

Mail Stop 3561

May 20, 2010

John W. Somerhalder II, Chief Executive Officer  
AGL Resources Inc.  
Ten Peachtree Place NE  
Atlanta, Georgia 30309

**Re: AGL Resources Inc.  
Form 10-K for the Year Ended December 31, 2009  
Filed February 4, 2010  
Form 10-Q for the Period Ended March 31, 2010  
Filed April 27, 2010  
Definitive Proxy Statement on Schedule 14A  
Filed March 15, 2010  
File No. 1-14174**

Dear Mr. Somerhalder:

We have reviewed your filings and have the following comments. You should comply with the comments in all future filings, as applicable. Please confirm in writing that you will do so and also explain to us in sufficient detail for an understanding of the disclosure how you intend to comply by providing us with your proposed revisions. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. After reviewing this information we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Year Ended December 31, 2009

Item 7. Management's Discussion and Analysis of Financial Condition and..., page 22

1. In future filings, please expand your Overview section and your Executive Summary section to discuss known material trends, demands, commitments, events, or

uncertainties that will have, or are reasonably likely to have, a material impact on your financial condition, operating performance, revenues, or income, or result in your liquidity decreasing or increasing in any material way. See Item 303 of Regulation S-K and Release No. 33-8350. Please note the following examples, but realize that these are examples only and not an exhaustive list of the matters you should address:

- Please discuss in greater detail your regulatory strategy, including your rate design proposals, which you state should provide stabilized revenues through decoupling, and your rate cases that include proposals for energy-efficiency programs, which you state should help customers lower the amount of gas used and conserve energy. In this regard, please discuss also why you believe your regulatory strategy will stabilize revenues and conserve energy, how your regulatory proposals will impact you if they are enacted and if they are not enacted, and the steps you will take in response to each possibility.
- Under the heading “Customer growth” on page 22, you state that you believe challenging economic times will continue through 2010 in all of the areas you serve. Please discuss in greater detail the challenging economic times you believe will continue in future periods, the impact on you, and any steps you are taking to deal with this situation.
- Please discuss in greater detail the targeted marketing programs you mention in the penultimate paragraph on page 22, the impact you believe these programs will have on you going forward, the impact you believe these programs will have on you if they are not successful, and any plans you have to deal with either possibility.
- Under the heading “Capital market plan” on page 23, you state that “due to the significant changes in the credit markets,” you “expect that the costs of a renewed credit facility would increase and the duration to be less than the 5-year term under [y]our existing Credit Facility.” Please discuss the significant changes in the credit markets to which you refer and the steps you are taking to deal with these changes, if any.

Item 9A. Controls and Procedures, page 83

Changes in Internal Control over Financial Reporting, page 83

2. We note your statement that there were no changes in your internal control over financial reporting “identified in connection with the above-referenced evaluation by management of the effectiveness of [y]our internal control over financial reporting,” which occurred during the fourth quarter ended December 31, 2009, that have materially affected, or are reasonably likely to materially affect, your internal control

over financial reporting. In future filings, please do not qualify your statement that there were no changes to your internal control over financial reporting that occurred during the period covered by the report that have materially affected, or are reasonably likely to materially affect, your internal control over financial reporting. Also, please confirm, if true, that without qualification there were no changes to your internal control over financial reporting that occurred during the fourth quarter ended December 31, 2009 that have materially affected, or are reasonably likely to materially affect, your internal control over financial reporting.

Exhibit 10.10

3. We note that you have incorporated by reference into your annual report as Exhibit 10.10 the Credit Agreement dated as of September 30, 2008, which was filed as Exhibit 10.1 to your current report on Form 8-K on October 1, 2008. In the Table of Contents to that Credit Agreement, it appears that the agreement contains certain exhibits, Exhibits A through F, which you did not file with the Credit Agreement or elsewhere. Please file an amended current report on Form 8-K that includes these exhibits to the Credit Agreement or tell us why it is not appropriate for you to do so.

Definitive Proxy Statement on Schedule 14A

Compensation Discussion and Analysis, page 36

4. We note under the heading “Competitive Market Information” on page 37 that for 2009 you benchmarked components of base salary, target annual incentive awards, and long-term incentive opportunities for each named executive officer’s overall compensation against Towers, Perrin, Forster & Crosby, Inc.’s Energy Industry Services Compensation Database, which included 85 energy services companies, and against a peer group of 13 comparably sized natural gas providers. Please provide for us, and confirm you will disclose in future filings, the components of the benchmarks you identified pursuant to Item 402(b)(2)(xiv) of Regulation S-K. For guidance, please refer to Question 118.05 under the heading “Regulation S-K” in the Division of Corporation Finance’s Compliance and Disclosure Interpretations (July 3, 2008).

Determining Executive Compensation, page 37

5. Please clarify for us, and confirm you will disclose in future filings, whether your chief executive officer met with representatives of Towers, Perrin, Forster & Crosby, Inc. regarding his compensation or the compensation of other named executive officers and identify the members of management with whom Towers Perrin works, if any. Also, please tell us, and confirm you will disclose in future filings, whether your compensation committee directly engaged Towers Perrin, whether Towers Perrin provided any additional services to you or your affiliates, and describe in greater detail the nature and scope of Towers Perrin’s assignment and the material elements

of the instructions or directions given to this consultant regarding the performance of its duties. See Item 407(e)(3)(iii) of Regulation S-K.

6. We note that your compensation committee retained Frederic W. Cook & Co., Inc. in mid-2009 to assist the compensation committee in revising continuity agreements, updating your benchmarking practices, and designing the 2010 incentive programs. Please tell us, and confirm you will disclose in future filings, whether F.W. Cook reviewed or provided any recommendations regarding the compensation of your named executive officers for the year ended December 31, 2009. If so, please explain to us in greater detail, and confirm you will disclose in future filings, the nature and scope of the consultant's assignment and a description of the material elements of the instructions or directions given to this consultant regarding the performance of its duties. See Item 407(e)(3)(iii) of Regulation S-K.

2009 Executive Compensation, page 41

7. You state that your executives' base salary increases for 2009 were based on performance and, in some instances, to bring salaries to a more competitive level. For each executive officer, please explain to us, and confirm you will disclose in future filings, the amount of base salary that was increased based on performance and the amount increased based on bringing the salary to a more competitive level. Also, because you state that you increased your officers' base salaries, in part, due to performance, it is unclear whether the officers' base salaries are established or adjusted by obtaining certain objective financial results or whether each executive's salary determination is completely subjective. If certain financial results are quantified to establish or adjust base salaries, please specify these results for us and confirm you will disclose them in future filings. See Item 402 (b)(2)(v) of Regulation S-K. If financial results are not quantified, please explain the "performance" of each executive officer that justified each salary increase in 2009.

Annual Incentive Goals and Performance Outcomes, page 43

1. Corporate Measure, page 43

8. You state that your 2009 Plan EPS target for your corporate measure was \$2.75 and your actual Plan EPS was \$3.13, which resulted in a 2009 corporate payout of 200%. In the last paragraph on page 39, you state that incentive awards may range from between 0% and 200% based on actual performance as compared to the target performance. Please explain to us, and confirm you will disclose in future filings, how you determined that the actual Plan EPS of \$3.13 resulted in the maximum payout of 200%. Also, please provide the threshold Plan EPS amount.

2. Business Unit Measures, page 45

9. Please tell us, and confirm you will disclose in future filings, how you decided the O&M expense goal amounts you included in your table on page 47 for John W. Somerhalder II, Andrew W. Evans, Henry P. Linginfelter, and Paul R. Shalanta.
10. You state that the “Other” column in the table on page 45 relates to each executive’s personal goals based upon his area of responsibility that include non-financial measures pertaining to key performance areas such as safety, customer service, and progress on strategic projects. Please tell us, and confirm you will disclose in future filings, each officer’s personal goals, how you measured whether each officer achieved those goals for 2009, and how each officer’s achievement of his goals corresponded to his payout.

3. Individual Measures, page 47

11. We note that individual performance measures are subjective, but please provide for us, and confirm you will disclose in future filings, the “manner in which [each] executive accomplishe[d] his work during” 2009 that caused you to award the individual performance measures listed in the table on page 48.

Determination of Long-term Incentive Awards, page 49

12. You state that the long-term incentive grants in 2009 were selected based on the impact each type of award has on shareholder value creation, executive motivation and retention, competitive practice, and balancing the cost of equity awards and the projected impact on shareholder dilution. Based on these and any other material factors, please explain to us, and confirm you will disclose in future filings, why you decided it was appropriate to award the specific amounts of long-term incentive grants to each executive officer in 2009.

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Please respond to our comments within 10 business days, or tell us by that time when you will provide us with a response. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

John W. Somerhalder II  
AGL Resources Inc.  
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In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filings or in response to our comments on your filings.

Please contact John Fieldsend, Attorney-Adviser, at (202) 551-3343 or me at (202) 551-3725 with any questions.

Sincerely,

H. Christopher Owings  
Assistant Director