#### Kimberley Pena

From:

Kimberley Pena

Sent:

Wednesday, August 27, 2008 12:06 PM

To:

'Lee Bidgood'

Cc:

Robert Graves; Cheryl Bulecza-Banks; Katherine Fleming

Subject: RE: docket # 080148 Progress Energy proposal for Levy County

FPSC, CLK - CORRESPONDENCE Administrative Parties Consumer DOCUMENT NO. 02016-08 DISTRIBUTION:

Mr. Bidgood, per this email, you have been added to the mailing list as an interested person.

Thank you for contacting the Florida Public Service Commission.

Kimberley M. Peña Chief Deputy Commission Clerk Office of Commission Clerk Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 (850) 413-6770



From: Lee Bidgood [mailto:bidgood@gator.net] Sent: Wednesday, August 27, 2008 9:25 AM

To: Records Clerk

Subject: docket # 080148 Progress Energy proposal for Levy County

To the PSC:

Please register me as an Interested Party regarding Docket # 080148, Progress Energy's proposed nuclear plant in Levy County.

Sincerely,

Lee Bidgood, Jr. 2419 SW 50th Blvd. Gainesville, FL 32608 (352) 374-3899 bidgood@gator.net

### \*\*CLK OFFICIAL DOCUMENT...\*\*

#### Kimberley Pena

080148

FPSC, CLK - CORRESPONDENCE

Administrative Parties Consumer

DOCUMENT NO 02016-08

DISTRIBUTION: FC2, GC L

From:

Kimberley Pena

Sent:

Tuesday, August 26, 2008 1:09 PM

To:

'bnobrien\_2000@yahoo.com'

Cc: Subject: Robert Graves; Cheryl Bulecza-Banks; Katherine Fleming

RE: Request for interested party

Ms. O'Brien, per this email, we have added you to the mailing list as an interested person.

Thank you for contacting the Florida Public Service Commission.

Kimberley M. Peña Chief Deputy Commission Clerk Office of Commission Clerk Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 (850) 413-6770 708/24/08 m

----Original Message----

From: bonnie O'Brien [mailto:bnobrien\_2000@yahoo.com]

Sent: Tuesday, August 26, 2008 11:27 AM

To: Kimberley Pena

Subject: Request for interested party

Please include me as an interested party in docket #080148, Progess Energy proposed nuclear power plants (2) in Levy County, Florida.

I would like to receive all pertinent information.

Thank you.

Bonnie O'Brien 2329 NW 30th Terrace Gainesville, Florida 32605

#### Kimberley Pena

From: Kimberley Pena

Sent: Thursday, June 26, 2008 1:16 PM

**To:** Katherine Fleming **Subject:** RE: Dkt. 080148

FPSC, CLK - CORRESPONDENCE
Administrative Parties Consume
DOCUMENT NO. 2216-08
DISTRIBUTION:

Per your voicemail, we will remove the below referenced company from the mailing list. Thank you for your help in this matter.

From: Kimberley Pena

Sent: Monday, June 23, 2008 1:09 PM

**To:** Katherine Fleming **Subject:** Dkt. 080148

Katherine, we have received a request from Inglis Hydropower, LLC to be removed as an interested person in this docket. Please let me know if we have your approval to remove.

Tore Julos proposed

#### \*\*CLK OFFICIAL DOCUMENT...\*\*

#### Kimberley Pena

From:

Dean Edwards [inglishydro@hotmail.com]

Sent:

Tuesday, June 17, 2008 11:20 AM

To: Cc: Costello, Jeanne; Filings@psc.state.fl.us Katherine Fleming; Caroline Klancke; Keino Young; burgess.steve@leg.state.fl.us;

charles.gauthier@dca.state.fl.us; mike.halpin@dep.state.fl.us; jbrew@bbrslaw.com; ljacobs50

@comcast.net; kstorain@potashcorp.com; john.burnett@pgnmail.com;

paul.lewisjr@pgnmail.com; Walls, J. Michael; Triplett, Dianne; Tibbetts, Arlene; Stright, Lisa

Subject:

DOCKET NO. 080148-EI, Remove Inglis Hydropower, LLC from mailing list

Florida Public Service Commission Office of Commission Clerk

RE: DOCKET NO. 080148-EI

PETITION FOR DETERMINATION OF NEED FOR LEVY UNITS 1 AND 2 NUCLEAR POWER PLANTS, BY PROGRESS ENERGY FLORIDA, INC.

Inglis Hydropower, LLC has received sufficient information regarding the construction and operation of the two proposed Progress Energy nuclear plants in Levy County, FL to determine that the proposed projects will have minimal impact on our Inglis Hydropower project. Therefore, Inglis Hydropower respectfully requests that it be removed from the list of interested person's mailing list.

Dean Edwards Manager

The other season of giving begins 6/24/08. Check out the i'm Talkathon. http://www.imtalkathon.com?source=TXT EML WLH SeasonOfGiving



Inglis
Hydropower, LLC
Hydro development

RECEIVED-FPSC

08 JUN 20 AM 10: 06

P3. Box 1565 Dover, FL 33527 813 659-3014

COMMISSION CLERK

inglishydro@hotmail.com inglishydropower.com

June 17, 2008

Florida Public Service Commission Office of Commission Clerk Room 148, Betty Easley Conference Center 4075 Esplanade Way Tallahassee, Florida 32399

RE: DOCKET NO. 080148-EI PETITION FOR DETERMINATION OF NEED FOR LEVY UNITS 1 AND 2 NUCLEAR POWER PLANTS, BY PROGRESS ENERGY FLORIDA, INC.

Inglis Hydropower, LLC has received sufficient information regarding the construction and operation of the two proposed Progress Energy nuclear plants in Levy County, FL to determine that the proposed projects will have minimal impact on our Inglis Hydropower project. Therefore, Inglis Hydropower respectfully requests that it be removed from the list of interested person's mailing list.

Dean Edwards

Manager

#### Kimberley Pena

From:

Kimberley Pena

Sent:

Thursday, June 26, 2008 10:12 AM

To:

'Jessica Williams'

Subject: RE: Interested Party

DE 11 1 1D 1

080148

FPSC, CLK - CO	RRESPONDENCE
Administrative U	Parties Consumer
DOCUMENT NO	. 02016-08
DISTRIBUTION:	Parameter and the contrast of

Per this email, we have added you to the mailing list of Dockets 040148 and 080009 as interested person.

Please let me know if I can be of further help.

Kimberley M. Peña Chief Deputy Commission Clerk Office of Commission Clerk Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 (850) 413-6770



From: Jessica Williams [mailto:Jess@fcan.org] Sent: Wednesday, June 25, 2008 3:19 PM

To: Records Clerk

Subject: Interested Party

Hello,

Florida Consumer Action Network would like to sign on as an interested party to docket numbers 080148 and 080009. I will be the contact person for this case, and FCAN's contact information is below.

Thank You,

Jessica Williams
Assistant Program Organizer
Jess@fcan.org

Florida Consumer Action Network PH 813-877-6712 FX 813-877-6651 3018 W. Kennedy Blvd., Ste B Tampa, FL 33609 www.fcan.org

#### Kimberley Pena

From:

Kimberley Pena

Sent:

Wednesday, July 23, 2008 8:24 AM

To:

'Paulette'

Subject: RE: Copy Request Form - REQUEST NUMBER: 238

Per this email, I will add you as an interested person in Docket 080148.

FPSC, CLK - CORRESPONDENCE
☐ Administrative ☐ Parties ☐ Consumer DOCUMENT NO. 02014-08
DISTRIBUTION:

**From:** Paulette [mailto:pmassari@tampabay.rr.com]

Sent: Tuesday, July 22, 2008 5:16 PM

To: Kimberley Pena

Subject: Re: Copy Request Form - REQUEST NUMBER: 238

Dear Kimberly - Thank you so much for the information you provided. I will let you know if I have any further questions as I

enter into the link you detailed.

Paulette Massari, L.C.S.W., C.A.P., S.A.P.

---- Original Message -----From: Kimberley Pena

To: Paulette

Sent: Tuesday, July 22, 2008 8:40 AM

Subject: RE: Copy Request Form - REQUEST NUMBER: 238

The Docket No. is 080148-El for the Levy Units 1 and 2. You can monitor this docket from our web site (http://www.psc.state.fl.us). Go to the tab Dockets & Filings and choose Dockets from the dropdown box. On the search window enter your docket number. Next, click on Documents Filings Index. You will see a table with all the filings in this docket where you can download them for review. We will more than glad to provide you with copies of all the documents if you want. Our prices are five cents per page and \$14 per hour for copying. Emailing them will not be wise because the PDF files are too big and can create problems for your computer and mine. I'm speaking from experience. I've crashed a few computers trying to be helpful.

As for other dockets, you can also monitor dockets by going to Dockets & Filings and choosing Dockets. This time, go to the blue box on the top and you can click on the dockets opened recently or just concentrate on electric industry dockets.

Let me know what you would like to do or if you need help navigating the web site.

Kimberley M. Peña Chief Deputy Commission Clerk Office of Commission Clerk Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 (850) 413-6770

From: Paulette [mailto:pmassari@tampabay.rr.com]

Sent: Monday, July 21, 2008 5:54 PM

To: Kimberley Pena

Subject: Re: Copy Request Form - REQUEST NUMBER: 238

I've only read about the Levy county one, Kim, but I also read that after that there would be another one. There was no

information regarding that location. When I say I read about it, the newspaper was the St. Pete Times referring to a meeting on the 15th of this month. Thanks for your prompt and kind response. Paulette Massari

---- Original Message ----From: Kimberley Pena

To: Paulette

Sent: Friday, July 18, 2008 4:31 PM

Subject: RE: Copy Request Form - REQUEST NUMBER: 238

Ms. Massari, could you clarify which nuclear plant your are interested to know about or your want all the plants? Once I get your clarification I can identify the docket(s) and refer you to our website for retrieval of related documents. I misunderstood your request, initially, and with your response I will be able to add you to the mailing list of the correct docket(s). I apologize for my confusion.

Kimberley M. Peña Chief Deputy Commission Clerk Office of Commission Clerk Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 (850) 413-6770

From: Paulette [mailto:pmassari@tampabay.rr.com]

Sent: Friday, July 18, 2008 11:42 AM

To: Kimberley Pena

Subject: Re: Copy Request Form - REQUEST NUMBER: 238

Kimberly. Thanks for such a prompt reply. I am guessing that I've made an error. I wanted all the possible records regarding the plans for the nuclear plant in Florida.

Can I possibly receive all documents regarding this issue? It would seem impossible for me to attend meetings in Tallahassee but I would like to have the agenda and ways to respond to the committee. I guess I'm disappointed that I didn't know and was not able to respond to this issue in a timely manner. I've been in Florida for 8 years and have to admit that all of the intricacies of the various government organizations make my head swim. For example, are the Public Service Commissioners paid positions and/or appointed? Are there ever PSC meetings in other parts of the state? I really appreciate any information you might be able to provide and I'd like to be put on the emailing list for agendas and updates if possible. Thank you.

Paulette Massari, Largo

---- Original Message -----From: Kimberley Pena

To: pmassari@tampabay.rr.com
Cc: Shannon Kee ; Clara Leider
Sent: Friday, July 18, 2008 8:03 AM

Subject: RE: Copy Request Form - REQUEST NUMBER: 238

Ms. Massari, per your request, please find attached the 07/17/08 recommendation in docket 060246. Please let me know if you have any problems with the attachment or if you need further help.

Thank you for contacting the Florida Public Service Commission.

Kimberley M. Peña Chief Deputy Commission Clerk Office of Commission Clerk Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 (850) 413-6770 From: Public Request for Records [mailto:pmassari@tampabay.rr.com]

Sent: Thursday, July 17, 2008 5:16 PM

To: Kimberley Pena; Benjamin Legaspi; Shannon Kee; Clara Leider

Subject: Copy Request Form - REQUEST NUMBER: 238

A request for copies of documents was filed on-line. Please click on each link below to access a PDF file. To print the request, choose Print from the File menu. To save the request to a PDF file on your computer, choose **Print from the File Menu**, then select **Acrobat Distiller** from the printer list. (If Acrobat Distiller is not available, you will not be able to save this file locally.)

Copy Request 1

Request from: Paulette Massari Address: 8225 101 Court N

#### Document(s) requested:

060246 2008-07-17 Staff Recommendation 2008-07-17 (060246 2008-07-17 Staff Recommendation 2008-07-17, 060246 2008-07-17 Staff Recommendation 2008-07-17, 060246 2008-07-17 Staff Recommendation 2008-07-17)

#### \*\*CLK OFFICIAL DOCUMENT...\*\*

#### **Kimberley Pena**

From:

postmaster@PSCSMTPSrvr

Sent:

Tuesday, July 22, 2008 8:40 AM

To:

Kimberley Pena

Subject:

Delivery Status Notification (Relay)

Attachments:

ATT364117.txt; RE: Copy Request Form - REQUEST NUMBER: 238





ATT364117.bxt RE: Copy

(288 B) ast Form - REQL

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

pmassari@tampabay.rr.com

#### Kimberley Pena

From:

Kimberley Pena

Sent:

Thursday, June 12, 2008 8:45 AM

To:

'dshirreffs@cleanwater.org'

Subject: FW: Docket 080148

FPSC, CLK - CORRESPONDENCE

Administrative Parties Consumer DOCUMENT NO. 02016 -08 DISTRIBUTION:

Per this email, we have added you to the mailing list as an interested person. Please let us know if we can be of further assistance.

Thank you for contacting the Florida Public Service Commission.

Kimberley M. Peña Chief Deputy Commission Clerk Office of Commission Clerk Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 (850) 413-6770

From: Dawn Shirreffs [mailto:dshirreffs@cleanwater.org]

Sent: Wednesday, June 11, 2008 11:02 AM

To: Records Clerk

Subject: Docket 080148

Please consider this email as my formal request to be added as an interested party to Docket # 080148

Petition for determination of need for Levy Units 1 and 2 nuclear power plants, by Progress Energy Florida, Inc.

Thank you for your assistance.

Sincerely,

Dawn Shirreffs South Florida Community Organizer Clean Water Action Clean Water Fund www.cleanwater.org

190 Ives Dairy Road, Suite 106 Miami, Florida 33179 305.653.9101 305.653.9108 fax

100 le 12/08

#### **Ruth Nettles**

080148

From:

Al Taylor [Al.Taylor@bbrslaw.com]

Sent:

Wednesday, June 11, 2008 9:11 AM

To:

**Ruth Nettles** 

Subject: Address of

The address for Ms. Torain should be as follows:

Karin S. Torain Legal Counsel PCS Administration (USA), Inc. Suite 400 1101 Skokie Boulevard Northbrook, IL 60062 KSTorain@potashcorp.com (847) 849-4291

Thank you for your help with this matter.

F. Alvin Taylor
BRICKFIELD BURCHETTE RITTS & STONE, PC
1025 Thomas Jefferson St, N.W.
Eighth Floor, West Tower
Washington, DC 20007
202-342-0800
Fax: 202-342-0807
ataylor@bbrslaw.com

Corrected 080148 6/11/08 080149 A.V.N. FPSC, CLK - CORRESPONDENCE
Administrative Parties Consumer
DOCUMENT NO. 02016 - 08
DISTRIBUTION:

#### **Ruth Nettles**

From:

**Ruth Nettles** 

Sent:

Friday, May 23, 2008 4:31 PM

To:

'Al Taylor'

Cc:

Dorothy Menasco; Kimberley Pena

Subject: RE: Docket No. 080148 - PCS Phosphate's Filing of Late-Filed Exhibit No

Mr. Taylor,

Thank you for this information. We will place this in Parties Correspondence: DN 02016-08.

Thank you. **Ruth Nettles** Office of Commission Clerk 850-413-6770

From: Al Taylor [mailto:Al.Taylor@bbrslaw.com]

Sent: Friday, May 23, 2008 4:20 PM To: Kimberley Pena; Ruth Nettles

Cc: Jay Brew

Subject: RE: Docket No. 080148 - PCS Phosphate's Filing of Late-Filed Exhibit No. 71

The documents in the earlier email were submitted pursuant to, and consistent with, the Chairman's instructions at yesterday's hearing. The note accompanying the filing was for the benefit of the parties and was not intended to be part of the record.

F. Alvin Taylor

BRICKFIELD BURCHETTE RITTS & STONE, PC 1025 Thomas Jefferson St. N.W. Eighth Floor, West Tower

Washington, DC 20007 202-342-0800

Fax: 202-342-0807 ataylor@bbrslaw.com

From: Filings@psc.state.fl.us [mailto:Filings@PSC.STATE.FL.US]

Sent: Friday, May 23, 2008 4:15 PM

To: Al Taylor

Cc: Kimberley Pena: Ruth Nettles

Subject: FW: Docket No. 080148 - PCS Phosphate's Filing of Late-Filed Exhibit No. 71

Mr. Taylor,

We have received your attached documents. Please note that per e-filing requirements, the e-mail message transmitting the document(s) to be filed is not itself considered a filing. Therefore, documents contained within the text of an e-mail transmission will not be considered filed. Please note that multiple documents may be attached to the same e-mail transmittal. However, any cover letter or certificate of service must be included in the electronic document to which it relates, and shall not be submitted as a separate attachment to the e-mail.

A link to the Commission's e-filing requirements has been included for your convenience. http://www.psc.state.fl.us/dockets/e-filings/

Your filing will need to be revised and resubmitted in order to conform to the above-mentioned e-filing requirements.

Feel free to call our office if you have any questions.

5/23/2008

FPSC, CLK - CORRESPONDENCE Administrative Parties Consumer DOCUMENT NO. 02016-08 DISTRIBUTION:

Dorothy Menasco FPSC Office of Commission Clerk 850-413-6330

From: Al Taylor [mailto:Al.Taylor@bbrslaw.com]

Sent: Friday, May 23, 2008 2:36 PM

To: Filings@psc.state.fl.us

Cc: 'mwalls@carltonfields.com'; 'charles.gauthier@dca.state.fl.us'; 'paul.lewisjr@pgnmail.com'; 'Mike.Halpin@dep.state.fl.us'; 'john.burnett@pgnmail.com'; 'Kelly.jr@leg.state.fl.us'; Jay Brew; 'burgess.steve@leg.state.fl.us'; 'alex.glenn@pgnmail.com'; 'dtriplett@carltonfields.com'; Caroline Klancke; Katherine Fleming; Jean Hartman; Keino Young; 'Ljacobs50@comcast.net'; 'inglishydro@hotmail.com'; 'RobBrinkman@cox.net'

Subject: Docket No. 080148 - PCS Phosphate's Filing of Late-Filed Exhibit No. 71

Pursuant to the discussions at the hearing yesterday, attached are (i) the full, 43-page Summary of Findings of CRA's Economic Analysis of the Lieberman-Warner Climate Security Act, and (ii) the one page Summary of Results of the CRA Analysis of the Climate Security Act. <u>Together</u>, these documents constitute Exhibit No. 71.

a. Person responsible for filing

James W. Brew
Brickfield, Burchette, Ritts & Stone, P.C.
1025 Thomas Jefferson Street, N.W.
Eighth Floor West Tower
Washington, D.C. 20007
Tel: (202) 342-0800
Fax: (202) 342-0807
jwb@bbrslaw.com

- b. Docket No. 080148-EI, In Re: Petition for Determination of Need for Levy Units 1 and 2 Nuclear Power Plants
- c. Filed on behalf of White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate White Springs
- d. Total Pages = 44
- e. Late-Filed Exhibit No. 71 of White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate White Springs (attached as CRA S2191\_April08\_2008\_SummaryTable.pdf and CRA\_NMA\_S2191\_April08\_2008.pdf)

F. Alvin Taylor
BRICKFIELD BURCHETTE RITTS & STONE, PC
1025 Thomas Jefferson St, N.W.
Eighth Floor, West Tower
Washington, DC 20007
202-342-0800
Fax: 202-342-0807

Fax: 202-342-0807 ataylor@bbrslaw.com

#### Kimberley Pena

From:

Al Taylor [Al.Taylor@bbrslaw.com]

Sent:

Friday, May 23, 2008 2:36 PM

To:

Filings@psc.state.fl.us

Cc:

'mwalls@carltonfields.com'; 'charles.gauthier@dca.state.fl.us'; 'paul.lewisjr@pgnmail.com'; 'Mike.Halpin@dep.state.fl.us'; 'john.burnett@pgnmail.com'; 'Kelly.jr@leg.state.fl.us'; Jay Brew;

'burgess.steve@leg.state.fl.us'; 'alex.glenn@pgnmail.com'; 'dtriplett@carltonfields.com'; Caroline Klancke; Katherine Fleming; Jean Hartman; Keino Young; 'Ljacobs50@comcast.net'; 'inglishydro@hotmail.com';

'RobBrinkman@cox.net'

Subject:

Docket No. 080148 - PCS Phosphate's Filing of Late-Filed Exhibit No. 71

Attachments: CRA\_NMA\_S2191\_April08\_2008.pdf; CRA S2191\_April08\_2008\_SummaryTable.pdf

Pursuant to the discussions at the hearing yesterday, attached are (i) the full, 43-page Summary of Findings of CRA's Economic Analysis of the Lieberman-Warner Climate Security Act, and (ii) the one page Summary of Results of the CRA Analysis of the Climate Security Act. <u>Together</u>, these documents constitute Exhibit No. 71.

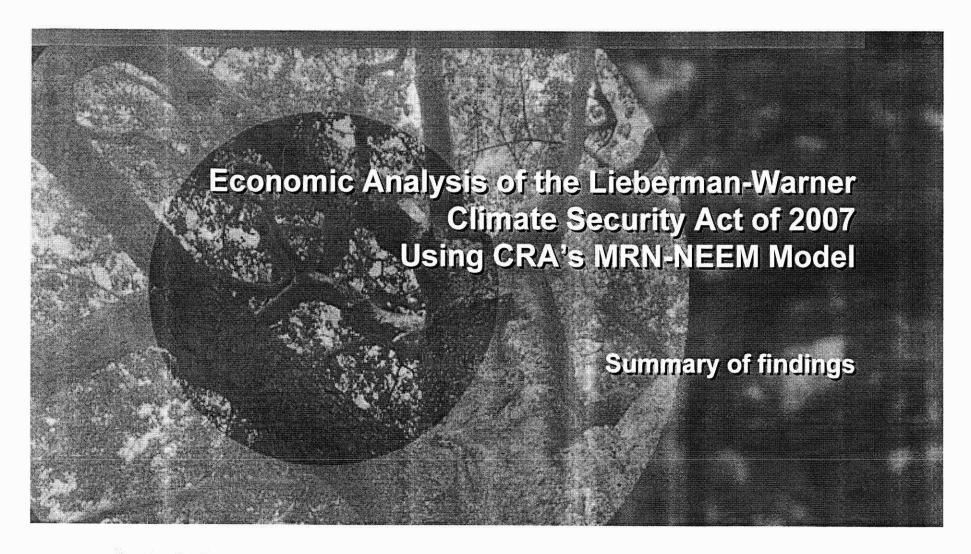
a. Person responsible for filing

James W. Brew Brickfield, Burchette, Ritts & Stone, P.C. 1025 Thomas Jefferson Street, N.W. Eighth Floor West Tower Washington, D.C. 20007 Tel: (202) 342-0800

Tel: (202) 342-0800 Fax: (202) 342-0807 jwb@bbrslaw.com

- b. Docket No. 080148-EI, In Re: Petition for Determination of Need for Levy Units 1 and 2 Nuclear Power Plants
- c. Filed on behalf of White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate White Springs
- d. Total Pages = 44
- e. Late-Filed Exhibit No. 71 of White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate White Springs (attached as CRA S2191\_April08\_2008\_SummaryTable.pdf and CRA\_NMA\_S2191\_April08\_2008.pdf)

F. Alvin Taylor
BRICKFIELD BURCHETTE RITTS & STONE, PC
1025 Thomas Jefferson St, N.W.
Eighth Floor, West Tower
Washington, DC 20007
202-342-0800
Fax: 202-342-0807
ataylor@bbrslaw.com





For Additional Information Contact: W. David Montgomery Anne E. Smith

April 8, 2008

## Introduction

In the 110<sup>th</sup> Congress, Senators Lieberman and Warner introduced a bill, the *Lieberman-Warner Climate Security Act of 2007* (S.2191), to reduce GHG emissions. CRA International, Inc. (CRA) has analyzed the economic and industry impacts of S.2191 *as passed by the Senate Environment and Public Works committee*.

The following pages describe CRA's approach to modeling S.2191 and summarize the results of the analysis. This summary of findings was prepared for the National Mining Association.

All impacts are stated relative to a baseline that includes H.R.6, unless otherwise noted.

CRA's Climate Team members who contributed to this study:

Robert Baron Paul Bernstein Barclay Gibbs
David Montgomery

Anne Smith
Sugandha Tuladhar

Scott Bloomberg

Jeff Plewes

Mei Yuan



CRA's Modeling Approach for S.2191

# CRA's Analysis Is the First to Include All the Provisions of S.2191, H.R.6 and AEO2008

- Earlier analyses released by others did not include one or more of the following:
  - Final CO<sub>2</sub> cap and coverage
  - Low Carbon Fuel Standard
  - H.R.6 provisions
  - EIA's AEO2008

This analysis supersedes earlier MRN-NEEM results released in 2007, which were for an earlier version of S.2191 and which pre-dated the enactment of H.R.6 and the early release of AEO2008



## **Contents**

- I. Key Elements of S.2191
- II. Overview of CRA's Modeling Approach for S.2191
- III. Summary Results for S.2191
- IV. Appendix and List of Acronyms



# I. Key Elements of S.2191



# **Key Elements of S.2191**

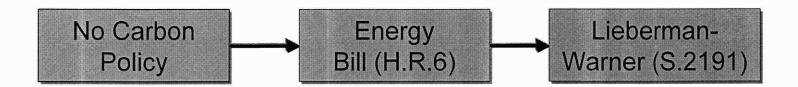
- Emission cap of 5,775 million metric tons CO<sub>2</sub> for covered sectors and gases in 2012, declining to 1,732 million metric tons by 2050
  - All emissions from natural gas combustion are covered under an upstream cap
- Low Carbon Fuel Standard (LCFS)
  - Average lifecycle GHG emissions per unit of energy in transportation fuel have to be reduced to 5% and 10% below the 2008 average in 2015 and 2020, respectively
- Domestic offsets are limited to 15% of allowance submission requirements
  - This is approximately equivalent to 17.65% of the cap
  - Allowances issued by other countries having "mandatory" caps of "comparable stringency" to the US could provide an additional 15%
- Unlimited banking and limited borrowing are allowed
- Carbon Market Efficiency Board (CMEB)
  - Can authorize additional borrowing or use of offsets
- Bonus allowances to CCS and specified land use changes
- Specific allotment of auction revenues for technology subsidies



# II. Overview of CRA's Modeling Approach for S.2191



# Scenarios Considered in CRA's Modeling of S.2191



#### This includes:

- AEO2008 (early release) natural gas prices
- AEO2008 (early release) electricity demand growth
- AEO2008 (early release) non-electric CO<sub>2</sub> emissions
- AEO2008 (early release) vehicle miles traveled (VMT)

CRA used EIA's early release of AEO2008, which does not include H.R.6 provisions

#### This adds:

- CAFE
- Renewable Fuel Standard (RFS)
- Electricity end-use efficiency standards

#### This further adds:

- GHG cap (as reported out of committee)
- Low Carbon Fuel Standard (LCFS)
- 15% domestic offsets
- CCS bonus allowances
- Sector/region-specific allowance allocations



# MRN-NEEM Has Been Significantly Enhanced to Be Able to Address Specific Elements of H.R.6 and S.2191

- Explicit representation of consumer choices of fuel economy and driving
- Variety of low/zero carbon transportation fuels that can be substituted for gasoline
- Additional zero carbon substitutes for natural gas uses in households and commercial buildings
  - Assumes the availability of unknown future technologies with widespread applicability and low enough cost to limit the long-term negative economic outcomes
- Feedback effects to incorporate the benefits of lower world crude oil prices due to H.R.6 and S.2191
- Calibration to AEO2008 (early release)

This analysis supersedes earlier MRN-NEEM results released in 2007, which were for an earlier version of S.2191 and which pre-dated passage of H.R.6 and AEO2008 (early release)



# **Key Technology Assumptions**

## Generating technologies

- Cost assumptions for new technologies are in line with other recent estimates and decline over time (see table at back of appendix)
- Recent inflation in construction costs has driven actual new plant costs above even these recent estimates

#### CAFE standards

 Costs of improving new car fuel economy are based on the low end of the cost range in NAS's study, "Effectiveness and Impact of CAFE Standards" (2002)

## Low carbon fuels lifecycle emissions <u>relative to gasoline</u>

- Corn-based ethanol 25% reduction
- Low carbon biofuel 80% reduction
- Zero carbon fuel 100% reduction

A more detailed description of the assumptions and methodology will be provided in a forthcoming report



# CRA's Analysis Fully Represents S.2191 Provisions that Are Intended to Lower Costs

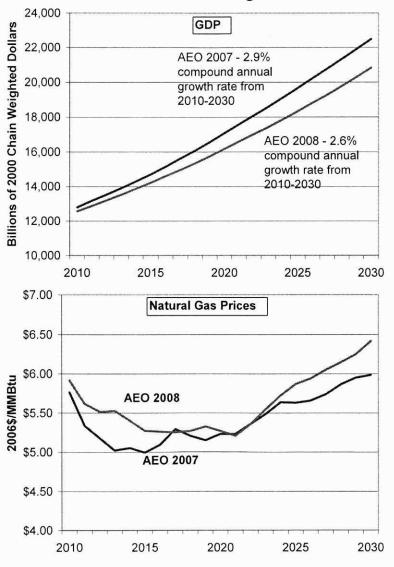
- Bonus allocations and technology deployment subsidies
  - CCS bonus allocations are assumed to be fully subscribed and lead to 34
     GW of CCS between 2015 and 2030
  - New technologies for zero carbon transportation fuels and replacement of natural gas in buildings are assumed to appear and be cost competitive
  - These technologies do not exist today and will require large investments in R&D
  - Deployment subsidies under Title IV of S.2191 would be fully utilized by CRA's projected technology investments
- Low Carbon Fuel Standard reduces emissions starting in 2015
- Allocations of allowances are based on the explicit language of the bill, including allocations for low income energy assistance
  - Household impacts include the benefits of these allowance allocations



# Some Bill Provisions Are Projected to Have No Effect

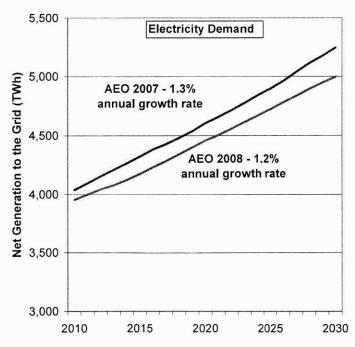
- Carbon Market Efficiency Board (CMEB)
  - Analysis shows that all the incentives are for banking, thus CMEB's powers to alter borrowing limits and terms does not affect estimates of long-term expected prices
  - Since the limit on domestic offsets is projected not to be reached until after 2025, allowing greater use of domestic offsets does not reduce near term costs
- International allowances may only be obtained from countries having "mandatory" caps of "comparable stringency," which CRA interprets to imply that CO<sub>2</sub> prices would be similar to those under US policy
  - These words in S.2191 mean that international offsets (e.g., CDM) from developing countries without mandatory caps cannot be used to meet the S.2191 cap
  - Access to international offsets, in particular from legitimate forestry or other projects not allowed under CDM rules, could reduce costs if the language were to be changed to allow them

# AEO2008<sup>1</sup> Projects Lower Output and CO<sub>2</sub> Emissions



#### **Compared to AEO2007 Forecast**

- Lower GDP growth, coupled with lower electricity demand growth lead to lower baseline CO<sub>2</sub> emissions
- Higher natural gas prices make natural gas a less favorable alternative to coal in the electricity generation baseline



<sup>1</sup> Early release of AEO2008 – excludes H.R.6 provisions



# H.R.6 Mandates Lead to Lower CO<sub>2</sub> Emissions ... at a Cost

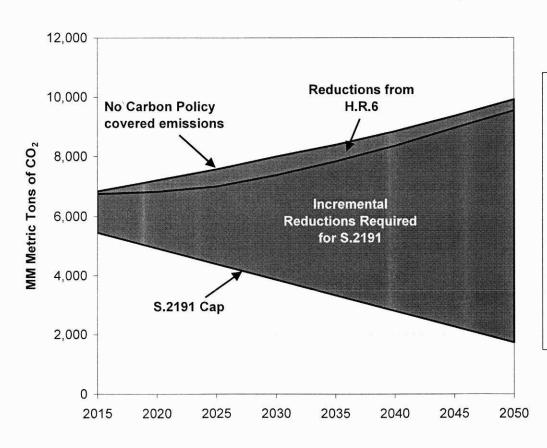
The costs of these mandates are included in the H.R.6 scenario to which the S.2191 scenario is compared

## The H.R.6 mandates modeled in this analysis are:

- CAFE average new vehicle fuel economy standard increased to 35 miles per gallon (MPG) by the year 2020
  - Phase-in begins in 2011 and increases at the "maximum feasible rate" thereafter
- Renewable Fuel Standard (RFS) requires renewable fuel use to increase from 9 billion gallons in 2008 to at least 36 billion gallons by the year 2022
  - In 2022, at least 21 billion gallons of the 36 billion gallons must be advanced biofuels
- Energy efficiency standards prescribed for external power supplies, some home appliances, certain air-conditioning products, incandescent lamps and other lighting products



# Respective Emission Reductions Estimated for H.R.6 and S.2191



- H.R.6 provides emission reductions from its mandated fuel economy, energy efficiency and renewable fuel standards
- S.2191 requires a large incremental emission reduction beyond those likely to be achieved as a result of H.R.6
- Even the No Carbon Policy scenario has substantial built-in improvements in carbon-intensity, as can be seen on slide 35 of the Appendix

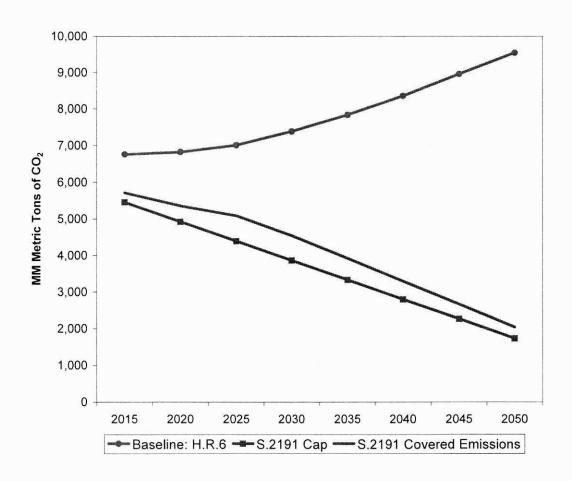


# III. Summary Results for S.2191



Summary Results for S.2191

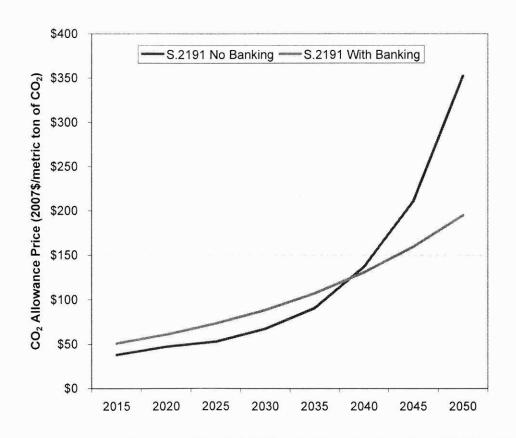
# CO<sub>2</sub> Cap and Emissions



- Difference between S.2191
   Cap and S.2191 Covered
   Emissions is the purchase of offsets
- The limit on domestic offsets is projected to be reached only after 2025
- This means that the CMEB's power to increase the domestic offset limit would not be able to reduce economic impacts of S.2191 in years before 2025



# Cost of Reducing Emissions - CO<sub>2</sub> Allowance Prices



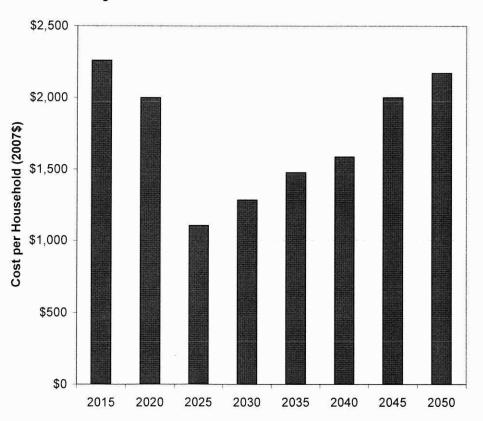
- Allowance prices would have been higher in the early years if the command and control regulations (CAFE, RFS, LCFS and efficiency standards) that loosen the effective cap on the remaining sources had not been modeled
- In scenarios in which banking takes place, carbon prices are higher before 2040 and lower after 2040

The inclusion of banking reduces total costs of S.2191 from \$4.8 trillion to \$4.7 trillion (present value, 2007\$)



Summary Results for S.2191

# Cost per Household

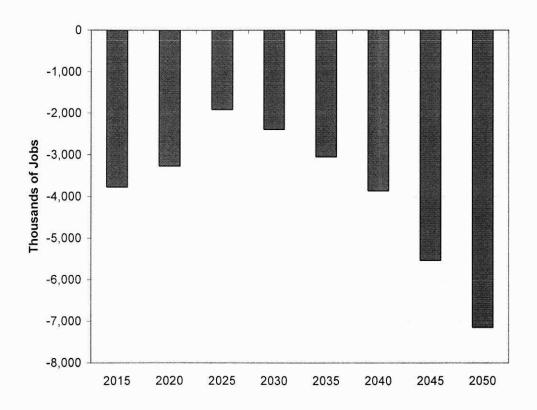


- Cost per household sums up all the effects of legislation, including energy and other prices, wages, hours worked, investment income and taxes
- The dollar impacts shown at the left are calculated as the percentage reduction in the future year applied to today's income, to give a number that is meaningful in relation to readers' income experiences
- Average household of 2.6 persons has median income today of about \$50,000

The reason that costs are higher in 2015 and 2020 than in later years is the tightness of S.2191's LCFS in those years. Costs fall in 2025 because the CAFE standard in the H.R.6 scenario becomes the requirement that is harder to attain, hence, those costs are moved to the H.R.6 scenario and are no longer attributed to the incremental impact of S.2191 (see slide 36 of the Appendix for information on costs of H.R.6 alone).



# **Net Change in Employment**

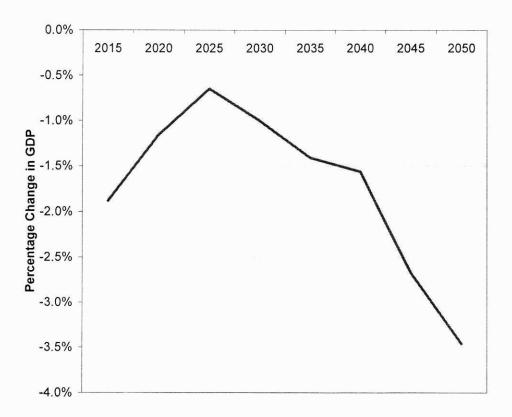


- With S.2191, there is lower labor productivity due to the diversion of investment and resources to mitigation leading to fewer job opportunities and lower total employment
- Green job gains are fully accounted for, but more than offset by job losses in declining sectors and the overall economy



Summary Results for S.2191

## Impacts of S.2191 on GDP



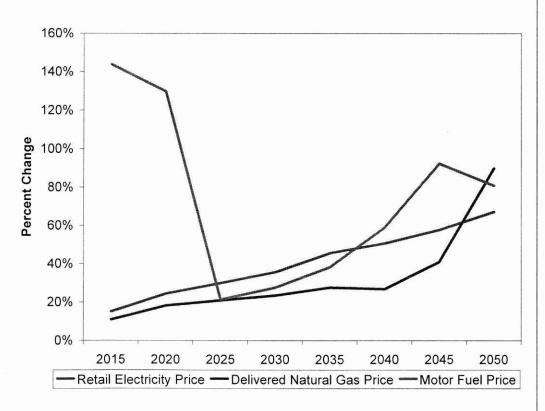
- The relatively large GDP losses in 2015 and 2020 are attributable to the high cost of complying with the LCFS
- 2025 through 2035 impacts are moderated because CAFE is already incorporated in the H.R.6 "baseline" in the chart (see slide 36 of the Appendix for information on H.R.6 impacts)
- Late year impacts are attributable to the limited applicability of zero carbon technologies throughout the economy when caps require near zero emissions

The 1.9% decline in GDP in 2015 translates to a \$330 billion GDP reduction in that year (2007\$). Annual GDP losses accumulate to \$5.3 trillion by 2050 (present value, 2007\$).



Summary Results for S.2191

# Household Cost of Energy Electricity, Natural Gas and Motor Fuel at the Pump

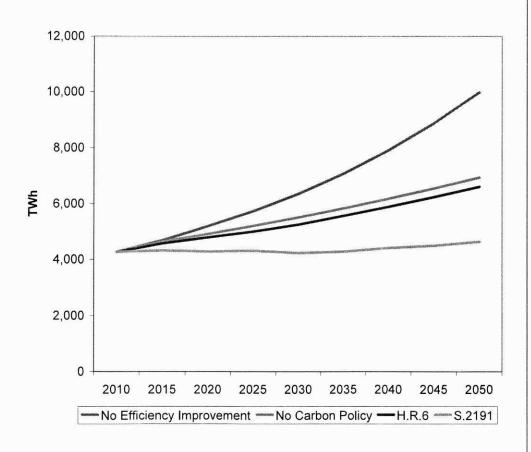


- Motor fuel prices increase to extraordinary levels in 2015 and 2020 due to the high price associated with low carbon fuel credits in response to the infeasibility of meeting near term LCFS requirements without large reductions in total fuel demand
- Retail electricity prices increase to cover higher fuel costs, increased capital expenditures for new generation technologies and CO<sub>2</sub> allowance prices
- Delivered natural gas prices increase in the near term because of the increased demand for natural gas and long term because of the CO<sub>2</sub> emissions from natural gas combustion
- Retail electricity prices increase less than natural gas in 2050 because electricity is effectively decarbonized



Summary Results for S.2191

## **Electricity Demand**

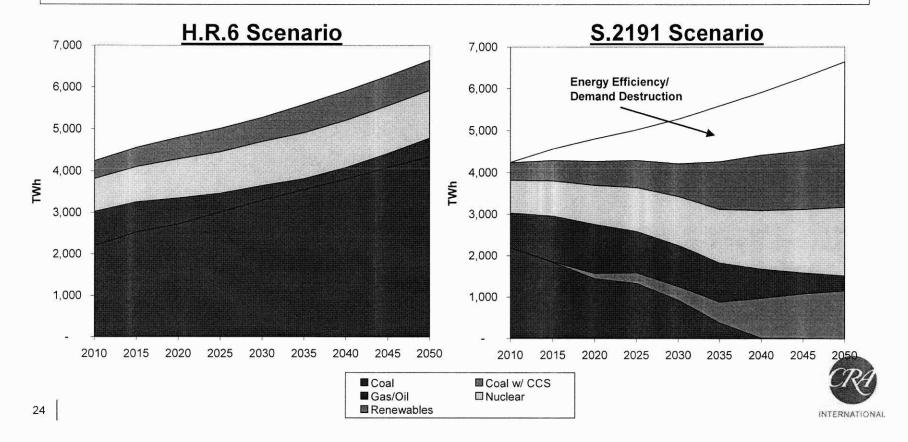


- Achieving S.2191 emission targets requires an additional efficiency improvement that exceeds the efficiency improvement built into the No Carbon Policy scenario
- The No Efficiency Improvement scenario assumes a constant emissions to GDP ratio given GDP projection (e.g., no technology improvement in the future)
- The No Carbon Policy scenario incorporates efficiency improvements in AEO2008 (early release)
- The H.R.6 scenario includes efficiency improvements resulting from new standards
- The S.2191 scenario incorporates additional efficiency improvements and demand destruction driven by high CO<sub>2</sub> prices



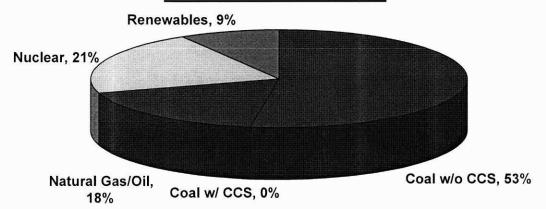
## S.2191 Shifts Generation to Lower Carbon Technologies

- Meeting the S.2191 emissions targets requires the addition of significant quantities of nuclear and renewables generating capacity ... and a large increase in energy efficiency
- S.2191's bonus allowances lead to 34 GW of CCS up to 2030
- CCS is necessary to meet demand after 2030, but has the highest cost of the lower carbon options
- Natural gas generation must increase significantly before 2030 as one of the ways of replacing coal, but then declines because its emissions are too high to meet long-term targets

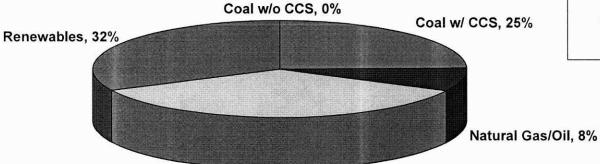


## **Generation Mix Comparison**

### 2005 Generation Mix<sup>1</sup>

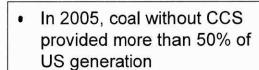


## 2050 Generation Mix under S.2191 Scenario<sup>2</sup>



Nuclear, 35%

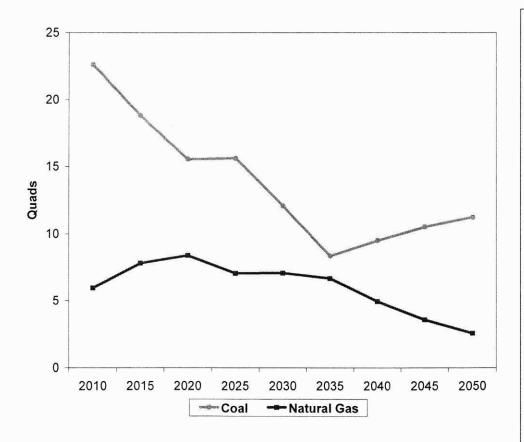
- <sup>1</sup> Historical data from AEO2008 (early release)
- <sup>2</sup> CRA projection



To meet the 2050 S.2191
 emission target would require
 eliminating all coal without
 CCS; reducing natural gas/oil
 generation by half; adding
 coal with CCS to meet 25%
 of generation needs;
 increasing nuclear to 35%;
 and increasing renewables to
 more than 30%



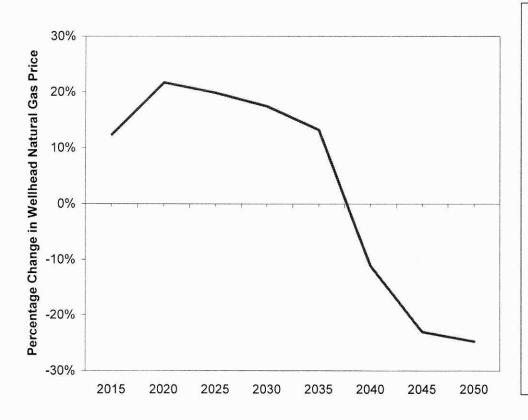
## Fuel Use in the Electric Sector



- Required reductions pre-2020 can only be achieved via replacement of coal-fired generation with natural gas-fired generation
- Coal use will decline by more than 60% before CCS technology is projected to become widely available and allow coal to return
- Nuclear builds are likely to be limited by regulatory requirements
- CCS, which would capture CO<sub>2</sub> emissions from coal-fired generation, is not likely to be available on a large scale before 2025
- S.2191 has a <u>mismatch</u> between the timing of the CO<sub>2</sub> cuts required and the availability of the advanced technologies needed for large CO<sub>2</sub> reductions
- Reduction requirements for 2015 through 2025 are far ahead of the technologies required to achieve them cost-effectively



## **Average Wellhead Natural Gas Prices**



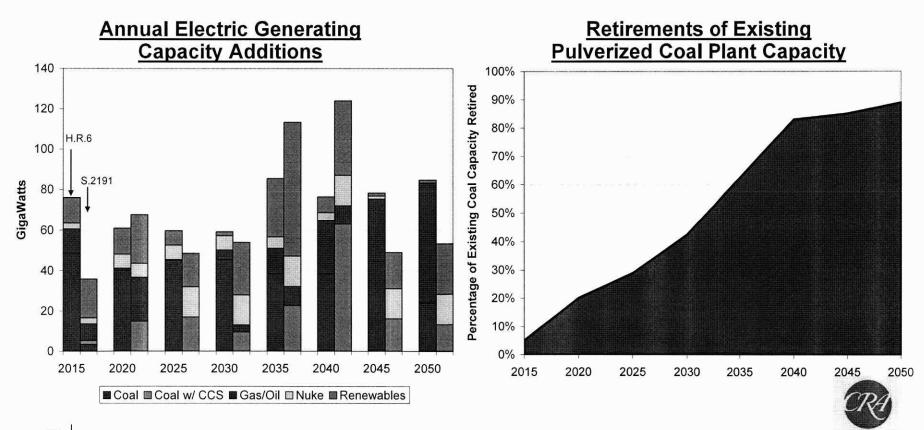
- The requirements for natural gas in the electric sector will be supplied by (1) displacing natural gas use in other sectors and (2) increased domestic production and imports
- The pressure on gas supply is shown by the rapid increase in prices received by natural gas producers
- This rapid, but temporary, increase in natural gas deliveries may be difficult to achieve due to the required increases in drilling and infrastructure
- In the longer term, natural gas use emits too much CO<sub>2</sub> to remain viable as the caps continue to tighten, hence natural gas demand and prices fall below the H.R.6 scenario levels



Summary Results for S.2191

# Electric Generating Capacity Additions and Retirements of Existing Pulverized Coal Plant Capacity

- More than 80% of existing pulverized coal plant capacity will be retired by 2040
- In 2035 and 2040 capacity additions exceed the No Carbon Policy scenario levels in order to replace the retiring coal units with new low/zero carbon generation technologies

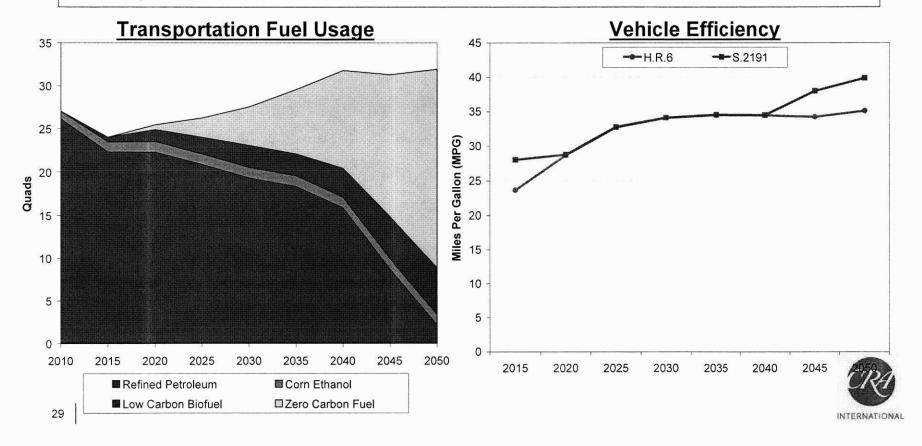


INTERNATIONAL

Summary Results for S.2191

## Transportation Fuel Usage and Vehicle Efficiency

- Zero carbon fuels take over transportation because of the relatively high lifecycle emissions from corn-based ethanol and cost effectiveness relative to low carbon biofuel production
- The reduction in total fuel use in 2015 is caused by the LCFS, which can only be met by a decrease
  in gasoline consumption to allow the limited supplies of low carbon biofuel to meet the averaging
  requirements of the standard
- Average fuel economy is projected to be higher than the CAFE standard in 2015 because of the impact of the LCFS on total motor fuel demand. In 2020-2040, the CAFE standard becomes the limiting factor



## Compliance with LCFS Mandate Explains 2015 Results

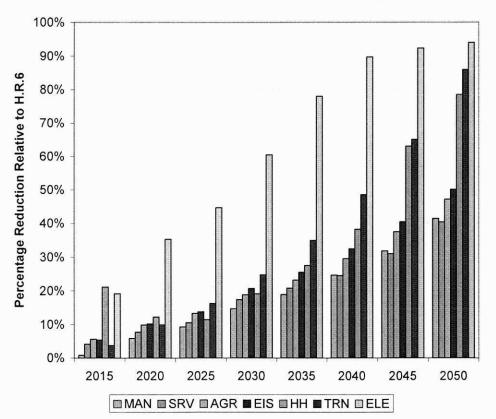
- The LCFS can be met by increasing the quantity of low carbon biofuel or decreasing the quantity of gasoline in the blend
- Corn-based ethanol is likely the only alternative fuel available in large quantities by 2015
- Corn-based ethanol's lifecycle emissions are only 25% below gasoline so that ethanol
  would have to reach an infeasible share of total fuel consumption to satisfy LCFS
- Since the LCFS requirements go beyond what can be accomplished with available low carbon biofuels, gasoline consumption must fall to make the share of low carbon biofuels sufficient to satisfy the LCFS
- Therefore, delivered pump prices (including the price of LCFS credits, if a trading system is created) must rise sufficiently to choke off gasoline demand causing:
  - Reductions in driving (VMT)
  - Demand for increased fuel economy in new cars
- This leads to:
  - Large economic impacts in 2015, which moderate as low/zero carbon fuels with better performance than corn-based ethanol become feasible to produce in adequate quantities
  - Projected fuel economy that is higher than the CAFE standard in 2015



Summary Results for S.2191

## **Emission Reductions by Sector**

(Relative to the H.R.6 Scenario)



- The household (HH) sector's emissions include emissions from personal transportation and residential energy use
- After 2015, the electric sector (ELE) bears the largest emission reduction burden, followed by the household (HH) and transportation (TRN) sectors
- 80%+ emission reductions in household and transportation sectors are only possible because completely new technologies providing zero carbon fuels at reasonable cost are assumed to become available over time
- Households bear the largest burden in 2015 in the cost of driving because of the high price of transportation fuels to satisfy the LCFS

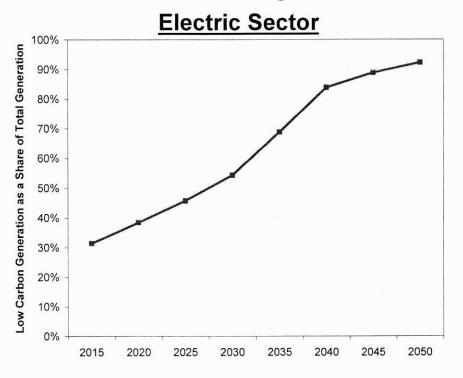
For context, the absolute levels of CO <sub>2</sub> Emissions	(MM metric tons)
projected for each sector in the No Carbon Policy	case are:

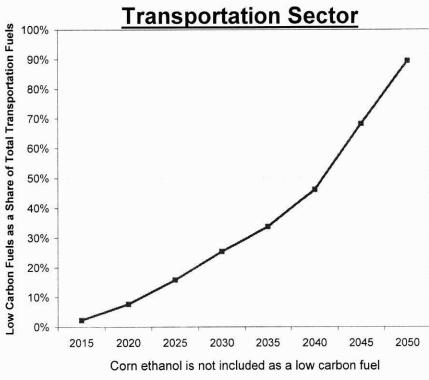
MAN	SRV	AGR	EIS	НН	TRN	ELE
77	173	154	897	1,470	629	2,468



Summary Results for S.2191

# Electric Generation and Transportation Are 90% Decarbonized by 2050





- The deep emission reductions required in 2050 under the S.2191 scenario necessitate nearly complete decarbonization of the electric and transportation sectors
- In sensitivity analyses with more constrained availability or higher costs of low/zero carbon transportation fuels, CO<sub>2</sub> prices and economic impacts in 2050 were found to be much greater



## IV. Appendix and List of Acronyms

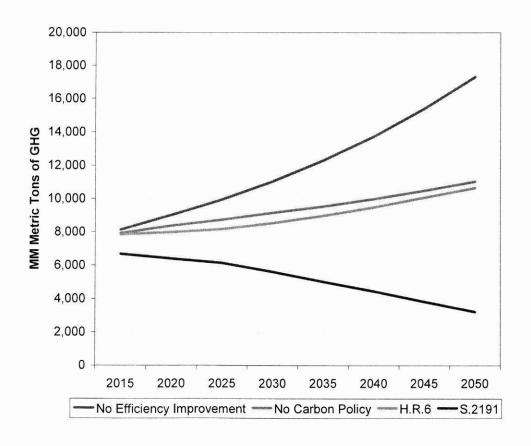


## **Appendix**

- The slides that follow provide more detailed results and assumptions that were referred to in earlier slides, and brief descriptions of MRN-NEEM
- A detailed documentation of the assumptions and the new model features will be provided in a forthcoming report
  - Documentation of the fundamental methodology of MRN-NEEM and of <u>pre-existing</u> model features can be obtained at: <a href="http://www.crai.com/uploadedFiles/RELATING\_MATERIALS/Publications/BC/Energy\_and\_Environment/files/MRN-NEEM%20Integrated%20Model%20for%20Analysis%20of%20US%20Greenhouse%20Gas%20Policies.pdf</a>
  - PLEASE NOTE: the version of the documentation at the above link does not include the key new features of MRN-NEEM that were developed specifically for this analysis, such as:
    - Use of AEO2008 (early release) as a baseline
    - Representation of VMT and MPG in determining total fuel demand
    - Representation of several types of biofuels for transportation
    - Methodology for simulating LCFS and CAFE policies



## **Total US Greenhouse Gas Emissions**



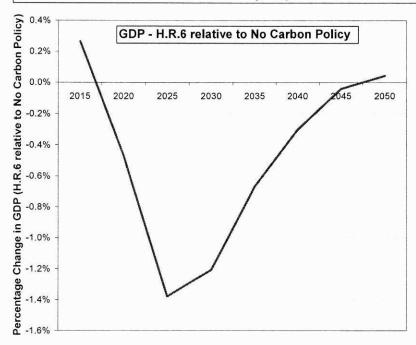
- The No Efficiency Improvement scenario assumes a constant carbon intensity at 2010 levels
- The No Carbon Policy scenario incorporates substantial improvements in carbon intensity over time due to ongoing technological improvements expected to occur even in the absence of H.R.6 and S.2191
- Provisions of H.R.6 produce a noticeable, but relatively small, reduction in emissions
- The S.2191 scenario requires an immediate drop in emissions, followed by a rapidly increasing reduction from the emission levels in the H.R.6 scenario

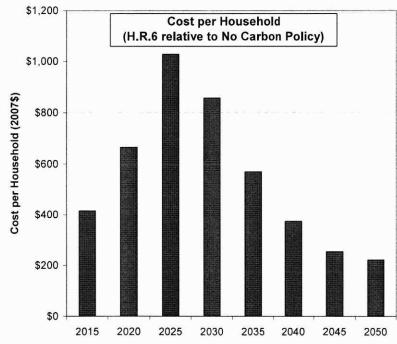


Appendix and List of Acronyms

## Impacts of H.R.6 Alone

- The 2015 results demonstrate that GDP can be an inaccurate indicator of societal costs of a policy
  - Although GDP rises (left chart, 2015) the standard of living for households is down (right chart, 2015)
  - GDP increases in 2015 because of investments required to produce alternative fuels to meet the RFS
  - These investments are not wealth-creating, although they provide emission benefits
  - Consumption and the standard of living are squeezed as resources are diverted to these investments
- CAFE standards cause the deep reductions in GDP seen from 2025 to 2030
  - Alternative fuels are very capital intensive compared to making motor vehicles more efficient





The total cost of H.R.6 is projected to be \$2.0 trillion (present value, 2007\$)



Appendix and List of Acronyms

# CRA's MRN-NEEM Model Is a Well-Documented, Peer-Reviewed State-of-the-Art System

- State-of-the-art treatment of economy-wide and electric sector issues
- Used extensively in prior studies of climate legislation and in development of SO<sub>2</sub>, NO<sub>x</sub> and mercury regulations
- Documented through publications in peer-reviewed literature and open access to assumptions
  - ➤ "Equity and the Kyoto Protocol: measuring the distributional effects of alternative emissions trading regimes." Global Environmental Change 2000
  - ➤ "The Role of Expectations in Modeling Costs of Climate Change Policies," Chapter 18 in Human-Induced Climate Change: An Interdisciplinary Assessment, Cambridge University Press, 2007
  - ➤ Documentation of Scenarios Used in Dr. Anne E. Smith's Testimony of November 8, 2007 before the Senate Environment and Public Works Committee Regarding the Economic Impacts of S.2191: Response to a request by Senator Lieberman dated November 16, 2007
- Used in CRA/EPRI study of California climate policies and by State of California for analyzing implementation alternatives
  - Expert panel created by EPRI reviewed model development and study



## **MRN Overview**

- MRN stands for "Multi-Region National Model"
- A macro-economic model of the entire US economy
  - All economic sectors
  - All consumers
  - Income, consumption, investment and international trade
- Sector detail needed for climate policy analysis
  - 5 energy sectors
  - 6 non-energy industries
  - Household consumption and fuel use
- Runs in 5-year time steps from 2010 through 2050



Appendix and List of Acronyms

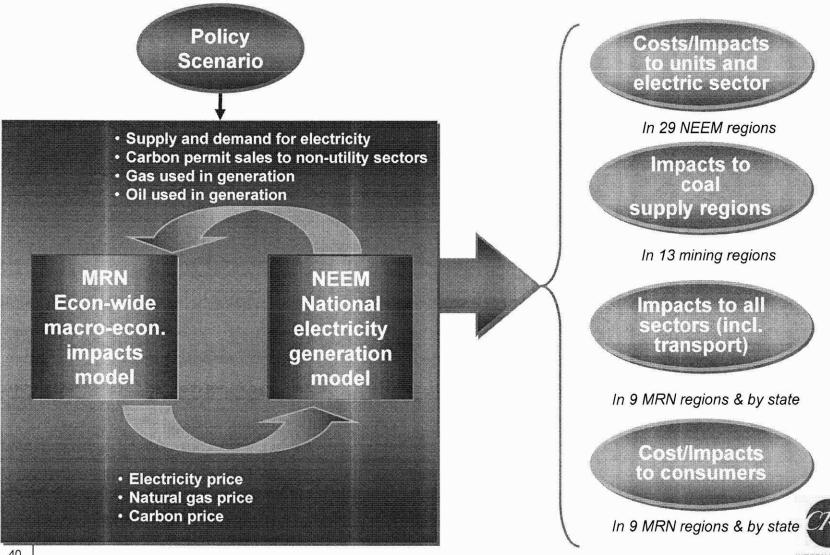
### **NEEM Overview**

- NEEM is a detailed, bottom-up model of the power sector based on individual unit-level data
- Represents separate electricity control regions connected by transmission capacity
- Chooses new capacity to meet anticipated load growth at minimum cost
- Dispatches capacity against a load duration curve to give a realistic representation of need and use of different types of generating capacity
- Bases choices on future fuel prices, environmental constraints, and carbon prices



Appendix and List of Acronyms

## Integration of MRN and NEEM Provides a Unique Capability for Analysis of GHG Policy Impacts



INTERNATIONAL

## **List of Acronyms**

- AEO Annual Energy Outlook
- AGR Agricultural sector
- CAFE Corporate Average Fuel Economy
- CCS Carbon capture and storage
- CDM Clean Development Mechanism
- CMEB Carbon Market Efficiency Board
- CRA CRA International, Inc.
- EIA Energy Information Administration
- EIS Energy-intensive sector
- ELE Electric sector
- GDP Gross domestic product
- GHG Greenhouse gas
- HH Household sector

- H.R.6 Energy Independence and Security Act of 2007
- LCFS Low Carbon Fuel Standard
- MAN Manufacturing sector
- MPG Miles per gallon
- MRN-NEEM the integrated macroeconomic and electric sector model CRA used for this analysis
- OIL Oil sector
- RFS Renewable Fuel Standard
- S.2191 Lieberman-Warner Climate Security Act of 2007
- SRV Commercial/services sector
- TRN Commercial transportation sector
- VMT Vehicle miles traveled



#### Appendix and List of Acronyms

## **New Generation Technology Costs and Characteristics**

All dollar values are in 2007\$

									Cun	ıulativ	e Capa	city L	imits		
Generation Technology	First Available	Overnight Capital Cost <sup>1,2</sup>	Fixed O&M <sup>2</sup>	Variable O&M	Heat Rate	Availability	2010	2015	2020	2025	2030	2035	2040	2045	2050
87	Year	\$/kW	\$/kW-Yr	\$/MWh	MMBtu/MWh	%					GW				
Advanced Coal	2015	\$1,839	\$27.36	\$4.56	8.844	87%	NA	60.0			N	o Limi	its	- 1. 1	
Coal IGCC	2015	\$2,356	\$38.43	\$2.89	8.309	85%	NA 10.0 60.0 No Limits								
	2015	\$4,486	\$48.02	\$5.53	9.713	85%					7	10, 11 <del>10</del> 1944			
	2025	\$3,984	\$48.02	\$5.53	9.713	85%									
	2030	\$3,630	\$48.02	\$5.53	9.713	85%									
Coal IGCC with CCS	2035	\$3,494	\$48.02	\$5.53	9.713	85%	NA	2.0	17.0	47.0	107.0	197.0	287.0	377.0	467.0
	2040	\$3,379	\$48.02	\$5.53	9.713	85%									
	2045	\$3,282	\$48.02	\$5.53	9.713	85%									
	2050	\$3,203	\$48.02	\$5.53	9.713	85%									
Natural Gas Combined Cycle	2010	\$705	\$12.41	\$2.05	7.000	86%		,	e good and a grant of the	N	lo Limi	ts			
Natural Gas Combustion Turbine	2010	\$536	\$10.47	\$3.15	10.842	93%	No Limits								
Nuclear	2015	\$2,862	\$67.47	\$1.61	10.400	90%	NA	3.0	10.0	25.0	40.0	55.0	70.0	85.0	100.0
Wind Turbine <sup>3</sup>	2010	\$1,946	\$30.11	\$1.61	NA	30%	15.0	35.0	55.0	75.0	95.0	115.0	135.0	155.0	175.0
Photovoltaic	2010	\$5,437	\$11.61	\$1.61	NA	19% - 27%				N	lo Limi	ts			
Solar Thermal	2010	\$3,469	\$56.42	\$1.61	NA	23% - 39%	No Limits								
Landfill Gas <sup>4</sup>	2010	\$2,317	\$113.53	\$1.61	13.648	90%	3.0	8.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
	2010	\$2,639	\$76.40	\$8.91	13.000	80%									
Biomass <sup>5</sup>	2020	\$3,195	\$52.87	\$3.12	9.200	80%	1.2	2.5	4.5	9.5	26.5	59.5	99.6	99.6	99.6
	2025	\$3,083	\$52.87	\$3.12	8.911	80%									
Geothermal	2010	\$3,451	\$81.85	\$0.00	NA	65%	No Limits								

<sup>&</sup>lt;sup>1</sup> Excludes interest during construction



<sup>&</sup>lt;sup>2</sup> Costs are for a generic region; regional costs are +/- 4% of these costs

<sup>&</sup>lt;sup>3</sup> There are 3 costs classes of wind based on the terrain; capital costs for Cost Class 2 are 1.6 times higher; 2.4 times higher for Cost Class 3

<sup>&</sup>lt;sup>4</sup> There are 2 costs classes of landfill gas; capital costs for Cost Class 2 are 2.0 times higher

<sup>&</sup>lt;sup>5</sup> The biomass generating technology transforms from its current burning of wood to biomass gasification in 2020

## For Additional Information Contact:

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# Summary of Results – CRA International Analysis of Lieberman-Warner Climate Security Act of 2007 (S.2191)

#### Results in 2007\$

	Units	2015	2020	2030	2040	2050
GDP Loss	(\$Billions, relative to H.R.6)	\$328	\$222	\$233	\$457	\$1,280
GDF Loss	(% loss relative to H.R.6)	1.9%	1.2%	1.0%	1.6%	3.5%
Job Loss	(thousands of job losses)	3,774	3,269	2,393	3,864	7,154
Retail Electricity Prices	(% increase relative to H.R.6)	15.2%	24.5%	35.6%	50.7%	67.2%
Delivered Natural Gas Prices	(% increase relative to H.R.6)	10.9%	18.2%	23.5%	26.8%	90.0%
<b>Cost Per Household</b>	(\$, relative to H.R.6)	\$2,258	\$2,001	\$1,285	\$1,588	\$2,169
Coal Consumption	(Quads in Electric Sector)	18.8	15.5	12.1	9.5	11.2
Natural Gas Consumption	(Quads in Electric Sector)	7.8	8.4	7.1	4.9	2.6
CO <sub>2</sub> Allowance Prices – No Banking	(\$/metric ton of CO <sub>2</sub> )	\$38	\$47	\$68	\$137	\$352
CO <sub>2</sub> Allowance Prices – With Banking	(\$/metric ton of CO <sub>2</sub> )	\$51	\$61	\$89	\$131	\$195

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Dorothy Menasco; Kimberley Pena

Subject: RE: Docket No. 080148 - PCS Phosphate's Filing of Late-Filed Exhibit No. 71

Mr. Taylor.

Thank you for this information. We will place this in Parties Correspondence: DN 02016-08.

Thank you. **Ruth Nettles** Office of Commission Clerk 850-413-6770

From: Al Taylor [mailto:Al.Taylor@bbrslaw.com]

**Sent:** Friday, May 23, 2008 4:20 PM To: Kimberley Pena; Ruth Nettles

Cc: Jay Brew

Subject: RE: Docket No. 080148 - PCS Phosphate's Filing of Late-Filed Exhibit No. 71

The documents in the earlier email were submitted pursuant to, and consistent with, the Chairman's instructions at yesterday's hearing. The note accompanying the filing was for the benefit of the parties and was not intended to be part of the record.

F. Alvin Taylor

BRICKFIELD BURCHETTE RITTS & STONE, PC 1025 Thomas Jefferson St. N.W.

Eighth Floor, West Tower

Washington, DC 20007

202-342-0800 Fax: 202-342-0807 ataylor@bbrslaw.com

From: Filings@psc.state.fl.us [mailto:Filings@PSC.STATE.FL.US]

Sent: Friday, May 23, 2008 4:15 PM

To: Al Taylor

Cc: Kimberley Pena: Ruth Nettles

Subject: FW: Docket No. 080148 - PCS Phosphate's Filing of Late-Filed Exhibit No. 71

Mr. Taylor,

We have received your attached documents. Please note that per e-filing requirements, the e-mail message transmitting the document(s) to be filed is not itself considered a filing. Therefore, documents contained within the text of an e-mail transmission will not be considered filed. Please note that multiple documents may be attached to the same e-mail transmittal. However, any cover letter or certificate of service must be included in the electronic document to which it relates, and shall not be submitted as a separate attachment to the e-mail.

A link to the Commission's e-filing requirements has been included for your convenience. http://www.psc.state.fl.us/dockets/e-filings/

Your filing will need to be revised and resubmitted in order to conform to the above-mentioned e-filing requirements.

Feel free to call our office if you have any questions.

5/27/2008

Dorothy Menasco FPSC Office of Commission Clerk 850-413-6330

From: Al Taylor [mailto:Al.Taylor@bbrslaw.com]

Sent: Friday, May 23, 2008 2:36 PM

To: Filings@psc.state.fl.us

Cc: 'mwalls@carltonfields.com'; 'charles.gauthier@dca.state.fl.us'; 'paul.lewisjr@pgnmail.com'; 'Mike.Halpin@dep.state.fl.us'; 'john.burnett@pgnmail.com'; 'Kelly.jr@leg.state.fl.us'; Jay Brew; 'burgess.steve@leg.state.fl.us'; 'alex.glenn@pgnmail.com'; 'dtriplett@carltonfields.com'; Caroline Klancke; Katherine Fleming; Jean Hartman; Keino Young; 'Ljacobs50@comcast.net'; 'inglishydro@hotmail.com'; 'RobBrinkman@cox.net'

Subject: Docket No. 080148 - PCS Phosphate's Filing of Late-Filed Exhibit No. 71

Pursuant to the discussions at the hearing yesterday, attached are (i) the full, 43-page Summary of Findings of CRA's Economic Analysis of the Lieberman-Warner Climate Security Act, and (ii) the one page Summary of Results of the CRA Analysis of the Climate Security Act. Together, these documents constitute Exhibit No. 71.

a. Person responsible for filing

James W. Brew
Brickfield, Burchette, Ritts & Stone, P.C.
1025 Thomas Jefferson Street, N.W.
Eighth Floor West Tower
Washington, D.C. 20007
Tel: (202) 342-0800
Fax: (202) 342-0807
jwb@bbrslaw.com

- b. Docket No. 080148-EI, In Re: Petition for Determination of Need for Levy Units 1 and 2 Nuclear Power Plants
- c. Filed on behalf of White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate White Springs
- d. Total Pages = 44
- e. Late-Filed Exhibit No. 71 of White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate White Springs (attached as CRA S2191\_April08\_2008\_SummaryTable.pdf and CRA\_NMA\_S2191\_April08\_2008.pdf)

F. Alvin Taylor
BRICKFIELD BURCHETTE RITTS & STONE, PC
1025 Thomas Jefferson St, N.W.
Eighth Floor, West Tower
Washington, DC 20007
202-342-0800
Fax: 202-342-0807

ataylor@bbrslaw.com

FPSC, CLK - CORRESPONDENCE

Administrative Parties Consumer

DOCUMENT NO. 0 2014-08

DISTRIBUTION:

#### **Dorothy Menasco**

From: Filings@psc.state.fl.us

Sent: Friday, May 23, 2008 4:15 PM

To: 'al.taylor@bbrslaw.com'

Cc: Kimberley Pena; Ruth Nettles

Subject: FW: Docket No. 080148 - PCS Phosphate's Filing of Late-Filed Exhibit No. 71

Mr. Taylor,

We have received your attached documents. Please note that per e-filing requirements, the e-mail message transmitting the document(s) to be filed is not itself considered a filing. Therefore, documents contained within the text of an e-mail transmission will not be considered filed. Please note that multiple documents may be attached to the same e-mail transmittal. However, any cover letter or certificate of service must be included in the electronic document to which it relates, and shall not be submitted as a separate attachment to the e-mail.

A link to the Commission's e-filing requirements has been included for your convenience. http://www.psc.state.fl.us/dockets/e-filings/

Your filing will need to be revised and resubmitted in order to conform to the above-mentioned e-filing requirements.

Feel free to call our office if you have any questions.

Dorothy Menasco FPSC Office of Commission Clerk 850-413-6330

**From:** Al Taylor [mailto:Al.Taylor@bbrslaw.com]

**Sent:** Friday, May 23, 2008 2:36 PM

To: Filings@psc.state.fl.us

**Cc:** 'mwalls@carltonfields.com'; 'charles.gauthier@dca.state.fl.us'; 'paul.lewisjr@pgnmail.com'; 'Mike.Halpin@dep.state.fl.us'; 'john.burnett@pgnmail.com'; 'Kelly.jr@leg.state.fl.us'; Jay Brew; 'burgess.steve@leg.state.fl.us'; 'alex.glenn@pgnmail.com'; 'dtriplett@carltonfields.com'; Caroline Klancke; Katherine Fleming; Jean Hartman; Keino Young; 'Ljacobs50@comcast.net'; 'inglishydro@hotmail.com'; 'RobBrinkman@cox.net'

Subject: Docket No. 080148 - PCS Phosphate's Filing of Late-Filed Exhibit No. 71

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#### a. Person responsible for filing

James W. Brew Brickfield, Burchette, Ritts & Stone, P.C. 1025 Thomas Jefferson Street, N.W. Eighth Floor West Tower Washington, D.C. 20007 Tel: (202) 342-0800

Fax: (202) 342-0807

5/23/2008

#### jwb@bbrslaw.com

- b. Docket No. 080148-EI, In Re: Petition for Determination of Need for Levy Units 1 and 2 Nuclear Power Plants
- c. Filed on behalf of White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate White Springs
- d. Total Pages = 44
- e. Late-Filed Exhibit No. 71 of White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate White Springs (attached as CRA S2191\_April08\_2008\_SummaryTable.pdf and CRA\_NMA\_S2191\_April08\_2008.pdf)

F. Alvin Taylor
BRICKFIELD BURCHETTE RITTS & STONE, PC
1025 Thomas Jefferson St, N.W.
Eighth Floor, West Tower
Washington, DC 20007
202-342-0800
Fax: 202-342-0807
ataylor@bbrslaw.com

#### \*\*CLK OFFICIAL DOCUMENT...\*\*

#### **Kimberley Pena**

From:

Kimberley Pena

Sent:

Wednesday, April 23, 2008 8:58 AM

To:

'RobBrinkman@cox.net'

Cc:

Katherine Fleming; Robert Graves

Subject:

FW: Testimony regarding docket #080148 to be presented at Service Hearing in Crystal River

Attachments:

Testimony of Robert W. Brinkman on behalf of the Sierra Club, Suwannee St. John's group

regarding doclet #080148.doc



Testimony of

We have received the email mentioned below. Please note that testimony is not eligible for electronic filing per Commission e-filing requirements. The link to the Commission's e-fling requirements is included for your convenience: http://www.psc.state.fl.us/dockets/e-filings/. This email will be placed in the correspondence file of the docket.

Please feel free to contact me if you have any questions.

Kimberley M. Peña Chief Deputy Commission Clerk Office of Commission Clerk Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 (850) 413-6770

----Original Message----

From: Rob Brinkman [mailto:RobBrinkman@cox.net]

Sent: Wednesday, April 23, 2008 12:54 AM

To: Records Clerk

Subject: Testimony regarding docket #080148 to be presented at Service Hearing in Crystal River

Clerk of the PSC:

The attached remarks will be given at the Service hearing in Crystal River on 4/23/2008 by Robert W. Brinkman on behalf of the Sierra Club Suwannee-St. John's group regarding docket # 080148, they are provided for the record and the benefit of the Public Service Commissioners and staff. Sincerely,

Robert W. Brinkman, Chair Sierra Club Suwannee-St. John's group

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☐ Administrative ☐ Parties ☐ Consumer
DOCUMENTS IN A SECOND
DOCUMENT NO. 12016-08
DISTRIBUTION:
DISTRIBUTION,

#### Clara Leider

From: Sent:

Rob Brinkman [RobBrinkman@cox.net] Wednesday, April 23, 2008 12:54 AM

To:

Records Clerk

Subject:

Testimony regarding docket #080148 to be presented at Service Hearing in Crystal River

Attachments:

Testimony of Robert W. Brinkman on behalf of the Sierra Club, Suwannee St.John's group

regarding doclet #080148.doc



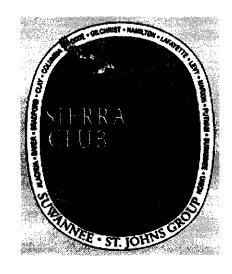
Testimony of ert W. Brinkm

Clerk of the PSC:

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Robert W. Brinkman, Chair Sierra Club Suwannee-St. John's group





## Testimony of Robert W. Brinkman on behalf of the Sierra Club, Suwannee-St. John's group regarding docket # 080148

Mr. Chairman and Commissioners:

Thank you for having this service hearing in the region of the proposed nuclear plants. The Sierra Club Suwannee- St. Johns group has over 2,000 members in 14 counties of North Central Florida including Levy County. Many of these members are served by Progress Energy Florida or are served by potential partners in the proposed nuclear plants. The Sierra Club policy opposes nuclear power because all current plant designs are complex, prone to accidents and have severe security vulnerabilities. Nuclear waste transportation, storage and disposal problems remain unsolved. The Sierra Club will continue to oppose nuclear power unless these deficiencies are eliminated. This has been Sierra Club policy for over 30 years; we are still waiting for progress on addressing these deficiencies.

Florida statutes specify the considerations for a determination of need for a nuclear power plant including fuel diversity, reducing air emissions compliance costs, long term grid reliability reducing over reliance on oil and natural gas and the need for electricity at a reasonable cost. I want to note that I have read the testimony submitted by Peter A Bradford on behalf of White Springs Agricultural Chemical Company and in addition to the many excellent points he made I would like to add some additional thoughts.

Although Progress Energy asserts on its website that nuclear power plants are economical base load generation (<a href="http://www.progress-energy.com/aboutenergy/poweringthefuture\_florida/levy/faq\_whynuclear.asp">http://www.progress-energy.com/aboutenergy/poweringthefuture\_florida/levy/faq\_whynuclear.asp</a>) they also candidly state that were it not for the Renewable Technology and Energy Efficiency Act of 2006 they would not be building any nuclear power plants in Florida (<a href="http://www.progress-energy.com/aboutenergy/poweringthefuture\_florida/levy/faq\_economicfactors.asp">http://www.progress-energy.com/aboutenergy/poweringthefuture\_florida/levy/faq\_economicfactors.asp</a>.) This is significant because if nuclear power is the viable option proponents claim it to be it should not need the subsidies and risk mitigation being provided by federal and Florida law. A determination of need will allow Progress to shift capital costs and risks from its investors to its customers. Between federal loan guarantees and early cost recovery the customer/taxpayer will bear the costs and risks of development of this project.

Traditional theories of capitalism hold that businesses make money by taking risk, the more risk the more profit potential. The current regulatory framework abandons this

fundamental principle and leaves the customer with the risk and the cost but none of the profit. While estimated construction costs have tripled in the time since this project was announced Progress Energy admits that it does not yet have a cost commitment from the major supplier, Westinghouse. How can there be any assurance given that nuclear power would be the most cost effective available resource, as required for a determination of need, when the only certainty with respect to cost is that it will certainly continue to go up?

The history of civilian nuclear power in the United States is replete with instances of cost overruns, schedule delays and even project cancellations after substantial sums have been spent. Progress Energy anticipates the possibility of cost increases of as much as 25% yet both long term and recent experience demonstrate that orders of magnitude increases are more likely. The nuclear industry promises that all those problems have been addressed yet the proposed reactor design has never been built. Indeed the only so-called advanced reactor design currently under construction is in Finland where it is two years behind schedule and almost a billion dollars over budget. Many of the problems experienced in Finland are reminiscent of experiences decades ago; substandard concrete pours, pipes that do not pass inspection and poor quality control.

One of the criteria in a needs determination is grid reliability. On February 26, 2008 the Turkey Point nuclear units were forced off line due to loss of offsite power after a problem at a substation; demonstrating that nuclear power plants are uniquely vulnerable to grid instability caused by relatively minor problems or human errors.

Another criterion for need determination is reduction in emission compliance costs, among these are potential carbon emission costs. But carbon emissions must be considered in a complete fuel cycle context. Besides the extensive energy required to mine and transport uranium it takes a massive amount of electrical energy to process and refine uranium into fuel pellets, this is the upstream fuel cycle. There is also an extensive and long duration downstream fuel cycle including the costs of processing and storing the radioactive waste for many millennia. The total fuel cycle along with the embodied energy in a nuclear power plant make its emissions comparable to that of a natural gas cogeneration plant (figure 4 at http://www.precaution.org/lib/nuke\_ghg\_emissions.060224.pdf).

There are better alternatives to new nuclear power plants both in terms of emissions reductions and costs to consumers. Among these are cogeneration plants, renewables including wind, solar and biomass which are all available here in Florida and energy efficiency and conservation. While renewables and nuclear both require large up front capital investments, in the case of renewables the fuel is free or stable in cost and carbon neutral in the instance of biomass generation.

While we are here today discussing a needs determination isn't it really about a determination of desire rather than need. If Progress Energy Florida customers practiced conservation and used the amount of electricity per capita that my wife and I do we would need less than half the power currently being generated. People do not need pools, nor large plasma screen televisions but our children do deserve a safe and clean future without being saddled with the high cost and lingering dangers of nuclear wastes.

In conclusion the Sierra Club urges the public Service Commission to deny the certificate of need for the proposed nuclear plants in Levy County as you did the FPL Glades coal power plant because the costs and uncertainties are too high. The customer/taxpayer should not bear all of the costs and risks while the investors in Progress Energy Florida reap the rewards.

A final thought, the predictions of the International Panel on Climate Change (IPCC) for the rate of melting ice in the Polar Regions forecasted for 30 years in the future are already beginning. If sea level rises as quickly as suggested by these changes how will Progress Energy move their nuclear power plants to keep them out of the rising Gulf of Mexico? What about a massive hurricane coming onshore with a 30 foot storm surge?

FPSC, CLK - CORRESPONDENCE

Administrative Parties Consumer

DOCUMENT NO. 02014-08

DISTRIBUTION:

#### **Dorothy Menasco**

From: Filings@psc.state.fl.us

Sent: Friday, April 18, 2008 4:56 PM

To: "liacobs50@comcast.net"

Cc: Kimberley Pena; Ruth Nettles

Subject: RE: Docket No. 080148-El Southern Alliance for Clean Energy Proposed List of Issues

Mr. Jacobs.

850-413-6330

We received the e-filing cover page below, however there was no attachment included. Please resubmit information, with attachment(s), to be considered an official filing. Thank you for assistance.

Dorothy Menasco FPSC Office of Commission Clerk

From: ljacobs50@comcast.net [mailto:ljacobs50@comcast.net]

Sent: Friday, April 18, 2008 4:53 PM

To: Filings@psc.state.fl.us

Cc: 'mwalls@carltonfields.com'; 'charles.gauthier@dca.state.fl.us'; 'paul.lewisjr@pgnmail.com'; 'Mike.Halpin@dep.state.fl.us'; 'john.burnett@pgnmail.com'; 'Kelly.jr@leg.state.fl.us'; Jay Brew; 'burgess.steve@leg.state.fl.us'; 'alex.glenn@pgnmail.com'; 'this latter of the field of the field

'dtriplett@carltonfields.com'; Caroline Klancke; Jean Hartman; Katherine Fleming; 'MInimushomines@aol.com';

'KSTorain@potashcorp.com'; Al Taylor

Subject: Docket No. 080148-EI Southern Alliance for Clean Energy Proposed List of Issues

a. Person responsible for filing:

E. Leon Jacobs, Jr.
Williams & Jacobs
1720 S. Gadsden St. MS 14
Tallahassee, Fl 32301
850-222-1246
850-599-9079 fax
ljacobs50@comcast.net

- b. Docket No. 080148-EI Petition for determination of need for Levy Units 1 and 2 nuclear power plants, by Progress Energy, Florida, Inc.
- c. Filed on behalf of the Southern Alliance for Clean Energy, Inc.
- d. Total pages = 4
- e. Proposed List of Issues of The Southern Alliance for Clean Energy; cover letter

4/18/2008

#### Kimberley Pena

From:

Kimberley Pena

Sent:

Thursday, April 17, 2008 9:14 AM

To:

'Rob Brinkman'

Cc:

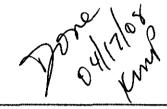
Katherine Fleming

Subject: RE: Petition of Determination of Need for Progress Energy Nuclear generating Units in Levy County Florida dokett

number 080148

Per this email, we will add the Sierra Club as an interested person. I am also forwarding this email to staff counsel to address the petition to intervene.

Kimberley M. Peña Chief Deputy Commission Clerk Office of Commission Clerk Florida Public Service Commission 2540 Shumard Oak Blvd. Tailahassee, FL 32399-0850 (850) 413-6770



FPSC, CLK - CORRESPONDENCE Administrative Parties Consumer

DOCUMENT NO. 02016-08

DISTRIBUTION:

From: Rob Brinkman [mailto:RobBrinkman@cox.net]

Sent: Wednesday, April 16, 2008 9:15 AM

To: Records Clerk

Subject: Petition of Determination of Need for Progress Energy Nuclear generating Units in Levy County Florida dckett number

To Whom it May Concern,

I Robert W. Brinkman would like to be included as an interested Party for docket number 080148. If possible I would like to be listed as representing the Suwannee-St. John's group of the Sierra Club. I am the chair person of that group. I would also like information on the qualifications to be listed as an intervenor in the above petition and recieve notice of all filings via e-mail. My residence is at 915 NE 20th Avenue, Gainesville, Florida 32609-3850. My home phone is 352-337-1757 and I can be reached on my cell phone at 352-318-4934. E-mail correspondence are preferred and can be sent to RobBrinkman@cox.net. Thank you for your attention to this request. Sincerely,

Robert W. Brinkman Chair Sierra Club Suwanee-St. John's group

## WILLIAMS, JACOBS, & ASSOCIATES

ATTORNEYS AT LAW.

1720 S. GADSDEN ST. MS. T4-71777 CENTER
TALLAHASSEE, FL 32301

08 ATR 15 /// 7:15

MOSES WILIAMS, ESQ.

E. LEON JACOBS, JR., ESQ.

April 10, 2008

Ann Cole Director, Office of the Commission Clerk Florida Public Service Commission 2540 Shumard Oak Blvd Tallahassee, Florida 32399-0850

OB APR 16 AMII: 50

RE: Docket No. 080148-EI

Petition for determination of need for Levy Units 1 and 2 nuclear power plants, by Progress Energy, Florida, Inc.

Dear Ms. Cole:

On behalf of the Southern Alliance for Clean Energy, Inc., I have enclosed for filing the Petition for Intervention, consisting of seven pages. I thank you for your attention to this matter.

Sincerely,

/s/ E. Leon Jacobs, Jr.

E. Leon Jacobs, Jr. Attorney for Intervenor

Enclosures

Chk note: This is a duplicate of efiling received on o4/11/08, DN 02810-08

#### BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re; Petition for determination of need for Levy Units 1 and 2 nuclear power plants, by	)	DOCKET NO. 080148-EI FILED: April 10, 2008
Progress Energy, Florida, Inc.	)	1
	)	

## PETITION TO INTERVENE OF SOUTHERN ALLIANCE FOR CLEAN ENERGY

Petitioner, Southern Alliance for Clean Energy ("SACE"), pursuant to Rule 25-22.039, F.A.C., hereby files its petition to intervene in this docket and states:

1. The name and address of the agency affected by this petition is

Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

2. The name and address of the Petitioner is:

Southern Alliance for Clean Energy P.O. Box 1842 Knoxville, Tennessee 37901

3. The name and address of counsel for SACE authorized to receive all notices, pleadings, and other communications in this docket are

E. Leon Jacobs, Jr.
Williams & Jacobs, LLC
1720 S. Gadsden St. MS 14
Suite 201
Tallahassee, Florida 32301
(850) 222-1246
(850) 599-9079 fax
Ljacobs50@comcast.net

- 4. SACE is a non-profit corporation organized under the laws of
  Tennessee. SACE received notice of the Florida Public Service Commission's ("Commission")
  action through its Notice of Commencement of Proceedings for Determination of Need for a
  Proposed Electrical Power Plant issued by the Commission on March 12, 2008.
- 5. The mission of SACE is to promote responsible, economic energy choices that solve global warming problems and ensure clean, safe and healthy communities throughout the Southeast, including the State of Florida. SACE also has staff working on this mission in Tennessee, North Carolina, Georgia and South Carolina.
- 6. SACE has 1,781 members in the State of Florida, dedicated to the promotion of responsible energy choices. There are more than 400 members living in the service area that will be affected by this Commission's deliberations in this proceeding.
- 7. In furtherance of its mission, SACE is deeply involved in advocacy on adoption, implementation, and enforcement of meaningful requirements to evaluate the appropriateness of new electricity capacity. SACE experts have provided testimony in numerous forums in Florida, including before the Governor's Climate and Energy Action Team, the Florida State Legislature, the Department of Environmental Protection and this Commission, on the importance of thoroughly evaluating all cost-effective energy efficiency measures as a means of mitigating or displacing the need for new, non-renewable electricity generation. Indeed, intervention was granted to SACE by the Commission in *In re: Petition to determine need for Polk Unit 6 electrical power plant, by Tampa Electric Company*, Docket No. 070467 EI.
- 8. The Commission will decide in this docket whether it should approve Progress Energy of Florida's ("PEF's") petition for the determination of need for two new nuclear units at a new compound in Levy County, Florida. In making its determination to either grant or deny

the petition, the Commission shall consider whether the proposed unit additions are the most cost-effective means of meeting the demand projected by PEF, the status and the need for electric system reliability and integrity, the need for base-load generating capacity, the need for adequate electricity at a reasonable cost, and whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available.

9. SACE has interests that are of the type this proceeding is designed to protect.

Ameristeel Corp. v. Clark, 691 So.2d 473 (Fla. 1997); Agrico Chemical Co. v.

Department of Environmental Regulation, 406 So.2d 478 (Fla. 2d DCA 1981), reh. denied, 415 So.2d 1359 (Fla. 1982); Florida Home Builders Ass 'n v. Department of Labor and EmploymentSecurity, 412 So.2d 351,353-54 (Fla. 1982). As an advocate for the interests of its members who are PEF consumers, SACE is uniquely poised to assess and enunciate the significant risks to PEF ratepayers associated with the Commission's decision in this case, in particular, related to energy price volatility, and risks resulting from regulatory decisions made based on incorrect and/or inadequate assumptions and factual information related to the construction and operating costs of new nuclear power plants, with new design specifications. SACE is especially equipped to review PEF's assessment of reasonably attainable energy efficiency and conservation measures. Should the Commission embrace and approve the enormous risks associated with building a new nuclear plant of the size and scope requested, it would shift to PEF's ratepayers the obligation to subsidize and support on an asset of unprecedented magnitude, regardless of whether the plant ever begins operation. This decision, in the face of less expensive and readily available improvements in energy efficiency alternatives, is inconsistent with the best interests of ratepayers, and inconsistent with the Legislature's intent in the Florida Energy Efficiency and Conservation Act. Such a step further distances Florida from responsible energy portfolio best practices undertaken in other states in response to the uncertainties of the energy marketplace. The best interests of SACE's members can be served by requiring PEF to meaningfully evaluate alternatives such as energy efficiency, renewable energy, demand-side management and conservation - strategies that are grossly underutilized in Florida's energy portfolio. The pervasive construction of nuclear energy presently anticipated in Florida dramatically reduces the prospect of active markets for demand-side resources.

- 10. The subject matter of this docket is within the SACE's scope of interest and activity, and the relief requested is the type of relief appropriate for SACE to receive on behalf of its members.
- 11. The rights and interests of SACE's members cannot adequately be represented by any other party in this docket, and intervention will not unduly delay or prejudice the rights of other parties.

#### STATEMENT OF DISPUTED ISSUES OF FACT

- 12. SACE opposes the relief requested by PEF because it has identified a number of issues which the Commission should address in this proceeding, for which SACE is of the view that evidence adduced in this proceeding will not favor granting said relief. These issues are:
  - a. Whether PEF has demonstrated the need for new base load generation.
  - b. Whether PEF has demonstrated that the construction of the two new nuclear units represents the most cost-effective alternative to meeting the need for new capacity, and whether the construction of two new nuclear units promotes electric system reliability and integrity. This determination should consider findings of the Federal Energy Regulatory Commission's investigation of Florida's energy grid.
  - c. Whether PEF has demonstrated that it is utilizing reasonably available renewable energy sources and technologies.

- d. Whether PEF has demonstrated that it has reasonably projected the costs of construction of the proposed two new nuclear units, and whether the units will provide adequate electricity at a reasonable cost.
- e. Whether PEF has demonstrated that it has adequately valued and examined external costs associated with construction of the two units, and whether it has adequately valued and examined the prospect of energy efficiency and conservation measures to offset these costs were they to be implemented instead of the construction of the two units in the size and scope proposed by PEF.

#### STATEMENT OF ULTIMATE FACTS

- 13. PEF must meet the requirements of Rules 25-22.080 and 25-22.081, F.A.C. Before certifying the need for the PEF nuclear units as proposed, the Commission must ensure that the proposed unit is needed, and that it is the most appropriate alternative considering all available options. PEF has not reasonably projected the costs of construction of the proposed two new nuclear units.
- 14. The analysis provided by PEF does not fully evaluate cost-effective alternatives, such as energy efficiency and other conservation measures.
- 15. Each of these elements is necessary to protect the interests of affected consumers as required by Florida law.
- 16. The Commission must closely scrutinize the PEF proposal, including cost projections, evaluation of alternatives, evaluation of financial risks, and the conclusion that new capacity is needed in the area to be served by the proposed unit.

#### STATUTES AND RULES THAT REQUIRE THE RELIEF REQUESTED

21. The statutes and rules that require the relief requested by Intervenors include, but are not limited to, Chapter 120, sections 403.519 and 366.80 – 366.85 Florida Statutes, and Rules 25-22.039, 25-22.080, and 25-22.081, F.A.C.

- 22. Rule 25-22.039, Florida Administrative Code, provides that persons whose substantial interests are subject to determination in, or may be affected through an agency proceeding are entitled to intervene in such proceeding.
- 23. The Florida Energy Efficiency and Conservation Act, sections 366.80 366.85 and 403.519, Florida Statutes, provides the Commission with jurisdiction over the need determinations for any provider of electric energy in the State and directs the Commission to ensure that new generating facilities are needed and that they reflect the most cost-effective and least risky alternative.
- 24. Section 403.519(4), Florida Statutes, provides the guidelines which the Commission must take into account in making its need determination. In making its determination, the Commission must consider the need for electric system reliability and integrity, the need for base-load generating capacity, the need for adequate electricity at a reasonable cost, and whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available.
- 25. The Commission's determinations on any or all of these criteria will have a substantial impact on SACE's members, as set out above. The substantial interests of SACE's members are of a type or nature which this proceeding is designed to protect.

#### **RELIEF SOUGHT**

30. WHEREFORE, SACE respectfully requests that the Commission enter an order granting it leave to intervene in this docket and that the Commission take full consideration of the issues raised by SACE in this docket and further requests parties to provide the undersigned with all discovery filed in this docket.

### RESPECTFULLY SUBMITTED this 10<sup>th</sup> day of April, 2008

#### /s/ E. Leon Jacobs, Jr.

E. Leon Jacobs, Jr.
Williams & Jacobs, LLC
1720 S. Gadsden St. MS 14
Suite 201
Tallahassee, Florida 32301
Florida Bar Id. 0714682
(850) 222-1246
(850) 599-9079 fax
Ljacobs50@comcast.net

#### **CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true copy and correct copy of the foregoing was served on this 10<sup>th</sup> day of April via the internet and via US Mail on:

Jennifer Brubaker Florida Public Service Commission Gerald L. Gunter Building 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850	J.R. Kelly / Stephen Burgess Office of Public Counsel c/o The Florida Legislature II I W. Madison Street, Room 8 12 Tallahassee, FL 32399-1400
James W. Brew / F. Alvin Taylor Brickfield, Burchette, Ritts & Stone, P.C. 1025 Thomas Jefferson Street, NW, Eighth Floor, West Tower Washington, DC 20007-5201	Mr. Paul Lewis, Jr. Progress Energy Florida 106 East College Avenue, Suite 800 Tallahassee, FL 32301-7740
John T. Burnett / R. Alexander Glenn Progress Energy Service Company, LLC Post Office Box 14042 St. Petersburg, FL 33733-4042	

This 10th<sup>th</sup> day of April, 2007.

/s/ E. Leon Jacobs, Jr.

FPSC, CLK - CORRESPONDENCE
Administrative Parties Consumer
DOCUMENT NO. <u>020/4-08</u>
DISTRIBUTION:

080148

#### Clara Leider

From:

Minimushomines@aol.com

Sent:

Friday, March 28, 2008 10:16 AM

To:

Records Clerk

Cc:

JanKArtist@aol.com

Subject: Listing as an interested person.

Dear Florida Public Service Commission Clerk,

Please list me in the interested persons category on The Progress Energy Nuclear power plant dockets 080148 and 080149.

Thank You, Bob Krasowski 1086 Michigan Ave. Naples Fl. 34103 Minimushomines@aol.com 239-963-6285

Create a Home Theater Like the Pros. Watch the video on AOL Home.

# BRICKFIELD BURCHETTE RITTS & STONE, PC

WASHINGTON, D.C. AUSTIN, TEXAS

02016-08

March 21, 2008



#### VIA FEDERAL EXPRESS

Ann Cole
Division of Commission Clerk and
Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: Docket No. 080148-EI - In Re: Petition for Determination of Need for

Levy Units 1 and 2 Nuclear Power Plants

Dear Ms. Cole:

Enclosed is a diskette containing a Microsoft Word version of the *Petition to Intervene of White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate – White Springs* which was filed electronically in this docket on March 21, 2008.

If you have any questions, please give us a call.

			Very truly yours,
		CMP	411:0//
		OM	Y, /ANY) (asc)
	90		James W. Brew
	Ö	ECR	F. Alvin Taylor
76. 10.3 10.3	##01 (20%) ##	son Cotonal.	Attorneys for PCS Phosphate – White Springs
	24	OPC	
11 × 11 4	CE EE	RCA	
84 19	30	SCR	
		SGA	
		SEC	
		OTH	

#### 3/18/20083:47:30 PM1age 1 of 1

#### **Ruth Nettles**

From:

**Ruth Nettles** 

Sent:

Tuesday, March 18, 2008 3:47 PM

To:

Katherine Fleming

Subject: RE: 080148

I have corrected the designations for DEP and DCA. I will also add OPC.

**PARTIES** 

Thanks for your help.

Ruth

From: Katherine Fleming

Sent: Tuesday, March 18, 2008 3:44 PM

To: Ruth Nettles Subject: RE: 080148

Yes, you can place OPC on the docket mailing list, but they are not a party yet. Also, I was looking at the party list and noticed that DEP and DCA are listed as parties. They are not parties, but interested persons. Please remove the party designation as to DEP and DCA.

thank you.

From: Ruth Nettles

Sent: Thursday, March 13, 2008 8:53 AM

**To:** Katherine Fleming **Subject:** 080148

Good morning, Katherine.

I noticed yesterday that OPC was listed in the notice of commencement of proceedings. Would you like for OPC to be placed on the docket mailing list?

Thank you for your help.

Ruth

DOCUMENT NUMBER-DATE

02016 MAR 188