alternatives to the construction and operation of Units 6 & 7.

REPLY TO FPL AND NRC STAFF ANSWERS

As discussed below, Contention NEPA 9 demonstrates why the consideration of DSM and renewable energy alternatives is material to NRC findings, provides sufficient facts that support this position, and offers sufficient information to establish that the ER does not comply with NEPA requirements. 10 C.F.R. § 2.309(f)(1)(iv)-(vi). NEPA, of course, mandates that the NRC consider alternatives to a proposed action. 42 U.S.C. § 4332(C)(3); s*ee also* 40 C.F.R. §§ 1501.2, 1507.2; 40 C.F.R. § 1502.14 (consideration of alternatives as "the heart of the environmental impact statement"); 10 C.F.R. §51.45(c); 40 C.F.R. § 1500.2 (agencies "shall to the fullest extent possible. . . identify and assess the reasonable alternatives to the proposed action"); 10 C.F.R. § 1502.14(a) (Agencies must "[r]igorously explore and objectively evaluate all reasonable alternatives."); *Citizens for a Better Henderson v. Hodel*, 768 F.2d 1051, 1057 (9th Cir. 1985) (EIS must consider "every" reasonable alternative).

FPL claims that DSM is an inadequate alternative, requiring only cursory treatment in the ER, because it is not "bounded by some notion of feasibility." FPL Answer at 159, citing *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 551 (1978). FPL argues that because "agencies need only discuss those alternatives that are reasonable and 'will bring about the ends' of the proposed action," it need not analyze DSM as an alternative because FPL's elected purpose is "to address future baseload generation needs" with the construction of two

nuclear units. FPL Answer at 157-158. FPL's argument is unpersuasive for several reasons.

First, to the extent FPL argues DSM is not a reasonable alternative because energy conservation is not the purpose of the proposed action, such an argument is baseless. *See* FPL Answer at 162. Courts have barred agencies from narrowing a project's goals unreasonably so as to limit the alternatives considered. *See City of New York*, 715 F.2d 732, 743 (9th Cir. 1982) ("an agency will not be permitted to narrow the objective of its action artificially and thereby circumvent the requirement that relevant alternatives be considered"); *see also City of Carmel-By-The-Sea* 123 F.3d at 1155 ("[t]he stated goal of a project necessarily dictates the range of 'reasonable' alternatives and an agency cannot define its objectives in unreasonably narrow terms"); *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (Dist. D.C. 1991) ("an agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, and the EIS would become a foreordained formality"). By framing its goals as one of addressing future baseload generation needs, FPL attempts to make it a foregone conclusion that only the construction and operation of Units 6 & 7 will satisfy its stated goals.

Secondly, even assuming that FPL's characterization of its goals as one of addressing baseload generation needs is proper, this does not mean that DSM is an infeasible alternative. While it is true that "[a]gencies need only discuss those alternatives that are reasonable and 'will bring about the ends' of the proposed action," FPL's rejection of DSM as one such alternative is incorrectly based on an "all or nothing

approach." *See Hydro Resources*, 53 NRC at 55. That is, FPL dismisses DSM because DSM strategies alone will be unable to eliminate the required increase in baseload capacity. *See* FPL Answer at 159-161. NRC Staff appear to adopt the same argument. *See* NRC Staff Answer at 125.

But as the Court in *Natural Resources Defense Council v. Hodel*, 865 F.2d 288, 296-297 (D.C. Cir. 1988) provided, an agency may not "disregard alternatives merely because they do not offer a complete solution to the problem." Because of this, the Court in *Hodel* rejected the Secretary of Interior's argument that he need not consider partial conservation alternatives to a five-year Outer Continental Shelf oil leasing program *at all* because the nation's energy demands are likely to increase even with gains in energy conservation and development of alternative energy sources. Id. at 295-296. The Court found such an argument "proves too much" because "it would relieve the Secretary of his duty under NEPA to consider alternatives altogether." Id. at 296. The Court further found that the Secretary's argument "overlooks the reasons for NEPA's requirement that agencies consider alternatives," explaining that the purposes of NEPA is not "merely to force the agency to reconsider its proposed action, but, more broadly, to inform Congress, other agencies, and the general public about the environmental consequences of a certain action in order to spur all interested parties to rethink the wisdom of the action." Id. Thus the Court concluded that the Secretary must consider alternatives even if they do not reduce the need for Outer Continental Shelf leasing. Id.

Similarly, FPL's failure to analyze in its ER how DSM could function as part of a multi-faceted approach to accomplishing FPL's stated goal is improper under NEPA.[11] For example, FPL gives no consideration to how DSM, when coupled with another approach or several other approaches, may "bring about the ends of the proposed action." Thus, FPL's dismissal of DSM as an alternative is premature and unsupported in the ER. Moreover, NRC Staff's reliance on *In re S.C. Elec. & Gas Co.*, 69 NRC 87, is misplaced; while the board in that case concluded that a DSM program is not a substitute for the addition of base-load power (the project's purpose) and therefore the petitioner's contention raised matters outside the scope of the proceeding, the contention did not concern the consideration of DSM as a mechanism, when combined with other approaches, to meet the project's goals – as is the case here.

Third, FPL's characterization of DSM as an "unreasonable" alternative because it does not address future baseload generation needs is not wholly consistent with the ER's language noting that other than "residential load management programs" and "commercial/industrial load control programs," DSM programs can reduce demand on an around-the-clock basis. Thus, the programs have base load type characteristics and may be able to meet demand as effectively as new power generation projects. See ER 8.2-8, 8.2-9.

[11] FPL makes passing reference to the fact that it evaluated combinations of alternatives that did not require the construction of new facilities, including the use of DSM, and concluded that no such combinations would replace the baseload capacity that Turkey Point Units 6 & 7 would provide. FPL Answer at 161 (citing ER 9.2-7). That section of the ER, however, only rattles off a list of examples of DSM programs, follows with a conclusory statement that no such combinations would work, and fails to consider any approaches that consist of the construction of one unit or smaller unit or units coupled with other alternatives.

Finally, while Petitioners recognize that the Commission has previously scrutinized the consideration of DSM as a reasonable alternative, such scrutiny has typically arisen in early site permit and renewal cases, not in COL proceedings. *See* NRC Staff Practice and Procedure Digest, Commission, Appeal Board and Licensing Board Decisions, July 1972-August 2009, General Matters, 83 (citing *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 806 (2005)). A licensing board's consideration of reasonable alternatives is substantially different when it is adjudicating an application for a license for an actual facility than when it is adjudicating an early site permit application. *Id.* at 84. For the early site permit application, consideration of reasonable alternatives looks at only alternative sites; for the license application, the analysis of reasonable alternatives would be substantially broader. *See id*. (citing *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), CLI-05-17, 62 NRC 5, 48 (2005). Accordingly, FPL must thoroughly analyze and consider DSM as part of their alternatives analysis in the ER.

Aside from the issue of whether DSM-based alternatives must be considered in an ER, FPL repeatedly asserts that DSM is not feasible because, even if "DSM … substantially increases," FPL will likely cancel natural gas-fired combined cycle plants rather than canceling Turkey Point Units 6 & 7. *See* FPL Answer at 161. However, FPL's own studies have shown that DSM may well be a feasible alternative that could replace the need for the two new reactors. As previously discussed in Contention NEPA 8, Mr. Sim, Senior Manager of Integrated Resource Planning for FPL, testified in the 2009 DSM goals setting docket, that for the first time, an achievable DSM ten-year goal number was larger than the projected resource needs on the initial proposed 2018 start

date for Turkey Point Unit 6. Exhibit 6. Thus, Mr. Sim conceded in his testimony – and contrary to FPL's assertions in its Answer – DSM could displace baseload generation in meeting demand. Exhibit 6. Contention NEPA 9 appropriately alleges that this reasonable alternative was not adequately addressed in the ER.

FPL and the NRC Staff also argue that energy conservation is not a reasonable alternative. FPL Answer at 161-62; NRC Staff Answer at 124-25. In fact, FPL and the NRC staff seem unwilling to deem any alternatives reasonable – both attempt to portray Joint Petitioners' suggested alternatives as beyond the bounds of feasibility and "unrealistic." FPL Answer at 159, 161; NRC Staff Answer at 124-25. FPL claims that most alternatives were simply "deemed uncompetitive" and "eliminated from discussion." NEPA, however, demands more. The agency (and thus the applicant in the ER) must take a "hard look" at energy alternatives in the ER. *See New York v. Kleppe*, 429 U.S. 1307, 1311 (1976). The "hard look" doctrine requires a rigorous analysis of the environmental consequences of a proposed action, and the rule of reason exists only to prevent unlimited bounds for analysis with regard to possible consequences.[12] Contention NEPA 9 appropriately alleges that the perfunctory treatment of alternatives in the ER fails to satisfy NEPA's mandates.

For the foregoing reasons, 10 C.F.R. § 2.309 is satisfied, and therefore Contention NEPA 9 is admissible.

CONCLUSION

For the reasons stated herein, each of Joint Petitioners' contentions should be admitted for hearing.

[12] *Hydro Res. Inc.* 60 N.R.C. 441, 442 (2004) ("Even beyond that stage, the statute requires that the agency take a "hard look" at the environmental effects of the proposal.")

Respectfully submitted this 1st day of October 2010.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	Docket No. 52-040 and 52-041
Florida Power & Light Company	)	
	)	ASLBP No. 10-903-02-COL-BD01
Combined License Application for Turkey Point Units 6 & 7	)	

CERTIFICATE OF SERVICE

I hereby certify that the foregoing **JOINT PETITIONERS' REPLY TO FPL ANSWER OPPOSING PETITION TO INTERVENE AND NRC STAFF ANSWER TO PETITION FOR INTERVENTION** was served upon the following persons by Electronic Information Exchange and/or electronic mail:

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