Progress Energy

September 9, 2010

VIA HAND DELIVERY

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

Re: *Petition for approval of a second negotiated purchase power contract with Hathaway Renewable Energy, Inc. by Progress Energy Florida, Inc.*; Docket No. 100346-EQ

Dear Ms. Cole:

Please find enclosed for filing on behalf of Progress Energy Florida, Inc. ("PEF") the original and five (5) copies of PEF's responses to Staff's Data Request No. 2 in the above referenced docket.

Thank you for your assistance in this matter. Please call me at (727) 820-5184 should you have any questions.

Sincerely,

John T. Burnett

JTB/lms

cc: Hathaway Renewable Energy

COM ____
APA ____
ECR 1
GCL 1
RAD 3
SSC ____
ADM ____
OPC ____
CLK ____

PROGRESS ENERGY FLORIDA, INC.'S RESPONSES TO STAFF DATA REQUEST NO. 2
DOCKET NO. 100346-EQ

Q1. Please provide a detailed timeline or schedule of events beginning with initial negotiation talks leading up to an agreed and signed contract proposal between Hathaway and PEF and ending with the submittal of the proposed contracts to the FPSC.

Response: Hathaway first contacted PEF regarding a renewable capacity and energy proposal on January 5, 2010. An initial meeting to discuss a possible contract occurred at 8:30 a.m. on January 18, 2010. After this first meeting, negotiations progressed with Hathaway on January 22, 2010 and continued until the contracts were signed on June 22, 2010. During the negotiations, PEF obtained internal approvals including a presentation to our Transaction Review Committee on March 24, 2010 and subsequent acknowledgement from the members of the Transaction Review Committee from March 29, 2010 through April 26, 2010, a presentation to our Risk Management Committee on March 26, 2010 and subsequent approval from the Risk Management Committee and a consent resolution from the PEF Board of Directors on May 5, 2010. Final negotiations and final PEF Legal review occurred from May 10, 2010 through June 18, 2010. All three contracts were executed June 22, 2010. PEF's petition for approval and the executed contracts were filed at the FPSC on July 6, 2010.

Q2. Please describe in detail the schedule of application requirements to be met in order for each facility to qualify for grants from the 2009 American Reinvestment and Renewal Act, as mentioned in Hathaway's response to Q9 of Staff's First Data Request.

Hathaway Response: The application requirements for the Section 1603 Grant in Lieu of Tax Credits can be found at the US Treasury's website:
http://www.ustreas.gov/recovery/1603.shtml

There will be two applications for each 16-20 MW plant, for a total of six applications. One application for each plant will cover the "fuel cell" portion of the plant described by IRC section 48, the second application will cover the "combined cycle" or "hybrid" portion of the plant as described by IRC section 45k for Open Loop Woody Biomass. All six applications are due to the US Treasury by 1 OCT 2011.

Prior to submission of the applications, Hathaway must meet the provisions of Section IV. Property and Payment Elibility (A.) Placed in Service:

> **IV(A.) Placed in Service** Qualified property must be originally placed in service between January 1, 2009, and December 31, 2010, (regardless of when construction begins) or **placed in service after 2010 and before the credit termination date (see below) if construction of the property begins between January 1, 2009, and December 31, 2010.** Qualified property includes

expansions of an existing property that is qualified property under section 45 or 48 of the IRC. Placed in service means that the property is ready and available for its specific use.

There are three ways to meet the requirement for "Beginning of Construction." Those provisions are 1) Self Construction, 2) Construction by Contract, 3) Safe Harbor. Hathaway intends to meet the requirement for Beginning of Construction through the Safe Harbor provision.

> **Safe Harbor.** An applicant may treat physical work of a significant nature as beginning when the applicant incurs (in the case of an accrual basis applicant) or pays (in the case of a cash basis applicant) more than 5 percent of the total cost of the property (excluding the cost of any land and preliminary activities such as planning or designing, securing financing, exploring, or researching). When property is manufactured, constructed, or produced for the applicant by another person, this test must be met by the applicant, not the other person. For the purpose of determining whether an applicant has incurred more than 5 percent of the total cost of the property, the economic performance standards of IRC section 461(h) apply.

Safe Harbor will be attained by the end of calendar year 2010, satisfying the requirement for Beginning of Construction between January 1, 2009 and December 31, 2010.

Lastly, once the application is accepted by US Treasury and within 60 days of October 1, 2011, **Hathaway will have until the Credit Determination Date to bring the plants on line.** The Credit Determination Date for Open Loop Woody Biomass is January 1, 2014, while the Credit Determination Date for Fuel Cell Property is January 2, 2017. Grant proceeds are payable within 60 days of bringing a plant online.

B. Credit Termination Date and Applicable Payment Percentage
The following chart lists the Credit Termination Date and the applicable percentage of eligible cost basis used in computing the payment for each specified energy property.

Specified Energy Property	Credit Termination Date	Applicable Percentage of Eligible Cost Basis
Large Wind	Jan 1, 2013	30%
Closed-Loop Biomass Facility	Jan 1, 2014	30%
Open-loop Biomass Facility	Jan 1, 2014	30%
Geothermal under IRC sec. 45	Jan 1, 2014	30%
Landfill Gas Facility	Jan 1, 2014	30%
Trash Facility	Jan 1, 2014	30%
Qualified Hydropower Facility	Jan 1, 2014	30%
Marine & Hydrokinetic	Jan 1, 2014	30%
Solar	Jan 1, 2017	30%
Geothermal under IRC sec. 48	Jan 1, 2017	10%*
Fuel Cells	Jan 1, 2017	30%**
Microturbines	Jan 1, 2017	10%***
Combined Heat & Power	Jan 1, 2017	10%
Small Wind	Jan 1, 2017	30%
Geothermal Heat Pumps	Jan 1, 2017	10%

Q3. In Staff's First Data Request, PEF's response to Q14 was a percent based from the 2009 Standard Offer Contract. Was there any consideration given to the performance abilities of the type of technology being used to verify the reliability of a capacity factor of 94%?

PEF Response: No, Hathaway has represented to PEF that it can meet a capacity factor of 94% with the proposed technology thereby matching the capacity factor of the avoided unit. In the event that Hathaway cannot obtain a capacity factor of at least 94%, the capacity payment will be reduced. Such a reduction protects PEF's ratepayers from paying for capacity that they did not receive, if Hathaway cannot fulfill its obligations; and, monetarily addresses the verification of reliability.

Q4. Are the security provisions and performance measures of the contracts consistent with PEF's past contracts negotiated with third-party vendors? If not, please explain the reason for any changes.

PEF Response: Yes, the security provisions and performance measures of the Hathaway contracts are consistent with PEF's past QF contracts. As in the past, the security provisions are based on guidelines developed from the cost of replacement capacity and the performance measures are based on the characteristics of the avoided unit.

Q5. PEF's response to Q16 of Staff's First Data Request states that PEF used the 2009 Ten Year Site Plan (TYSP) fuel price forecast instead of the 2010 fuel price forecast as stated on Page 2 of the petition. Why was the 2009 TYSP forecast used instead of the 2010 TYSP forecast?

PEF Response: As stated in PEF's Question #1 response, negotiations began before PEF's 2010 Standard Offer Contract had been fully developed; therefore, the Hathaway contracts were negotiated against the then open, 2009 Standard Offer Contract and the corresponding 2009 fuel forecast which was used to determine PEF's 2009 avoided unit.

Q6. What fuel forecast was used to determine the Total Project Net Benefit/ (Cost) NPV for the contract? Please include in your response the date of the forecast and the entity that developed the forecast.

PEF Response: The contract's Total Project Net Benefit/ (Cost) NPV was calculated using PEF's 2009 TYSP natural gas fuel price forecast. The 2009 TYSP fuel forecast was based on the NYMEX prices as of August 18, 2008 out through 2011; and, the summer 2008 forecasts from third party consultants such as, PIRA and Global Insight, for the year 2012 and beyond.

Q7. PEF's response to Q16 of Staff's First Data Request states that PEF used the 2009 TYSP fuel price forecast to calculate the forecasted fuel prices for natural gas. How did PEF estimate the forecasted fuel prices for the years 2019 through 2038 (the years beyond the 2009 TYSP forecast through the life of the project) and from whom was this forecast obtained?

PEF Response: The estimated fuel prices for 2019 through 2028 were provided by third party consultants such as PIRA and Global Insight. PEF estimated the forecasted fuel prices for the years 2029 through 2038 by assuming an annual increase of 2.25%. This value is based on the annual escalation seen in the final five years of the 2009 TYSP forecast.

Q8. In PEF's responses to Staff's Second Data Request in Docket No. 090537-EQ, PEF provided Staff an Attachment A in response to Q3. Attachment A is also provided in this Data Request. Following the model set forth in Attachment A, please provide staff the appropriate calculations using both the 2009 TYSP fuel price forecast and the 2010 TYSP fuel price forecast. Please use a variance of 15% above and below the forecasted fuel prices instead of the 20% used in Attachment A.

PEF Response: Please see the table below. Six cases are including in the table. There are:

- A – 2009 Standard Offer Contract with the 2009 TYSP fuel forecast
- B – 2009 Standard Offer Contract with a 15% increase to the 2009 TYSP fuel forecast
- C – 2009 Standard Offer Contract with a 15% decrease to the 2009 TYSP fuel forecast
- D – 2010 Standard Offer Contract with the 2010 TYSP fuel forecast

- E – 2010 Standard Offer Contract with a 15% increase to the 2010 TYSP fuel forecast
- F – 2010 Standard Offer Contract with a 15% decrease to the 2010 TYSP fuel forecast

Note that the NPV totals in this spreadsheet differ slightly from previously submitted values because in the previous submission the annual values were rounded to the nearest thousand dollars.

Hathaway Contract 2
Attachment A-F
Dollars in $000

	Total NPV	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
A. 2009 Standard Offer:																											
NPV of Payments To Hathaway	$117,478	$ 6,515	$ 9,666	$ 9,185	$ 8,000	$ 6,808	$ 6,292	$ 5,869	$ 5,516	$ 5,298	$ 5,020	$ 4,804	$ 4,352	$ 4,197	$ 3,985	$ 3,866	$ 3,570	$ 3,347	$ 3,144	$ 2,954	$ 2,781	$ 2,608	$ 2,451	$ 2,303	$ 2,168	$ 2,034	$ 744
NPV of Avoided Capacity Costs	$ 19,735	$ -	$ 772	$ 1,266	$ 1,212	$ 1,160	$ 1,110	$ 1,063	$ 1,017	$ 973	$ 932	$ 892	$ 854	$ 817	$ 783	$ 749	$ 717	$ 687	$ 657	$ 629	$ 603	$ 577	$ 552	$ 529	$ 506	$ 485	$ 193
NPV of Avoided Energy Costs	$ 97,751	$ 5,445	$ 7,975	$ 7,626	$ 6,563	$ 5,484	$ 5,071	$ 4,744	$ 4,479	$ 4,342	$ 4,138	$ 3,992	$ 3,608	$ 3,506	$ 3,348	$ 3,279	$ 3,030	$ 2,849	$ 2,685	$ 2,531	$ 2,391	$ 2,248	$ 2,119	$ 1,997	$ 1,887	$ 1,774	$ 645
NPV of Net Benefit (Cost)	$ 8	$ (1,070)	$ (919)	$ (293)	$ (225)	$ (165)	$ (111)	$ (63)	$ (20)	$ 17	$ 50	$ 80	$ 105	$ 127	$ 146	$ 163	$ 177	$ 188	$ 198	$ 206	$ 212	$ 217	$ 221	$ 223	$ 225	$ 225	$ 94
B. 2009 Standard Offer with 15% Increase in Energy Costs:																											
NPV of Payments To Hathaway	$132,140	$ 7,332	$ 10,863	$ 10,329	$ 8,984	$ 7,631	$ 7,053	$ 6,581	$ 6,188	$ 5,949	$ 5,641	$ 5,408	$ 4,892	$ 4,723	$ 4,487	$ 4,358	$ 4,025	$ 3,774	$ 3,547	$ 3,334	$ 3,140	$ 2,945	$ 2,768	$ 2,602	$ 2,451	$ 2,300	$ 841
NPV of Avoided Capacity Costs	$ 19,735	$ -	$ 772	$ 1,266	$ 1,212	$ 1,160	$ 1,110	$ 1,063	$ 1,017	$ 973	$ 932	$ 892	$ 854	$ 817	$ 783	$ 749	$ 717	$ 687	$ 657	$ 629	$ 603	$ 577	$ 552	$ 529	$ 506	$ 485	$ 193
NPV of Avoided Energy Costs	$112,414	$ 6,262	$ 9,172	$ 8,770	$ 7,548	$ 6,307	$ 5,832	$ 5,456	$ 5,151	$ 4,993	$ 4,759	$ 4,591	$ 4,144	$ 4,032	$ 3,851	$ 3,771	$ 3,484	$ 3,276	$ 3,088	$ 2,910	$ 2,749	$ 2,585	$ 2,437	$ 2,297	$ 2,170	$ 2,040	$ 741
NPV of Net Benefit (Cost)	$ 8	$ (1,070)	$ (919)	$ (293)	$ (225)	$ (165)	$ (111)	$ (63)	$ (20)	$ 17	$ 50	$ 80	$ 105	$ 127	$ 146	$ 163	$ 177	$ 188	$ 198	$ 206	$ 212	$ 217	$ 221	$ 223	$ 225	$ 225	$ 94
C. 2009 Standard Offer with 15% Decrease in Energy Costs:																											
NPV of Payments To Hathaway	$102,815	$ 5,699	$ 8,470	$ 8,041	$ 7,015	$ 5,986	$ 5,531	$ 5,158	$ 4,844	$ 4,647	$ 4,399	$ 4,206	$ 3,811	$ 3,671	$ 3,482	$ 3,374	$ 3,116	$ 2,920	$ 2,742	$ 2,575	$ 2,422	$ 2,271	$ 2,133	$ 2,003	$ 1,885	$ 1,768	$ 648
NPV of Avoided Capacity Costs	$ 19,735	$ -	$ 772	$ 1,266	$ 1,212	$ 1,160	$ 1,110	$ 1,063	$ 1,017	$ 973	$ 932	$ 892	$ 854	$ 817	$ 783	$ 749	$ 717	$ 687	$ 657	$ 629	$ 603	$ 577	$ 552	$ 529	$ 506	$ 485	$ 193
NPV of Avoided Energy Costs	$ 83,088	$ 4,628	$ 6,779	$ 6,482	$ 5,579	$ 4,661	$ 4,310	$ 4,032	$ 3,807	$ 3,691	$ 3,518	$ 3,393	$ 3,063	$ 2,980	$ 2,846	$ 2,788	$ 2,575	$ 2,421	$ 2,282	$ 2,151	$ 2,032	$ 1,911	$ 1,801	$ 1,698	$ 1,604	$ 1,508	$ 548
NPV of Net Benefit (Cost)	$ 8	$ (1,070)	$ (919)	$ (293)	$ (225)	$ (165)	$ (111)	$ (63)	$ (20)	$ 17	$ 50	$ 80	$ 105	$ 127	$ 146	$ 163	$ 177	$ 188	$ 198	$ 206	$ 212	$ 217	$ 221	$ 223	$ 225	$ 225	$ 94
D. 2010 Standard Offer:																											
NPV of Payments To Hathaway	$138,078	$ 5,586	$ 8,757	$ 9,143	$ 8,789	$ 8,611	$ 8,362	$ 7,452	$ 6,656	$ 5,963	$ 5,697	$ 5,461	$ 5,514	$ 5,272	$ 4,993	$ 4,888	$ 4,500	$ 4,258	$ 4,042	$ 3,838	$ 3,651	$ 3,460	$ 3,286	$ 3,121	$ 2,970	$ 2,816	$ 991
NPV of Avoided Capacity Costs	$ 7,989	$ -	$ -	$ -	$ -	$ -	$ 364	$ 595	$ 567	$ 540	$ 514	$ 488	$ 464	$ 444	$ 421	$ 402	$ 381	$ 363	$ 346	$ 330	$ 313	$ 300	$ 285	$ 270	$ 258	$ 246	$ 98
NPV of Avoided Energy Costs	$117,532	$ 4,505	$ 7,042	$ 7,557	$ 7,321	$ 7,253	$ 7,106	$ 6,290	$ 5,581	$ 4,969	$ 4,777	$ 4,610	$ 4,727	$ 4,545	$ 4,320	$ 4,265	$ 3,924	$ 3,725	$ 3,549	$ 3,382	$ 3,229	$ 3,070	$ 2,925	$ 2,787	$ 2,661	$ 2,530	$ 881
NPV of Net Benefit (Cost)	$ (12,557)	$ (1,081)	$ (1,715)	$ (1,587)	$ (1,467)	$ (1,357)	$ (892)	$ (566)	$ (507)	$ (454)	$ (406)	$ (363)	$ (323)	$ (284)	$ (252)	$ (221)	$ (195)	$ (170)	$ (147)	$ (127)	$ (108)	$ (90)	$ (76)	$ (64)	$ (51)	$ (40)	$ (13)
E. 2010 Standard Offer with 15% Increase in Energy Costs:																											
NPV of Payments To Hathaway	$155,708	$ 6,262	$ 9,814	$ 10,277	$ 9,887	$ 9,699	$ 9,428	$ 8,396	$ 7,493	$ 6,708	$ 6,414	$ 6,153	$ 6,223	$ 5,954	$ 5,641	$ 5,528	$ 5,089	$ 4,816	$ 4,575	$ 4,345	$ 4,135	$ 3,920	$ 3,725	$ 3,539	$ 3,369	$ 3,195	$ 1,123
NPV of Avoided Capacity Costs	$ 7,989	$ -	$ -	$ -	$ -	$ -	$ 364	$ 595	$ 567	$ 540	$ 514	$ 488	$ 464	$ 444	$ 421	$ 402	$ 381	$ 363	$ 346	$ 330	$ 313	$ 300	$ 285	$ 270	$ 258	$ 246	$ 98
NPV of Avoided Energy Costs	$135,162	$ 5,180	$ 8,099	$ 8,690	$ 8,419	$ 8,341	$ 8,172	$ 7,234	$ 6,419	$ 5,714	$ 5,494	$ 5,302	$ 5,436	$ 5,226	$ 4,967	$ 4,905	$ 4,513	$ 4,283	$ 4,082	$ 3,889	$ 3,713	$ 3,530	$ 3,364	$ 3,205	$ 3,060	$ 2,910	$ 1,013
NPV of Net Benefit (Cost)	$ (12,557)	$ (1,081)	$ (1,715)	$ (1,587)	$ (1,467)	$ (1,357)	$ (892)	$ (566)	$ (507)	$ (454)	$ (406)	$ (363)	$ (323)	$ (284)	$ (252)	$ (221)	$ (195)	$ (170)	$ (147)	$ (127)	$ (108)	$ (90)	$ (76)	$ (64)	$ (51)	$ (40)	$ (13)
F. 2010 Standard Offer with 15% Decrease in Energy Costs:																											
NPV of Payments To Hathaway	$120,448	$ 4,910	$ 7,701	$ 8,010	$ 7,690	$ 7,523	$ 7,296	$ 6,509	$ 5,819	$ 5,218	$ 4,980	$ 4,769	$ 4,805	$ 4,591	$ 4,345	$ 4,248	$ 3,912	$ 3,699	$ 3,510	$ 3,331	$ 3,166	$ 3,000	$ 2,847	$ 2,709	$ 2,571	$ 2,436	$ 859
NPV of Avoided Capacity Costs	$ 7,989	$ -	$ -	$ -	$ -	$ -	$ 364	$ 595	$ 567	$ 540	$ 514	$ 488	$ 464	$ 444	$ 421	$ 402	$ 381	$ 363	$ 346	$ 330	$ 313	$ 300	$ 285	$ 270	$ 258	$ 246	$ 98
NPV of Avoided Energy Costs	$ 99,902	$ 3,829	$ 5,986	$ 6,423	$ 6,223	$ 6,165	$ 6,040	$ 5,347	$ 4,744	$ 4,224	$ 4,061	$ 3,919	$ 4,018	$ 3,863	$ 3,672	$ 3,625	$ 3,335	$ 3,166	$ 3,017	$ 2,874	$ 2,745	$ 2,609	$ 2,486	$ 2,369	$ 2,262	$ 2,151	$ 749
NPV of Net Benefit (Cost)	$ (12,557)	$ (1,081)	$ (1,715)	$ (1,587)	$ (1,467)	$ (1,357)	$ (892)	$ (566)	$ (507)	$ (454)	$ (406)	$ (363)	$ (323)	$ (284)	$ (252)	$ (221)	$ (195)	$ (170)	$ (147)	$ (127)	$ (108)	$ (90)	$ (76)	$ (64)	$ (51)	$ (40)	$ (13)

Q9. The avoided unit capacity payments in the 2009 standard offer contract appear to be significantly less than the avoided unit capacity payments in the 2010 standard offer contract. Please explain why there appears to be such a significant decrease in payments (i.e. reduction of the costs of the technology).

PEF Response: The 2010 avoided unit capacity payments are less than the 2009 avoided unit capacity payments due to timing and current economic conditions. The 2009 avoided unit is a combustion turbine and has an in-service date of June, 2014. The 2010 avoided unit is a combustion turbine and has an in-service date of June, 2018. The four year difference between the in-service dates reduces the Net Present Value of the payments. In addition, as a result of the current economic conditions, the cost of major materials and labor has decreased.

Q10. In Docket No. 100009-EI, PEF Witness Lyash supported Exhibit JL-3 which included three generation expansion plans that did not include the 2018, 178 MW combustion turbine found in PEF's 2010 standard offer contract. Based on the information provided by PEF witness Lyash, should PEF close its 2010 standard offer contract?

PEF Response: No, PEF should not close its 2010 Standard Offer Contract.

In Docket No. 100009-EI, PEF witness Lyash supported Exhibit JL-3 which included three Levy Nuclear Project, (LNP) ownership scenarios where a cumulative present value of revenue requirements, (CPVRR) was updated in conjunction with a an updated quantitative LNP feasibility analysis as originally filed in Docket No. 090009-EI to determine the feasibility of the LNP in Docket No. 100009-EI. This analysis is consistent with the Company's decision to continue the project on a slower pace with in-service dates for the Levy nuclear units in 2021 and 2022. The reasonableness of the Company decision is at issue in Docket No. 100009-EI and subject to the Commission's determination. The Company will consider that Commission determination in the normal course of its integrated resource planning process leading up to the Company's next Ten Year Site Plan to be filed April 1, 2011.

As such, the 178 MW natural gas combustion turbine as identified in PEF's 2010 TYSP is still valid as the next and only PEF unit available to be avoided under Commission Rule 25-17.250(1) , where the in service date remains June 1, 2018.

Q11. Between the 2009 Standard Offer Contract, the 2010 Standard Offer Contract, and the newly reported avoided Combined Cycle facility, please explain what PEF would consider a reasonable baseline for the contract's avoided unit cost payments.

PEF Response: The 2009 Standard Offer Contract is the appropriate and reasonable baseline for Hathaway's avoided cost payments. As stated in PEF's Question #1 response, negotiations with Hathaway began before the 2010 Standard Offer Contract was fully developed, completed or submitted to the FPSC for approval on April 1, 2010.

Q12. Please complete the table assuming the 2019 Generic 2x1 G CC listed in Exhibit JL-3 of PEF witness Lyash's testimony in Docket No. 100009. Please assume the fuel forecast used in PEF's 2010 TYSP.

PEF Response: The 2019 Generic CC is not valid for a standard offer contract at this time.

Q13. Please complete the table assuming the 2019 Generic 2x1 G CC listed in Exhibit JL-3 of PEF witness Lyash's testimony in Docket No. 100009. Please assume a fuel forecast that is 15 percent above PEF's 2010 TYSP.

PEF Response: The 2019 Generic CC is not valid for a standard offer contract at this time.

Q14. Please complete the table assuming the 2019 Generic 2x1 G CC listed in Exhibit JL-3 of PEF witness Lyash's testimony in Docket No. 100009. Please assume a fuel forecast that is 15 percent below PEF's 2010 TYSP.

PEF Response: The 2019 Generic CC is not valid for a standard offer contract at this time.

Q15. Please complete the table assuming PEF's 2010 standard offer contract. Please assume the fuel forecast used in PEF's 2010 TYSP.

PEF Response:

Hathaway Contract 2
PEF's 2010 Standard Offer

$000	(7)	(8)	(9)	(10)
	Avoided Capacity Payments	Avoided Energy Payments	(7) + (8) Avoided Energy & Capacity Payments	Avoided Cumulative Payments
Units	$	$	$	$
Year				
2010	$ -	$ -	$ -	$ -
2011	$ -	$ -	$ -	$ -
2012	$ -	$ -	$ -	$ -
2013	$ -	$ 5,691	$ 5,691	$ 5,691
2014	$ -	$ 9,617	$ 9,617	$ 15,308
2015	$ -	$ 11,155	$ 11,155	$ 26,463
2016	$ -	$ 11,685	$ 11,685	$ 38,148
2017	$ -	$ 12,514	$ 12,514	$ 50,662
2018	$ 679	$ 13,253	$ 13,932	$ 64,594
2019	$ 1,200	$ 12,681	$ 13,881	$ 78,475
2020	$ 1,236	$ 12,165	$ 13,401	$ 91,876
2021	$ 1,272	$ 11,707	$ 12,979	$ 104,855
2022	$ 1,308	$ 12,167	$ 13,475	$ 118,330
2023	$ 1,344	$ 12,692	$ 14,036	$ 132,366
2024	$ 1,380	$ 14,070	$ 15,450	$ 147,816
2025	$ 1,428	$ 14,622	$ 16,050	$ 163,866
2026	$ 1,464	$ 15,023	$ 16,487	$ 180,353
2027	$ 1,512	$ 16,035	$ 17,547	$ 197,900
2028	$ 1,548	$ 15,950	$ 17,498	$ 215,398
2029	$ 1,596	$ 16,365	$ 17,961	$ 233,359
2030	$ 1,644	$ 16,857	$ 18,501	$ 251,860
2031	$ 1,692	$ 17,362	$ 19,054	$ 270,914
2032	$ 1,740	$ 17,923	$ 19,663	$ 290,577
2033	$ 1,800	$ 18,419	$ 20,219	$ 310,796
2034	$ 1,848	$ 18,972	$ 20,820	$ 331,616
2035	$ 1,896	$ 19,542	$ 21,438	$ 353,054
2036	$ 1,956	$ 20,173	$ 22,129	$ 375,183
2037	$ 2,016	$ 20,732	$ 22,748	$ 397,931
2038	$ 865	$ 7,803	$ 8,668	$ 406,599
Total	$ 31,424	$375,175	$406,599	
NPV 2010$	$ 7,989	$117,532	$125,521	

Q16. Please complete the table assuming PEF's 2010 standard offer contract. Please assume a fuel forecast that is 15 percent above PEF's 2010 TYSP.

PEF Response:

Hathaway Contract 2
PEF's 2010 Standard Offer with 15% Increase in Energy Costs

$000	(7)	(8)	(9)	(10)
	Avoided Capacity Payments	Avoided Energy Payments	(7) + (8) Avoided Energy & Capacity Payments	Avoided Cumulative Payments
Units	$	$	$	$
Year				
2010	$ -	$ -	$ -	$ -
2011	$ -	$ -	$ -	$ -
2012	$ -	$ -	$ -	$ -
2013	$ -	$ 6,545	$ 6,545	$ 6,545
2014	$ -	$ 11,060	$ 11,060	$ 17,604
2015	$ -	$ 12,828	$ 12,828	$ 30,432
2016	$ -	$ 13,438	$ 13,438	$ 43,870
2017	$ -	$ 14,391	$ 14,391	$ 58,261
2018	$ 679	$ 15,241	$ 15,920	$ 74,181
2019	$ 1,200	$ 14,583	$ 15,783	$ 89,964
2020	$ 1,236	$ 13,990	$ 15,226	$ 105,190
2021	$ 1,272	$ 13,463	$ 14,735	$ 119,925
2022	$ 1,308	$ 13,992	$ 15,300	$ 135,225
2023	$ 1,344	$ 14,596	$ 15,940	$ 151,165
2024	$ 1,380	$ 16,181	$ 17,561	$ 168,726
2025	$ 1,428	$ 16,815	$ 18,243	$ 186,969
2026	$ 1,464	$ 17,276	$ 18,740	$ 205,709
2027	$ 1,512	$ 18,440	$ 19,952	$ 225,662
2028	$ 1,548	$ 18,343	$ 19,891	$ 245,552
2029	$ 1,596	$ 18,820	$ 20,416	$ 265,968
2030	$ 1,644	$ 19,386	$ 21,030	$ 286,997
2031	$ 1,692	$ 19,966	$ 21,658	$ 308,656
2032	$ 1,740	$ 20,611	$ 22,351	$ 331,007
2033	$ 1,800	$ 21,182	$ 22,982	$ 353,989
2034	$ 1,848	$ 21,818	$ 23,666	$ 377,655
2035	$ 1,896	$ 22,473	$ 24,369	$ 402,024
2036	$ 1,956	$ 23,199	$ 25,155	$ 427,179
2037	$ 2,016	$ 23,842	$ 25,858	$ 453,037
2038	$ 865	$ 8,973	$ 9,838	$ 462,875
Total	$ 31,424	$431,451	$462,875	
NPV 2010$	$ 7,989	$135,162	$143,151	

Q17. Please complete the table assuming PEF's 2010 standard offer contract. Please assume a fuel forecast that is 15 percent below PEF's 2010 TYSP.

PEF Response:

Hathaway Contract 2
PEF's 2010 Standard Offer with 15% Decrease in Energy Costs

$000	(7)	(8)	(9)	(10)
	Avoided Capacity Payments	Avoided Energy Payments	(7) + (8) Avoided Energy & Capacity Payments	Avoided Cumulative Payments
Units	$	$	$	$
Year				
2010	$ -	$ -	$ -	$ -
2011	$ -	$ -	$ -	$ -
2012	$ -	$ -	$ -	$ -
2013	$ -	$ 4,837	$ 4,837	$ 4,837
2014	$ -	$ 8,174	$ 8,174	$ 13,012
2015	$ -	$ 9,482	$ 9,482	$ 22,494
2016	$ -	$ 9,932	$ 9,932	$ 32,426
2017	$ -	$ 10,637	$ 10,637	$ 43,063
2018	$ 679	$ 11,265	$ 11,944	$ 55,007
2019	$ 1,200	$ 10,779	$ 11,979	$ 66,986
2020	$ 1,236	$ 10,340	$ 11,576	$ 78,562
2021	$ 1,272	$ 9,951	$ 11,223	$ 89,785
2022	$ 1,308	$ 10,342	$ 11,650	$ 101,435
2023	$ 1,344	$ 10,788	$ 12,132	$ 113,567
2024	$ 1,380	$ 11,960	$ 13,340	$ 126,906
2025	$ 1,428	$ 12,429	$ 13,857	$ 140,763
2026	$ 1,464	$ 12,770	$ 14,234	$ 154,997
2027	$ 1,512	$ 13,630	$ 15,142	$ 170,138
2028	$ 1,548	$ 13,558	$ 15,106	$ 185,244
2029	$ 1,596	$ 13,910	$ 15,506	$ 200,750
2030	$ 1,644	$ 14,328	$ 15,972	$ 216,723
2031	$ 1,692	$ 14,758	$ 16,450	$ 233,172
2032	$ 1,740	$ 15,235	$ 16,975	$ 250,147
2033	$ 1,800	$ 15,656	$ 17,456	$ 267,603
2034	$ 1,848	$ 16,126	$ 17,974	$ 285,577
2035	$ 1,896	$ 16,611	$ 18,507	$ 304,084
2036	$ 1,956	$ 17,147	$ 19,103	$ 323,187
2037	$ 2,016	$ 17,622	$ 19,638	$ 342,825
2038	$ 865	$ 6,633	$ 7,498	$ 350,323
Total	$ 31,424	$318,899	$350,323	
NPV 2010$	$ 7,989	$ 99,902	$107,891	

Q18. Please complete the table for the Contract between PEF and Hathaway. Please assume the fuel forecast used in PEF's 2010 TYSP. Also, please ensure that the energy payments are consistent with the parameters described in section 12.1 of the contract.

PEF Response:

Hathaway Contract 2
PEF's 2010 Standard Offer

$000	(7)	(8)	(9)	(10)
	Contract Energy Payments	Contract Capacity Payments	(7) + (8) Contract Energy & Capacity Payments	Cumulative Contract Payments
Units	$	$	$	$
Year				
2010	$ -	$ -	$ -	$ -
2011	$ -	$ -	$ -	$ -
2012	$ -	$ -	$ -	$ -
2013	$ 5,691	$ 1,366	$ 7,057	$ 7,057
2014	$ 9,617	$ 2,342	$ 11,959	$ 19,016
2015	$ 11,155	$ 2,342	$ 13,497	$ 32,513
2016	$ 11,685	$ 2,342	$ 14,027	$ 46,540
2017	$ 12,514	$ 2,342	$ 14,856	$ 61,396
2018	$ 13,253	$ 2,342	$ 15,595	$ 76,991
2019	$ 12,681	$ 2,342	$ 15,023	$ 92,014
2020	$ 12,165	$ 2,342	$ 14,507	$ 106,521
2021	$ 11,707	$ 2,342	$ 14,049	$ 120,570
2022	$ 12,167	$ 2,342	$ 14,509	$ 135,079
2023	$ 12,692	$ 2,342	$ 15,034	$ 150,113
2024	$ 14,070	$ 2,342	$ 16,412	$ 166,525
2025	$ 14,622	$ 2,342	$ 16,964	$ 183,489
2026	$ 15,023	$ 2,342	$ 17,365	$ 200,854
2027	$ 16,035	$ 2,342	$ 18,377	$ 219,231
2028	$ 15,950	$ 2,342	$ 18,292	$ 237,523
2029	$ 16,365	$ 2,342	$ 18,707	$ 256,230
2030	$ 16,857	$ 2,342	$ 19,199	$ 275,429
2031	$ 17,362	$ 2,342	$ 19,704	$ 295,133
2032	$ 17,923	$ 2,342	$ 20,265	$ 315,398
2033	$ 18,419	$ 2,342	$ 20,761	$ 336,159
2034	$ 18,972	$ 2,342	$ 21,314	$ 357,473
2035	$ 19,542	$ 2,342	$ 21,884	$ 379,357
2036	$ 20,173	$ 2,342	$ 22,515	$ 401,872
2037	$ 20,732	$ 2,342	$ 23,074	$ 424,946
2038	$ 7,803	$ 976	$ 8,779	$ 433,725
Total	$ 375,175	$ 58,550	$ 433,725	
NPV 2010$	$ 117,532	$ 20,546	$ 138,078	

Q19. Please complete the table for the Contract between PEF and Hathaway. Please assume a fuel forecast that is 15 percent above PEF's 2010 TYSP. Also, please ensure that the energy payments are consistent with the parameters described in section 12.1 of the contract.

PEF Response:

Hathaway Contract 2
PEF's 2010 Standard Offer with 15% Increase in Energy Costs

$000	(7)	(8)	(9)	(10)
	Contract Energy Payments	Contract Capacity Payments	(7) + (8) Contract Energy & Capacity Payments	Cumulative Contract Payments
Units	$	$	$	$
Year				
2010	$ -	$ -	$ -	$ -
2011	$ -	$ -	$ -	$ -
2012	$ -	$ -	$ -	$ -
2013	$ 6,545	$ 1,366	$ 7,911	$ 7,911
2014	$ 11,060	$ 2,342	$ 13,402	$ 21,312
2015	$ 12,828	$ 2,342	$ 15,170	$ 36,482
2016	$ 13,438	$ 2,342	$ 15,780	$ 52,262
2017	$ 14,391	$ 2,342	$ 16,733	$ 68,995
2018	$ 15,241	$ 2,342	$ 17,583	$ 86,578
2019	$ 14,583	$ 2,342	$ 16,925	$ 103,503
2020	$ 13,990	$ 2,342	$ 16,332	$ 119,835
2021	$ 13,463	$ 2,342	$ 15,805	$ 135,640
2022	$ 13,992	$ 2,342	$ 16,334	$ 151,974
2023	$ 14,596	$ 2,342	$ 16,938	$ 168,912
2024	$ 16,181	$ 2,342	$ 18,523	$ 187,435
2025	$ 16,815	$ 2,342	$ 19,157	$ 206,592
2026	$ 17,276	$ 2,342	$ 19,618	$ 226,210
2027	$ 18,440	$ 2,342	$ 20,782	$ 246,993
2028	$ 18,343	$ 2,342	$ 20,685	$ 267,677
2029	$ 18,820	$ 2,342	$ 21,162	$ 288,839
2030	$ 19,386	$ 2,342	$ 21,728	$ 310,566
2031	$ 19,966	$ 2,342	$ 22,308	$ 332,875
2032	$ 20,611	$ 2,342	$ 22,953	$ 355,828
2033	$ 21,182	$ 2,342	$ 23,524	$ 379,352
2034	$ 21,818	$ 2,342	$ 24,160	$ 403,512
2035	$ 22,473	$ 2,342	$ 24,815	$ 428,327
2036	$ 23,199	$ 2,342	$ 25,541	$ 453,868
2037	$ 23,842	$ 2,342	$ 26,184	$ 480,052
2038	$ 8,973	$ 976	$ 9,949	$ 490,001
Total	$ 431,451	$ 58,550	$ 490,001	
NPV 2010$	$ 135,162	$ 20,546	$ 155,708	

Q20. Please complete the table for the Contract between PEF and Hathaway. Please assume a fuel forecast that is 15 percent below PEF's 2010 TYSP. Also, please ensure that the energy payments are consistent with the parameters described in section 12.1 of the contract.

PEF Response:

Hathaway Contract 2
PEF's 2010 Standard Offer with 15% Decrease in Energy Costs

$000	(7)	(8)	(9)	(10)
	Contract Energy Payments	Contract Capacity Payments	(7) + (8) Contract Energy & Capacity Payments	Cumulative Contract Payments
Units	$	$	$	$
Year				
2010	$ -	$ -	$ -	$ -
2011	$ -	$ -	$ -	$ -
2012	$ -	$ -	$ -	$ -
2013	$ 4,837	$ 1,366	$ 6,203	$ 6,203
2014	$ 8,174	$ 2,342	$ 10,516	$ 16,720
2015	$ 9,482	$ 2,342	$ 11,824	$ 28,544
2016	$ 9,932	$ 2,342	$ 12,274	$ 40,818
2017	$ 10,637	$ 2,342	$ 12,979	$ 53,797
2018	$ 11,265	$ 2,342	$ 13,607	$ 67,404
2019	$ 10,779	$ 2,342	$ 13,121	$ 80,525
2020	$ 10,340	$ 2,342	$ 12,682	$ 93,207
2021	$ 9,951	$ 2,342	$ 12,293	$ 105,500
2022	$ 10,342	$ 2,342	$ 12,684	$ 118,184
2023	$ 10,788	$ 2,342	$ 13,130	$ 131,314
2024	$ 11,960	$ 2,342	$ 14,302	$ 145,615
2025	$ 12,429	$ 2,342	$ 14,771	$ 160,386
2026	$ 12,770	$ 2,342	$ 15,112	$ 175,498
2027	$ 13,630	$ 2,342	$ 15,972	$ 191,469
2028	$ 13,558	$ 2,342	$ 15,900	$ 207,369
2029	$ 13,910	$ 2,342	$ 16,252	$ 223,621
2030	$ 14,328	$ 2,342	$ 16,670	$ 240,292
2031	$ 14,758	$ 2,342	$ 17,100	$ 257,391
2032	$ 15,235	$ 2,342	$ 17,577	$ 274,968
2033	$ 15,656	$ 2,342	$ 17,998	$ 292,966
2034	$ 16,126	$ 2,342	$ 18,468	$ 311,434
2035	$ 16,611	$ 2,342	$ 18,953	$ 330,387
2036	$ 17,147	$ 2,342	$ 19,489	$ 349,876
2037	$ 17,622	$ 2,342	$ 19,964	$ 369,840
2038	$ 6,633	$ 976	$ 7,609	$ 377,449
Total	$ 318,899	$ 58,550	$ 377,449	
NPV 2010$	$ 99,902	$ 20,546	$ 120,448	