

ALGENOL BIOFUELS

HARNESSING THE SUN TO FUEL THE WORLD®

July 3, 2012

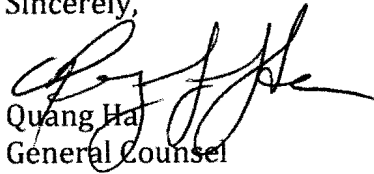
Ms. Ann Cole, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 120015-EI

Dear Ms. Cole:

Enclosed please find an original and 15 copies of the Direct Testimony of R. Paul Woods, for filing in re: Petition for increase in rates by Florida Power & Light Company, Docket No. 120015-EI on behalf of Algenol Biofuels Inc., as an intervenor. Please note that the Amended and Restated Certificate of Service appears at the back of the Testimony.

Sincerely,



Quang Ha
General Counsel

(Not admitted in Florida)

ECO	1
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DOCUMENT NUMBER 120015-EI

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FPSC-COMMISSION CLERK

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**In re: Petition for Increase in Rates by
Florida Power & Light Company.**

Docket No. 120015-EI

Filed July 2, 2012

DIRECT TESTIMONY OF R. PAUL WOODS

ON BEHALF OF

ALGENOL BIOFUELS INC.

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is R. Paul Woods. My business address is 28100 Bonita Grande Drive,
3 Suite 200, Bonita Springs, FL 34135.

4

5 **Q. WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU**
6 **EMPLOYED?**

7 A. I am the Chief Executive Officer of Algenol Biofuels Inc., an industrial
8 biotechnology company, headquartered in Florida.

9

10 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
11 **PROFESSIONAL EXPERIENCE.**

12 A. I graduated from the University of Western Ontario near Toronto, Canada
13 in 1984 with a Bachelor of Science degree in genetics.

14 I am the co-founder and CEO of Algenol. I have led the growth of Algenol
15 from its inception in 2006 to include over 150 employees with laboratories
16 located in Ft Myers, Florida and Berlin, Germany. Under my leadership, Algenol
17 has raised over \$180 million for the advancement of Algenol's proprietary
18 DIRECT TO ETHANOL[®] technology, built a state of the art 50,000 sq. ft.
19 research and development facility and will begin operation of a 36 acre US
20 Department of Energy sponsored Integrated Biorefinery in 2012. Both the
21 research and development facilities and the Integrated Biorefinery are located in
22 Ft. Myers, Florida. I invented DIRECT TO ETHANOL[®] technology in 1984
23 while attending the University of Western Ontario. Patents for the original

1 technology were granted in 2001 (US), 2004 (US), 2005 (Australia) and 2007
2 (Europe).

3 Prior to founding Algenol, I was Chairman and CEO of Alliance Gas
4 Management from 1989 to 1999. I founded and built the natural gas firm and
5 completed an initial public offering in 1997 and sold the business in 1999. My
6 professional experience also includes serving as Chairman, President and CEO of
7 United Gas Management Inc., which I founded in 1997. I sold United Gas
8 Management in 2000 and retired until founding Algenol in 2006.

9
10 **Q. DO YOU HAVE PREVIOUS EXPERIENCE IN FPL REGULATORY**
11 **PROCEEDINGS?**

12 A. None before the Florida Public Service Commission.

13
14 **Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

15 A. I am appearing on behalf of Algenol in my capacity as CEO.

16
17 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
18 **PROCEEDING?**

19 A. My testimony is to expand upon the facts and questions raised by Algenol's
20 Petition to Intervene – the harm that an increase will do to Algenol current and
21 future business as well as providing a revenue generating alternative to a rate
22 increase that Algenol can provide to FPL.

23

1 Q. ARE YOU FILING ANY EXHIBITS IN CONNECTION WITH YOUR
2 TESTIMONY?

3 A. No.

4

5 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

6 A. An unreasonable increase to ratepayers will significantly constrain our
7 company's carefully planned budget, will cause Algenol to raise additional capital
8 faster and limit our ability to expand operations and hire additional employees. In
9 addition, Algenol's ability to pursue large commercial production facilities in
10 Florida, which will create thousands of jobs, will be impaired by an increase in
11 the cost of electricity. Increasing non-controllable costs, such as electricity rates,
12 decreases our ability to attract strategic partners to Florida.

13 In order to support a rate increase, the Commission should require FPL to
14 showed that it explored other alternatives to increasing rates, such as collaborating
15 with companies like Algenol that can offer revenue for CO₂ emitted from FPL
16 power plants. As an example, Algenol's Direct to Ethanol[®] process produces 160
17 gallons of ethanol from one metric ton of CO₂. Our process economics plan is for
18 Algenol to purchase CO₂ for \$30 per metric ton. Where an existing plant like
19 FPL's West County Energy Center (WCEC) could emit over 10 million metric
20 ton per year of CO₂, then the potential revenue to FPL would be over \$300
21 million from just one electricity producing plant. Part of this revenue could offset
22 rate increases being sought by FPL. Cost of CO₂ capture and delivery to Algenol

1 needs to be examined and considered in light of both revenue and environmental
2 costs.

3
4 **Q. PLEASE EXPLAIN THE HARM TO ALGENOL FROM A RATE**
5 **INCREASE.**

6 A. Algenol's intent is to construct our first or one of our first commercial facilities in
7 Florida. Several considerations will factor into those decisions, including the cost
8 of electricity and the ability to work with carbon dioxide emitters to purchase
9 large quantities of the greenhouse gas in order to recycle it into a valuable
10 commodity rather than releasing it into the atmosphere. Successful completion of
11 such a facility will require acceptable utility costs, among other things. Algenol is
12 a commercial customer of FPL in Florida. It is a pre-revenue, start up company
13 with significant facilities in Southwest Florida that require vast amounts of
14 electricity provided by FPL. The consumption of FPL electricity will only
15 increase as Algenol's Integrated Biorefinery operates to full capacity. An
16 unreasonable increase to ratepayers will significantly constrain our company's
17 carefully planned budget, will cause Algenol to raise additional capital faster and
18 limit our ability to expand operations and hire additional employees. In addition,
19 Algenol's ability to pursue large commercial production facilities in Florida,
20 which will create thousands of jobs, will be impaired by an increase in the cost of
21 electricity. The harm to Algenol cannot be quantified.

1 **Q. WHAT DETAILS OF PRIOR FPL MEETINGS WILL YOU PRESENT?**

2 A. I will present non-confidential details from my meeting with current FPL Chief
3 Executive Officer, Eric Silagy, and his project development team on February 16,
4 2009. I will discuss the repeated attempts to follow up with Mr. Silagy, Mr.
5 Martinez, including Ms. Valerie Hnasko. I will also describe attempts to set up a
6 teleconference with Mr. Silagy in August 2009, only to have Mr. Silagy not
7 answer the call and not return any messages.

8

9 **Q. HAS FPL MADE ANY ATTEMPTS TO CONTACT ALGENOL SINCE**
10 **2009?**

11 A. No, not prior to this proceeding. We received an email from Justin Sobol of FPL
12 on June 19, 2012 with a claim that he has not been contacted by Algenol since the
13 February 16, 2009 meeting. Quang Ha and I responded to this e-mail from Mr.
14 Sobol with details about Algenol's repeated attempts to contact senior level FPL
15 personnel.

16

17 **Q. WHAT HAS ALGENOL ACHIEVED SINCE YOUR LAST MEETING**
18 **WITH FPL?**

19 A. Algenol was awarded a \$25 million grant from the US Department of Energy for
20 an integrated pilot-scale bio-refinery in January 2010. Algenol was one of three
21 algae companies to receive this grant, and one of a few Florida companies to
22 receive this grant. Algenol also received in February 2010, an economic incentive
23 award of \$10 million from Lee County, Florida. Algenol also announced in 2010

1 that it was relocating the site of its pilot-scale facility from Texas to Florida. In
2 April 2010, Algenol entered into a joint development agreement with a subsidiary
3 of Valero Energy Services, one of the largest ethanol producers in the country, to
4 non-exclusively collaborate on integrating Algenol's technology with existing
5 Valero facilities. In the summer of 2011, Algenol raised \$90 million of private
6 financing. All of the foregoing was publicly announced and received national and
7 local media attention. None of these important developments seemed to have
8 interested FPL.

9
10 **Q. WHEN WAS THE LAST ATTEMPT YOU MADE TO RE-ENGAGING**
11 **FPL?**

12 A. Although I was very frustrated and disappointed with the lack of interest and
13 respect from FPL in 2009, we attempted contact with FPL in 2010 again to no
14 avail.

15
16 **Q. WHAT ARE THE ASSUMPTIONS BEHIND THE \$300 MILLION OF**
17 **POTENTIAL REVENUE FROM CO₂ FROM WCEC PLANTS?**

18 A. It's very simple. An Algenol facility would be willing to pay \$30 per metric ton
19 of CO₂. If all 10 million metric tons of CO₂ emitted from WCEC in one year
20 could be sequestered and supplied to an Algenol facility, the resulting revenue is
21 \$30 million (\$30/metric ton CO₂ times 10 million metric ton of CO₂). Even if
22 only 50% of the CO₂ could be sequestered and supplied, \$150 million in revenue
23 is very significant. This is just one example for one of FPL's several electricity-

1 generating facilities in Florida. Sequestering CO₂ from FPL's other facilities in
2 Florida and supplying could result in several hundred millions of dollars of
3 revenue to FPL.

4
5 **Q. WHAT ARE OTHER FPL FACILITIES THAT WOULD INTEREST**
6 **ALGENOL?**

7 A. We would require the cooperation of FPL to provide us with CO₂ purity, pressure
8 and process for burning their fuel to know this information. Based on publicly
9 available information and belief, I believe there are several plants of interest,
10 including Martin County and Ft. Myers, to name just a few.

11
12 **Q. WHAT ARE THE CAPITAL REQUIREMENTS AND OPERATIONAL**
13 **COSTS TO FPL TO SEQUESTER AND SUPPLY CO₂ TO AN ALGENOL**
14 **FACILITY?**

15 A. I do not know. An answer to this question would require information and data on
16 FPL's CO₂ purity and plant designs that only FPL can provide. A study that is no
17 more complex than the one FPL performed for its Cape Canaveral Modernization
18 Project would be required.

19
20 **Q. DOES THIS COMPLETE YOUR TESTIMONY?**

21 A. Yes, it does.

22

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**In re: Petition for increase in rates by
Florida Power & Light Company.**

DOCKET NO. 120015-EI

DATED: July 3, 2012

ALGENOL BIOFUELS INC.

AMENDED AND RESTATED CERTIFICATE OF SERVICE

I HEREBY CERTIFY that errors were contained in the Certificates of Service that I filed in connection with the Direct Testimony of R. Paul Woods on the 2nd day of July 2012 and that the certifications in the following paragraph correct such errors and supersede the certifications in such Certificate of Service in its entirety.

I HEREBY FURTHER CERTIFY that (i) an original of the Direct Testimony of R. Paul Woods and 15 true copies thereof the Testimony has been furnished by overnight courier to the Office of the Commission Clerk of the Florida Public Service Commission on this 3rd day of July 2012, (ii) a true copy of the has been furnished by overnight courier to Keino Young of the Florida Public Service Commission on this 3rd day of July, 2012 and (iii) a true copy of the Testimony was furnished by electronic mail to the following parties at e-mail address(es) below such party's name on the 2nd day of July, 2012:

[NAMES AND ADDRESS BEGIN ON FOLLOWING PAGE]

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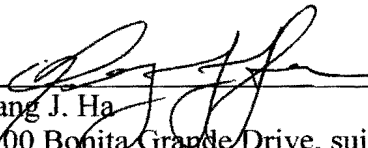
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