



July 23, 2018

**By Hand Delivery**

Ms. Lora W. Johnson,  
CMC Clerk of Council  
Room 1E09, City Hall  
1300 Perdido Street  
New Orleans, LA 70112

In Re: 2018 TRIENNIAL INTEGRATED RESOURCE PLAN OF ENTERGY NEW ORLEANS, INC. PENALTY MECHANISMS (Docket No. UD-17-03)

Dear Ms. Johnson,

Please find enclosed an original and three (3) copies of the Alliance for Affordable Energy's comments in the above-referenced docket. Please file the attached communication and this letter in the record of the proceeding and return one time stamped copy to our courier, in accordance with normal procedures. If you have any questions, please do not hesitate to contact me.

Thank you for your time and attention.

Sincerely,

Logan A. Burke  
Executive Director  
Alliance for Affordable Energy

RECEIVED  
JUL 23 2018

BY:

July 6, 2017, Supplemental and Amending Application of Entergy New Orleans, Inc. for Approval to Construct New Orleans Power Station and Request for Cost Recovery and Timely Relief, Council Docket UD-16-02

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**BEFORE THE COUNCIL OF THE CITY OF NEW ORLEANS**

**RE: 2018 TRIENNIAL INTEGRATED  
RESOURCE PLAN OF ENTERGY  
NEW ORLEANS, INC.**

**DOCKET UD-17-03**

**The Alliance for Affordable Energy's comments on Optimal's preliminary Demand Side  
Management Potential Study Results**

The Alliance appreciates this opportunity to provide feedback and comments at this stage of Optimal's Demand Side Management (DSM) Potential study. Thus far, we are pleased to see robust results as a result of thoughtful study development, including input from local practitioners. Many of our preliminary thoughts on the first round of data and results are related to how Optimal's information will be incorporated into the optimization modeling, and how it will be treated by the utility in comparison to Entergy's own DSM study. While we have not seen any results from Entergy's (Navigant) Integrated Resource Plan study, prior analysis by Navigant was filed as an attachment to Entergy New Orleans' July 6, 2017 application for approval for a peaking power plant<sup>1</sup>. From this prior work, we believe that there is a reasonable expectation that Navigant's study will provide differing results from The Council's (Optimal's) Study. The Alliance is interested in how the Optimal interim results will inform Navigant's study. Finally, we are interested in how any differences between the two studies may be reconciled. Comments and questions related to the appropriate integration and handling of the different potential studies are directed to both Optimal and the Council's Advisors.

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<sup>1</sup> July 6, 2017, Supplemental and Amending Application of Entergy New Orleans, Inc. for Approval to Construct New Orleans Power Station and Request for Cost Recovery and Timely Relief; Council Docket UD-16-02.

In addition, the Alliance expects some of the information requested here will be provided in the next set of Optimal's deliverables. We understand there are practical reasons this information has not yet been provided.

**Recommendations:**

- 1) For the development of final inputs to the IRP, historically, three levels of DSM programs are provided, based on varying assumptions. The Alliance recommends, alongside the existing 100% incentive level "max achievable" that is described in the materials provided thus far, that two additional levels be modeled. An incentive level that provides 50% of the cost of the measure (with the exception of low income incentives which would remain at 100%), and one level that follows the Council's efficiency target schedule that reaches 2% energy savings by increasing 0.2% annually, including program composition to reach the target.
  
- 2) While it is understood that New Orleans has particularly complex water utility issues, it is not the only city with a water utility. We believe that transferable savings estimates exist from these other jurisdictions that can be included in the Optimal analysis as a proxy. For example, energy savings for the water treatment portion the Sewer and Water Board's responsibilities, from measures like water leakage reduction. While it may be outside Optimal's scope to robustly analyze the potential savings for each of the three "arms" of the water utility (drinking water, sewerage, and drainage), we also know there would be savings lost if this DSM study dismisses the city's largest energy user. There are individuals at the Sewerage and Water Board with a mandate to look for improvements in the system like efficiency and coordination with these departments would be of great value to every citizen. We are not suggesting voluminous primary research be conducted, but some information from other jurisdictional energy/water savings would be useful.

- 3) The Alliance affirms, if there are particulars in the New Orleans Technical Resource Manual (TRM) that Optimal believes are either not appropriate to use, or that give rise to unusual results, that it is acceptable to put forward Optimal's own assumptions, with analysis and reasoning. The TRM is intended to be a "living document" and is only in its first year of usage. We encourage and request that Optimal identify whether and where they've made replacement suggestions or not, and that they identify values in the TRM that potentially require closer examination. For example, where the New Orleans TRM describes a baseline ground-water temperature at 70 degrees or more, a data point which fully removes the viability of certain water heating measures, the Alliance recommends Optimal provide a note in the DSM study that highlights this detail.
  
- 4) During the Stakeholder meeting held in Council Chambers on July 13<sup>th</sup>, Optimal was made aware that the existing Energy Smart program is currently receiving a considerable amount of savings in the residential program with duct sealing measures, while this program does not appear in Optimal's preliminary results top 10 "savers". We recommend Optimal look at the Annual Evaluation, Measurement, and Verification from the most recent Energy Smart program year to include valuable on-the-ground information. In addition, a comparison of the measures that are deemed top savers should be identified by Entergy and Aptim (the Energy Smart Third Party Administrator) for evaluation for Program Year 9 (2019). Where there are opportunities for significant savings in programs that may be currently under-performing, Energy Smart has an opportunity to be responsive to the analysis that is being conducted in the IRP. We are not suggesting the entire program year 9 design be eliminated in favor of Optimal/Navigant's identified top 10 saving programs, but where programs underachieve in relation to the Council's targets, this information may be valuable in providing both the utility and their TPA a path to meeting the stated goals.

- 5) The Alliance would like to highlight for the project team that a significant portion of “major equipment” (HVAC systems, refrigerators, washer/dryers, dishwashers, hot water heaters, etc.) in New Orleans homes were installed between 2006 and 2008 and may be nearing the ends of their useful life. There is likely a substantial opportunity for equipment replacement over the next 3-5 years.

**Questions responsive to the preliminary Optimal/ ACEEE DSM potential study results, provided on July 12, 2018**

**Provision of More Detailed Measure and Program Data.**

- Please provide full characterizations of all measures
  - Optimal should provide their model’s input tabs or a version of their model, though if demand response (DR) measures were not modeled in Optimal’s tool those characterizations would need to be provided separately.
  - Please describe how non-resource benefits were estimated and applied.
  - For which measures were values other than those in the TRM used? For these measures, why were different values used?
  - For replace at failure (ROF)/lost opportunity measures, what were the basis/source for the not complete factors, i.e., how, for each year, were the percentage of units already meeting efficient measure criteria estimated?
- Please provide details on the measure penetration and DR participation rates used in the analysis
  - Were the Delphi penetration rate estimates used directly by Optimal or further modified? If so, how?
  - How were DR measure penetrations and event participation rates modeled?
  - How were measures grouped under the broader Adoption Curve Scenario?
  - Provide assumed annual Residential and C&I new construction start data. Units for Residential, with SF and MF data provided separately, and square footage additions for C&I by building type.
- Please provide cumulative and annual participation numbers (quantities), costs, and savings outputs for each measure and Program
  - Optimal could provide their model’s output tabs or a version of their model, though if demand response (DR) measures were not modeled in Optimal’s tool, these should be provided separately.
  - Please provide residential and low-income program savings separately.
  - Please provide DR costs and savings separately.

**Integration/Comparison with Entergy Potential Assessment**

- How will the results, including interim results, of the Optimal study be used to inform the Entergy Potential Assessment?
- Conversely, how will the results, including interim results, of the Entergy study be used to inform the Optimal Potential Assessment?
- How, if at all, will the Advisors reconcile differences in measure and program costs, savings, non-resource benefits assumptions, and savings between the two studies?

#### **Comments/Questions on Economic and Max Achievable Results (Excel file)**

- What does the Residential “ElecTotal” end use comprise?
- What end use category includes Conservation Voltage Reduction (CVR)?
- What end use category includes Residential lighting?
- How were competing/overlapping measures treated?
- Why does economic potential fall over time?
- How were measures with BCRs of less than 1.0 treated? Were all such measures excluded, or was some threshold of less than 1.0 used? Please provide a list of all measures that were included in the analysis, but that were excluded from the estimate of Economic potential.
- For the maximum achievable results, were 100% incentives assumed for all measures?

#### **Comments/Questions on Measure Level Information (Excel file)**

##### **Overall**

- Why are no early retirement measures listed? Though, we note that there are some Residential direct install lighting measures included.
- There do most (all?) Residential and C&I “(Heating)” measures have “n/a” in the TRC and \$/kWh columns, but the “(Cooling)” version of these measures have values in these two columns? Are the combined heating and cooling BCRs and \$/kWh just listed for the “(Cooling)” measures?
- How, if at all, were differences in operating hours and costs addressed by building type, e.g., schools vs. hospitals and single family vs. multifamily?
- What assumptions were made as to which distribution lines would benefit from CVR, or was it assumed that the average CVR savings fraction of 2% applied to all sales?
- Were baselines for measures always assumed to be code or the minimum federal standard? For standards covered measures, there is almost always a distribution of efficiencies above the federal minimum.
- What federal standards not currently in effect, were assumed to be effective over the 2018-2037 analysis timeframe?
- What was the assumed baseline for screw-in LEDs? Incandescent or halogen lamps, or some blended average?
- How was the 2020 EISA general service lamp sales prohibition modeled? There are 2020 Residential LED measures with a two-year measure life and C&L measures with a 3.4-year measure life? Is the latter some blended average as there is no install year specified in the C&I screw-in LED measure name?

- Why is the Mini Split Ductless HP BCR so much lower for C&I (0.3) than for Residential DMSHP (5.2-6.0)?
  - Were savings levels/efficiencies above ENERGY STAR considered? For example:
    - Heat pump dryers have a considerably higher % savings than the 21% listed
- Residential Measures**
- Were larger non-resource benefits assigned to low-income measures? If so, wouldn't they have higher TRC BCRs? Are any of the listed measures specific to low-income housing?
  - ASHP QI is the largest savings Residential measure, yet efficient ASHP does not make the Residential top ten list of savings measures. Does QI ASHP comprise a new, efficient ASHP with quality installation (QI)? Does QI include duct sealing?
  - The savings fraction for certain measures seem low:
    - Central AC (19%) – what was the assumed efficient SEER?
    - Duct sealing (5-10%) - was Aroseal considered? Especially considering E/S dependence on duct sealing.
    - Efficient New Homes (35-37%) – What code and/or construction practices are assumed as baseline? What heating/cooling/DHW systems and fuels are assumed as baseline?
  - Conversely, some savings fractions seemed high:
    - Water heater pipe insulation (60%).
    - Water heater jacket (28%) – is this for existing or new water heaters?

**C&I Measures**

- Were C&I LED troffers with integrated controls included? Is that the “Int Ltg Control” measure?
- How was the savings estimate of 21% for Industrial Process derived?
- Were ROF/lost opportunity and direct install/retrofit lighting measures characterized separately?
- Was the cool roof savings (32%) applied equally to high rise and to low rise C&I buildings?
- How were water and waste water treatment savings modeled, including storm and flood control measures?

**Comments/Questions on Demand Response Materials**

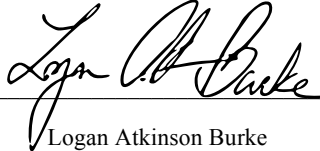
**Overall**

- See above re: measure characterizations and outputs
- Please describe how the Residential peak time rebates and critical peak pricing programs would be implemented, i.e., what rate structures would be implemented.
- What Residential and C&L measures are assumed to be subject to direct load control (DLC)? CAC, pool pumps, hot water equipment, etc.?
- Please provide a copy of the cited FERC national demand response study and the Arcturus study on dynamic pricing study.
- Do the DR costs and BCRs assume any amount of co-delivery with efficiency program activity? If not, why not?

**RE: 2018 TRIENNIAL INTEGRATED RESOURCE PLAN OF  
ENTERGY NEW ORLEANS, INC.**

**Certificate of Service Docket No. UD-17-03**

I hereby certify that I have this 23<sup>rd</sup> Day of July, 2018, served the required number of copies of the foregoing correspondence upon all other known parties of this proceeding, by USPS or electronic mail.



Logan Atkinson Burke  
Alliance for Affordable Energy

**Docket UD-17-03**

**2018 TRIENNIAL INTEGRATED RESOURCE PLAN  
OF ENTERGY NEW ORLEANS, INC.**

**DOCKET NO. UD-17-03**

**Lora W. Johnson**, [lwjohnson@nola.gov](mailto:lwjohnson@nola.gov)

Clerk of Council  
City Hall - Room 1E09  
1300 Perdido Street  
New Orleans, LA 70112  
(504) 658-1085 - office  
(504) 658-1140 - fax  
*Service of Discovery not require*

**Erin Spears**, [espears@nola.gov](mailto:espears@nola.gov)

Chief of Staff, Council Utilities Regulatory Office

**Connolly Reed**, [careed@nola.gov](mailto:careed@nola.gov)

City Hall - Room 6E07  
1300 Perdido Street  
New Orleans, LA 70112  
(504) 658-1110 - office  
(504) 658-1117 – fax

**David Gavlinski**, 504-658-1101, [dsgavlinski@nola.gov](mailto:dsgavlinski@nola.gov)

Council Chief of Staff  
City Hall - Room 1E06



1300 Perdido Street  
New Orleans, LA 70112

**Sunni LeBeouf**, [Sunni.LeBeouf@nola.gov](mailto:Sunni.LeBeouf@nola.gov)

**Bobbie Mason**, [bfmason1@nola.gov](mailto:bfmason1@nola.gov)

Law Department  
City Hall - 5th Floor  
New Orleans, LA 70112  
(504) 658-9800 - office  
(504) 658-9869 - fax

*Service of Discovery not required*

**Norman White**, [Norman.White@nola.gov](mailto:Norman.White@nola.gov)

Department of Finance  
City Hall - Room 3E06  
1300 Perdido Street  
New Orleans, LA 70112  
(504) 658-1502- office  
(504) 658-1705 – fax

#### **ADMINISTRATIVE HEARING OFFICER**

**Hon. Jeffrey S. Gulin**, [judgegulin@gmail.com](mailto:judgegulin@gmail.com)

3203 Bridle Ridge Lane  
Lutherville, MD 21093  
(410) 627-5357

#### **NEW ORLEANS CITY COUNCIL CONSULTANTS**

**Clinton A. Vince**, [clinton.vince@dentons.com](mailto:clinton.vince@dentons.com)

**Presley Reed**, [presley.reedjr@dentons.com](mailto:presley.reedjr@dentons.com)

**Emma F. Hand**, [emma.hand@dentons.com](mailto:emma.hand@dentons.com)

**Herminia Gomez**, [herminia.gomez@dentons.com](mailto:herminia.gomez@dentons.com)

1900 K Street NW  
Washington, DC 20006  
(202) 408-6400 - office  
(202) 408-6399 - fax

**Basile J. Uddo** (504) 583-8604 cell, [buddo@earthlink.net](mailto:buddo@earthlink.net)

**J. A. “Jay” Beatmann, Jr.** (504) 256-6142 cell, (504) 524-5446 office direct,

[jay.beatmann@dentons.com](mailto:jay.beatmann@dentons.com)

c/o DENTONS US LLP  
650 Poydras Street

Suite 2850  
New Orleans, LA 70130

**Walter J. Wilkerson**, [wwilkerson@wilkersonplc.com](mailto:wwilkerson@wilkersonplc.com)

**Kelley Bazile**, [kbazile@wilkersonplc.com](mailto:kbazile@wilkersonplc.com)

Wilkerson and Associates, PLC

650 Poydras Street - Suite 1913

New Orleans, LA 70130

(504) 522-4572 - office

(504) 522-0728 - fax

**Philip J. Movish**, [pmovish@ergconsulting.com](mailto:pmovish@ergconsulting.com)

**Victor M. Prep**, [vprep@ergconsulting.com](mailto:vprep@ergconsulting.com)

**Joseph W. Rogers**, [jrogers@ergconsulting.com](mailto:jrogers@ergconsulting.com)

**Cortney Crouch**, [ccrouch@ergconsulting.com](mailto:ccrouch@ergconsulting.com)

Legend Consulting Group

8055 East Tufts Ave., Suite 1250

Denver, CO 80237-2835

(303) 843-0351 - office

(303) 843-0529 - fax

**Errol Smith**, (504) 284-8733, [ersmith@btcpas.com](mailto:ersmith@btcpas.com)

Bruno and Tervalon

4298 Elysian Fields Avenue

New Orleans, LA 70122

(504) 284-8296 – fax

## **ENERGY NEW ORLEANS, INC.**

**Gary E. Huntley**, 504-670-3680, [ghuntle@entergy.com](mailto:ghuntle@entergy.com)

Entergy New Orleans, Inc.

Vice-President, Regulatory Affairs

1600 Perdido Street, L-MAG 505B

New Orleans, LA 70112

504-670-3615 fax

**Polly S. Rosemond**, 504-670-3567, [prosemo@entergy.com](mailto:prosemo@entergy.com)

Entergy New Orleans, Inc.

Manager, Regulatory Affairs

1600 Perdido Street, L-MAG 505B

New Orleans, LA 70112

**Derek Mills**, [dmills3@entergy.com](mailto:dmills3@entergy.com)

Project Manager  
1600 Perdido Street, Bldg. #505  
New Orleans, LA 70112  
504-670-3527

**Seth Cureington**, 504-670-3602, [scurein@entergy.com](mailto:scurein@entergy.com)

**Keith Wood**, 504-670-3633, [kwood@entergy.com](mailto:kwood@entergy.com)

Entergy New Orleans, Inc.  
Resource Planning  
1600 Perdido Street, L-MAG 505B  
New Orleans, LA 70112

**Tim Cragin** (504) 576-6523 office, [tcragin@entergy.com](mailto:tcragin@entergy.com)

**Brian L. Guillot** (504) 576-2603 office, [bguill1@entergy.com](mailto:bguill1@entergy.com)

**Alyssa Maurice-Anderson** (504) 576-6523 office, [amauric@entergy.com](mailto:amauric@entergy.com)

**Harry Barton** (504) 576-2984 office, [hbarton@entergy.com](mailto:hbarton@entergy.com)

**Karen Freese** (504) 576-4170 office, [kfreese@entergy.com](mailto:kfreese@entergy.com)

Entergy Services, Inc.  
Mail Unit L-ENT-26E  
639 Loyola Avenue  
New Orleans, LA 70113  
(504) 576-5579 - fax

**Joe Romano, III** (504) 576-4764, [jroman1@entergy.com](mailto:jroman1@entergy.com)

**Suzanne Fontan** (504) 576-7497, [sfontan@entergy.com](mailto:sfontan@entergy.com)

**Therese Perrault** (504-576-6950), [tperrau@entergy.com](mailto:tperrau@entergy.com)

Entergy Services, Inc.  
Mail Unit L-ENT-4C  
639 Loyola Avenue  
New Orleans, LA 70113  
(504)576-6029 - fax

### **350 LOUISIANA- NEW ORLEANS**

**Renate Heurich**, (504) 473-2710, [350louisiana@gmail.com](mailto:350louisiana@gmail.com)

1407 Napoleon Ave., #C  
New Orleans, LA 70115

**Andy Kowalczyk**, (504) 676-1047, [a.kowalczyk350no@gmail.com](mailto:a.kowalczyk350no@gmail.com)

1115 Congress St.  
New Orleans, LA 70117

**Benjamin Quimby**, (978) 505-7649, [benjaminquimby1@gmail.com](mailto:benjaminquimby1@gmail.com)  
1621 S. Rampart St.  
New Orleans, LA 70113

#### **ALLIANCE FOR AFFORDABLE ENERGY**

**Logan Atkinson Burke**, [logan@all4energy.org](mailto:logan@all4energy.org)  
**Forest Bradley-Wright**, [forest@all4energy.org](mailto:forest@all4energy.org)  
**Sophie Zaken**, [regulatory@all4energy.org](mailto:regulatory@all4energy.org)  
4505 S. Claiborne Ave.  
New Orleans, LA 70115

#### **AIR PRODUCTS AND CHEMICALS INC.**

**Ernest L. Edwards Jr.**, (504) 450-4226, [ledwards0526@gmail.com](mailto:ledwards0526@gmail.com)  
300 Lake Marina Ave. Unit 5BE  
New Orleans, LA 70124

**Mark Zimmerman**, (610) 481-1288, [zimmermr@airproducts.com](mailto:zimmermr@airproducts.com)  
720 I Hamilton Blvd.  
Allentown, PA 18195-1501  
Fax: (610) 481-2182

**Maurice Brubaker**, [mbrubaker@consultbai.com](mailto:mbrubaker@consultbai.com)  
16690 Swingly Ridge Rd., suite 140  
Chesterfield, MO. 63017

#### **WISZNIA COMPANY INC.**

**Marcel Wisznia**, [mwisznia@wisznia.com](mailto:mwisznia@wisznia.com)  
**Daniel Weiner**, [dweiner@wisznia.com](mailto:dweiner@wisznia.com)  
800 Common St. suite 200  
New Orleans, LA 70112  
(504) 581-1948

#### **U.S. GREEN BUILDING COUNCIL, LOUISIANA CHAPTER**

**Amber Beezley**, [amays@tulane.edu](mailto:amays@tulane.edu)  
**Monica Gonzalez**, [mgonzalez@enterprisecommunity.org](mailto:mgonzalez@enterprisecommunity.org)  
**Casius Pealer**, [casius.pealer@gmail.com](mailto:casius.pealer@gmail.com)  
PO.Box 82572  
Baton Rouge, LA 70884

## SEWERAGE AND WATER BOARD OF NEW ORLEANS

**Luke F. Piontek**, [Lpiontek@roedelparsons.com](mailto:Lpiontek@roedelparsons.com)

**Judith Sulzer**, [jsulzer@roedelparsons.com](mailto:jsulzer@roedelparsons.com)

**J. Kenton Parsons**

**Christian J. Rhodes**

**Shelly Ann McGlathery**

Roedel, Parsons, Koch, Blache,

Balhoff & McCollister

8440 Jefferson Highway, Suite 301

Baton Rouge, LA 70809

(225) 929-7033

(225) 928-4925

## LOWER NINE HOUSE OF MUSIC

**Corey G. Dowden**, [yourgreaterway@outlook.com](mailto:yourgreaterway@outlook.com)

1025 Charbonnet St.

New Orleans, LA 70117

(504) 209-8640

## GREEN LIGHT NEW ORLEANS

**Andreas Hoffmann**, [Andreashoffmann@greenlightneworleans.org](mailto:Andreashoffmann@greenlightneworleans.org)

8203 Jeannette St.

New Orleans, LA 70118

(504) 324-2429

## THE WATER COLLABORATIVE OF GREATER NEW ORLEANS

**Nathan Lott**, [nathan@nolawater.org](mailto:nathan@nolawater.org)

**Brady Skaggs**, (504) 836-2235, [brady@saveourlake.org](mailto:brady@saveourlake.org)

**Miriam Belblidia**, [miriam@waterworksla.com](mailto:miriam@waterworksla.com)

4906 Canal St.

New Orleans, LA. 70119

## AMERICAN INSTITUTE OF ARCHITECTS

**Jason Richards**, [jrichards@eskewdumezripple.com](mailto:jrichards@eskewdumezripple.com)

**Angela Morton**, [amorton@mathesbrierre.com](mailto:amorton@mathesbrierre.com)

**Joel Pominville**, [pominville@aianeworleans.org](mailto:pominville@aianeworleans.org)

1000 St. Charles Ave.

New Orleans, LA. 70130  
(504) 525-8320

**GULF STATES RENEWABLE ENERGY INDUSTRIES ASSOCIATION**

**Jeffery D. Cantin**, [jcantin@gsreia.org](mailto:jcantin@gsreia.org)  
400 Poydras St. Suite 900  
New Orleans, LA. 70130

**DEEP SOUTH CENTER FOR ENVIRONMENTAL JUSTICE**

**Monique Harden**, [moniquecovharden@gmail.com](mailto:moniquecovharden@gmail.com)  
3157 Gentilly Blvd., #145  
New Orleans, LA. 70122  
(504) 517-2534

**GREATER NEW ORLEANS HOUSING ALLIANCE**

**Andreanecia Morris**, [amorris@gnoha.org](mailto:amorris@gnoha.org)  
**Trayshawn Webb**, [twebb@gnoha.org](mailto:twebb@gnoha.org)  
4460 S. Carrollton Ave. Suite 160  
New Orleans, LA 70119  
(504) 224-8300

**POSI GEN**

**Elizabeth Galante**, [bgalante@posigen.com](mailto:bgalante@posigen.com)  
**Ben Norwood**, [bnorwood@posigen.com](mailto:bnorwood@posigen.com)  
819 Central Ave., Suite 201  
Jefferson, LA. 70121  
(504) 293-4819

**ADVANCED ENERGY MANAGEMENT ALLIANCE**

**Katherine Hamilton**, [Katherine@aem-alliance.org](mailto:Katherine@aem-alliance.org)  
1200 18<sup>th</sup> St. NW, Suite 700  
Washington DC 20036  
(202) 524-8832

**OPTIMAL ENERGY, INC.**

**Cliff McDonald**, [mcdonald@optenergy.com](mailto:mcdonald@optenergy.com)  
**Jeff Loiter**, [loiter@optenergy.com](mailto:loiter@optenergy.com)

10600 Route 116, Suite 3  
Hinesburg, VT 05461  
(802) 482-5600