

Rockland Energy Committee

Report To Planning Board

Date: **January 25, 2016 Meeting**

Members: Larry Pritchett, Bill Pearce, Tony Coyne, Brooks Winner
Nathan Davis (Mayor Has Nominated/Pending Council Confirmation)

To: Eric Laustsen & Members Of Planning Board

Regarding: **Ordinance Amendment #48**
Development Of Standards For Grid Scale Power Generation Facilities

1. Summary/Overview

On January 11, 2016 the City Council enacted a moratorium on site plan applications for new power generation facilities over 10 megawatts in capacity. The moratorium as enacted does not apply to businesses constructing heating or power generation systems to meet on-site heating and/or power needs. The first step under the moratorium is for the City's Energy Committee to provide a summary of issues and questions that the Committee recommends be considered by the Planning Board based on the questions raised and information presented at the community forums facilitated by the Committee in 2015. This document constitutes that summary.

The Energy Committee held three meetings (1/14, 1/21 and 1/25) to review materials and develop this summary for the Planning Board. At the initial meet on January 14th, the Committee discussed at some length the types of power generation facilities that would likely be covered by this moratorium. While wind power projects are being built at sizes over 10 Megawatts, the City's long standing height ordinance precludes the construction of grid scale wind projects in the City. Likewise, solar is being developed at some locations on a scale over 10 megawatts. But a 10 MW solar farm would require 50 acres of land, which makes development on that scale in Rockland unlikely.

After some discussion the Committee concluded that in practice this moratorium would apply to a couple of related power generation technologies. First the moratorium would apply to facilities that use a liquid or gaseous fuel (biogas, natural gas, diesel, etc.) to power a turbine that drives a generator. Second, the moratorium would apply to facilities that burn some form of feedstock or fuel (biomass, natural gas, oil, biogas, etc.) to make steam that in turn drives a generator. Many modern power generation facilities utilize both processes (i.e., biogas or natural gas powers a turbine; the exhaust heat from the turbine is utilized to make steam that in turn powers a steam turbine).

The points detailed below are drafted around these types of technologies. The Committee also discussed that regulations should be crafted with careful thought not to inadvertently preclude renewable energy sources or preclude a business from installing power or heat generation equipment that would lower a business' emissions and energy consumption.

2. Water Utilization, Recycling & Disposal

A. Background Information:

Historically, many types of electrical power generation facilities utilized large volumes of water. Some of this water was used for equipment cooling. In many cases the largest water utilization was to make steam to drive generators. If this water was used on a "once through basis" (i.e., run through the power plant and then discharged to a water body or released into the air as low

pressure steam), daily water consumption by an electrical power plant could be on the scale of hundreds of thousands, if not millions, of gallons per day.

However technologies like “Combined Heat and Power” were developed to utilize the heat from the power generation process for manufacturing purposes or building heating and cooling. The U.S. Environmental Protection Agency supported research on these types of technologies in part because CHP type plants can, in a cost effective manner, dramatically reduce if not eliminate daily source water consumption and daily wastewater discharges from power generation facilities.

B. Key Question(s):

1. Should the City add standards requiring a minimum percentage (50%? 85% or ???) of source water utilized in a combined cycle power generation facility, a combined heat and power facility or in a steam powered electrical generation facility for cooling, steam generation, or hot water distribution be recycled?
2. If the City requires a minimum level of water recycling, should that minimum requirement be reduced, or eliminated, if processed wastewater is the source water for the facility?
3. For a power generation facility, should the City add standards that would set an absolute maximum peak or average water consumption or set standards for drought conditons?
4. Should the city regulate or prohibit (if it does not already) thermal discharges to the municipal stormwater system or new direct thermal discharges to the harbor?

3. Noise Standards & Site Plan Evaluation Mechanism

A. Background Information:

Electrical power generators may be driven by direct fuel powered turbines (i.e., natural gas, biogas, etc.) or by steam turbines (i.e., powered by heat recovered from the fuel driven turbines or from biomass or similar stream boilers). Both sides of this process (i.e., the turbine and the steam) may generate substantial noise that can have unique sound attributes.

B. Key Question(s):

1. Does the City need to modify its noise standards, or add specific site review noise modeling provisions that would be paid for by the applicant, to insure adequate analysis of potential sounds/noise attributable to processes in these types of electrical power generation facilities?
2. Should the City add local ordinances provisions governing either noise easements or sound mitigation measures on nearby properties?

4. Local Air Emissions And Meeting Emissions Reduction Targets

A. Background Information:

Burning virtually any fuel (natural gas, oil, biogas, diesel, solid waste, biomass, wood pellets, coal, etc.) generates some level of the air pollutants nitrogen oxides (NO_x), sulfur oxides (SO_x), particulate matter (PM₁₀) and carbon dioxide (CO₂). NO_x, SO_x and PM₁₀ all can contribute to respiratory problems like asthma. In Maine, especially along the coast, these pollutants are the primary source of acid rain which degrades lake water quality and weakens softwood trees.

Carbon dioxide (CO₂) emissions from burning fossil fuels are generally accepted as a major contributor to climate change. The best available data indicates CO₂ emissions and global warming present significant challenges to the Gulf of Maine due to related warming of the Gulf's historically cold waters and due to CO₂ emission making the Gulf more acidic. The northeast states have a goal of reducing CO₂ emissions by 80% from historic peaks by 2050.

High efficiency systems combined with emissions controls can limit emissions of SO_x, NO_x, and PM₁₀ to low levels Utilizing technology like "Combined Heat and Power" allows electrical power to be generated and the heat from the power generation process utilized for other purposes. Thus electricity could be produced locally with no increase in emissions (or a reduction in emissions) if the recovered heat from new power generation displaces heat being generated by existing boilers.

B. Key Question(s):

1. For power generation facilities developed to sell power, as opposed to facilities developed to directly supply a local business' energy needs,, should the City make site plan approval contingent on MeDEP approval of any required air emissions license for the proposed facility combined with an additional submittal by the applicant showing that the MeDEP approved emissions limits will lower air pollutants released locally (by a specific target percentage??) because of other existing local air emissions sources replaced by the facility or by efficiency measures implemented as a part of the project?

5. Standards Specific To Open Cooling Towers

A. Background Information:

In some cooling tower designs, the water being cooled cascades down an open tower directly exposed to the air as opposed to flowing through coiling coils. Steam/mist will be visibly under some (many) atmospheric conditions around open cooling towers. Utilized on a large scale, an open cooling tower may produce enough steam/fog/mist/precipitants in the immediate area to potentially be a nuisance or to potentially raise traffic safety questions.

B. Key Question(s):

1. Should the City either prohibit open cooling towers over a specific size or develop standards by which to evaluate larger open towers and to base conditions that avoid potential localized impacts?

6. Traffic Impacts and Transportation Routes For Trucked Fuel/Feed Stock

A. Background Information:

Power generation facilities utilizing compressed natural gas (CNG), biomass (i.e., wood chips, wood pellets, straw, etc.) or solid waste could require more than a dozen 80,000 lb. GVW truck deliveries daily depending on the size of the facility (municipally owned 70 megawatt McNeil Biomass plant in Burlington Vermont as one example).

B. Key Question(s):

1. Should the City's site plan standards be revised to allow the City to specify which routes would be used, or the timing of deliveries, to supply the fuel to the facility?

2. Should the City's site plan standards be revised to allow the City to require the developer to pay for road or intersection improvements needed to safely accommodate added truck traffic providing fuel/feedstock to the facility?

7. Onsite Fuel/Feedstock Storage, Fugitive Emissions & Emergency Response Plan

A. Background Information:

A natural gas fueled facility supplied by a pipeline would likely have some onsite fuel storage (either CNG or diesel). A biomass facility could have several days of feedstock stored onsite. A CNG supplied facility would have several trailers parked on site. Also, power generation facilities of these types would require an emergency response plan for both onsite fuel and the generation facility.

B. Key Question(s):

1. Are any revisions needed to the City's site plan standards to insure appropriate screening and safety measures are required for onsite fuel storage or any other hazardous materials utilized?
2. Are any specific revisions needed to the City's site plan standards to address any potential fugitive emissions of fuels or other chemicals from a power generation facility?
3. Do the City's site plan standards (or other ordinances) require the developer to pay for any municipal costs related to the development of emergency response plans for the facility?

8. Development Of Properties on Zone Boundaries

A. Background Information:

In some locations in the City properties in Commercial or Industrial zones on which a grid scale electrical power generation facility could be located are adjacent to, or across the street from, residential zones or existing residential uses.

B. Key Question(s):

1. Should any supplemental revisions to setback, screening, or sound standards be added for grid scale power generation projects where the property on which the facility is proposed abuts a residential zone (or an existing residential use)?

9. Development Of Properties Abutting High Value Wetlands

A. Background Information:

In some locations properties in Commercial or Industrial zones on which a grid scale electrical power generation facility could be located are adjacent to high value wetlands.

B. Key Question(s):

1. Should any supplemental revisions to setback, screening, sound or other standards be added for grid scale power generation projects where the property on which the facility is proposed abuts high value wetlands?

10. Fiscal Capacity Standard For Developer

A. Background Information:

Grid scale electrical power generation facilities require multi-million dollar level of investment to bring to full operational status.

B. Key Question(s):

1. Is the City's financial capacity requirement adequate to insure that once permits are granted the facility will likely be completed and the City is not at any significant risk of acquiring a partially completed project due to unpaid taxes in the future?

11. Decommissioning Costs**A. Background Information**

Smaller power generation facilities likely raise no unique questions once closed than a range of other commercial and industrial uses the City permits. However larger power generation facilities (30 MW, 75 MW, 250 MW) may be of a scale that the facility would present substantial financial challenges to repurpose or demolish when closed down.

B. Key Question

Should the City create a mechanism by which facilities over a specified size would be required to set aside some percentage of annual revenue from the sale of electricity generated into a City verifiable escrow account that can be used solely for decommissioning?

12. Questions Raised That Appear Not To Be Site Plan Or Zoning Questions

When the community forums were held, City Council had approved an option on both the current Public Services Garage site and the adjacent City Hall property with a developer who was considering constructing a combined heat and power generation facility up to 74 Megawatts in capacity. Many of the questions raised and concerns expressed can be translated into regulatory standards.

A few of the questions raised at the forums appear straightforward to consider as conditions to insure community benefits from the sale of public land. But the Energy Committee could not clearly identify any site plan aspect to these questions (or in one case noted below there is a local regulatory questions, but the issue appears to be mostly a street opening question and possibly not a site plan question). The Energy Committee decided to note these here in case there might be a Site Plan/Zoning facet to these which the Committee missed. And, all of these questions would appear valid if a developer requested a Credit Enhancement Agreement, or any similar form of City support.

A. Not Displacing Cleaner Local Distributed Generation

Conservation Law Foundation's presentation, "Getting Natural Gas Right," at the August forum included the point that a natural gas powered facility should not displace cleaner local distributed sources of power generation

B. Local Community Benefit

Some new construction of power generation is targeted to meet local electrical needs (or even consumption of just one business, home or institution). Larger projects are often developed to sell power to the New England grid. In this later scenario the benefits are regional. One key question is what benefits associated with grid scale power generation projects benefit the local community? A second question is whether the city should consider negotiating monetary and/or non-monetary community benefits with the developer?

C. Standards For High Pressure Steam Lines/Safety Response to Steam Leaks

The Moratorium clearly envisions possible revisions to City's street opening ordinance to address natural gas lines and related questions. The moratorium does not mention steam lines. But thermal and pressure and joint standards may also warrant review.

13. Documents From Local Forums

The following documents are available on the City web site (and can be easily emailed to members of the Planning Board by the Energy Committee).

- A. May 26th Forum: EMI Slides & Energy Committee Record of Public Comments
- B. August 19th Forum: Greg Cunningham/Conservation Law Foundation Slides
- C. August 19th Forum: Tim Schneider/Public Advocate Slides
- D. August 19th Forum: Kathleen Everett/SMRT Slides
- E. August 19th Forum: Energy Committee Compilation of Community Questions



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STANDARD TERMS & CONDITIONS

The following Standard Terms and Conditions, together with the attached Scope of Services for Technical Support for Development of Power Generation Ordinance Standards Rockland City Council Ordinance Amendment 2015-48 ("Scope of Services"), constitute the terms of this agreement ("Agreement") between Woodard & Curran, Inc. ("Engineer"), with an address of 41 Hutchins Drive, Portland, ME 04102, and City of Rockland ("Client"), with an address of 270 Pleasant Street Rockland, ME 04841, with respect to the performance of the Scope of Services (the "Project") and any additional services.

WHEREAS, it is the desire of the Client to contract the services described in the Scope of Services; and Engineer desires to perform the services described in the Scope of Services.

NOW THEREFORE, the parties hereto agree as follows:

1. Scope of Services

Engineer, as representative of the Client, shall perform the services described in the attached Scope of Services.

- 1.1 Assumptions. The Engineer's Scope of Services and the compensation are conditioned upon, and are subject to, the assumptions set forth in the Scope of Services.
- 1.2 Change in Scope of Services. Client may, at any time, by written order, request changes to the Scope of Services or work to be performed. If the Scope of Services is changed in a manner that will increase or decrease Engineer's costs or the time required to perform the services under this Agreement, there will be an equitable adjustment to this Agreement that must be signed by both parties.

2. Engineer's Responsibilities

Engineer shall be responsible for the following:

- 2.1 Engineer will perform all work in accordance with the attached Scope of Services.
- 2.2 Engineer will perform all work in a professional manner that is consistent with other professionals performing similar work in the geographic area at the time services are rendered.
- 2.3 Engineer shall comply with all laws and regulations applicable to Engineer's performance of the Scope of Services.
- 2.4 Engineer shall assign a project manager to act as Engineer's representative with respect to services to be rendered under this Agreement.
- 2.5 Engineer shall have all licenses and permits required by the Scope of Services.

3. Client's Responsibilities

Client shall do the following in a timely manner so as not to delay the services of Engineer:

- 3.1 Designate in writing a person to act as Client's representative with respect to the services to be rendered under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define Client's policies and decisions with respect to Engineer's services described in the Scope of Services. Such person shall have complete authority to bind Client financially with respect to the payment of services to be rendered under this Agreement.
- 3.2 Provide all criteria and full information as to Client's requirements for the Project, including design objectives and constraints, performance requirements, and any budgetary limitations; and furnish copies of all design and construction standards which Client will require to be included in any drawings and specifications.
- 3.3 Provide Engineer with all available information pertinent to the Project including previous reports and any other documents and data relative to design or construction of the Project, all of which Engineer shall be entitled to use and rely upon with respect to the accuracy and completeness thereof, in performing the services under this Agreement.
- 3.4 Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by Engineer; and provide written comments within a reasonable time so as not to delay the services of Engineer.
- 3.5 Give prompt written notice to Engineer whenever Client observes or otherwise becomes aware of any development that may affect the Scope of Services or timing of Engineer's services.
- 3.6 Ensure Engineer, its agents and representatives have safe access to the Project site, buildings thereon, and other locations as required to perform the Scope of Services.

4. Subcontracts

- 4.1 If requested by Client, the Engineer will recommend the Client's engaging the services of laboratories, testing services, subconsultants, or third parties to perform suitable aspects of the Services. Invoices for such third-parties will be reviewed by the Engineer, and the Engineer will make recommendations to the Client regarding payment. Payment to these third-parties will be made directly by the Client. The Engineer will recommend the use of such third parties with reasonable



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care, but does not guarantee their services and will not be liable for their errors or omissions.

- 4.2 In the alternative, Engineer may subcontract any portion of the Scope of Services to a subcontractor approved by Client, and the Engineer will add a 10% surcharge on invoices paid directly by the Engineer for laboratories, testing services, subconsultants, or other third-parties, and that surcharge will be reflected on Engineer's monthly invoices submitted to Client.

5. Billing and Payment

- 5.1 Client shall pay Engineer in accordance with the payment methods, rates, and charges set forth in the Scope of Services or otherwise agreed upon. Engineer will submit monthly invoices for services rendered and expenses incurred during the previous period.

- 5.2 Payment will be due upon receipt of Engineer's invoice. Payments due Engineer and unpaid under the terms of this Agreement shall bear interest from thirty (30) days after the date payment is due at the rate of one and one half (1.5) percent per month (18 percent per annum) until paid in full. In the event that Engineer is compelled to take action to collect past due payments, the Client will reimburse Engineer for all costs and expenses of collection including, without limitation, all court costs and reasonable attorney's fees and costs.

- 5.3 Reimbursable Expenses include actual expenditures made by Engineer, including, but not limited to:

5.3.1 transportation and living expenses incurred in connection with travel on behalf of the Client;

5.3.2 overnight or priority postage and costs for special handling of documents;

5.3.3 renderings and models requested by the Client;

5.3.4 expense of overtime work requiring higher than regular rates;

5.3.5 expense of any additional insurance coverage or limits, including professional liability insurance, requested by the Client in excess of that normally carried by Engineer and Engineer's consultants;

5.3.6 automobile expenses for personal vehicles at the prevailing Internal Revenue Service (IRS) reimbursement rate, plus toll charges, for travel in conduct of the work, or rental of vehicles plus gasoline and toll charges for traveling to conduct the work;

5.3.7 use of company field vehicle will be charged according to Engineer's current rates;

5.3.8 charges for materials and equipment provided directly by Engineer will be billed according to Engineer's current rates;

5.3.9 purchase or rental of specialized equipment and other supplies necessary to conduct the work;

5.3.10 computer, drafting, typing and other services or labor provided by outside contract personnel or vendors.

- 5.4 Miscellaneous Direct Expenses will be billed to your project(s) each month at 3% (or as otherwise set forth in the Scope of Services) of the current month's labor fee (including project contract labor fee). This will cover expenditures for miscellaneous telephone, fax, photocopying, postage, digital camera, and computer expenses incurred on your project(s).

- 5.5 If the Project is suspended or abandoned in whole or part, Engineer shall be compensated for all services performed prior to receipt of written notice from the Client of such suspension or abandonment, together with Reimbursable Expenses and Miscellaneous Direct Expenses then due plus Project closeout costs actually incurred. If the Project is resumed after being suspended for more than three (3) months, Engineer's compensation shall be equitably adjusted between the Client and Engineer.

- 5.6 No deductions shall be made from Engineer's compensation on account or sums withheld from payments to contractors, nor shall payment to Engineer be contingent upon financing arrangements or receipt of payment from any third party.

- 5.7 If the Client fails to make payment when due Engineer for services, Reimbursable Expenses, or Miscellaneous Direct Expenses, Engineer may, upon seven days' written notice to Client, suspend performance of services under this Agreement. Unless payment in full is received by Engineer within seven days of the date of the notice, the suspension shall take effect without further notice. In the event of a suspension of services, Engineer shall have no liability to Client for delay or damage caused Client or others because of such suspension of services.

- 5.8 If Client objects to all or part of any invoice, Client shall notify Engineer in writing within two weeks of the date of the invoice, and shall pay that portion of the invoice not in dispute within 30 days after the date of receipt of the invoice. Provided that an objection is made in good faith, the parties shall immediately make every effort to settle the disputed portion of the invoice. If the dispute is resolved in favor of Engineer, interest shall accrue on the unpaid portion of the invoice in accordance with Section 5.2 of this Agreement.



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6. Ownership and Use of Documents

6.1 All documents including drawings and specifications prepared or furnished by Engineer (and Engineer's independent professional associates, subcontractors and consultants) pursuant to this Agreement are instruments of service in respect of the Project and Engineer shall retain an ownership and property interest therein whether or not the Project is completed. Client may take and retain copies for information and reference in connection with the use and occupancy of the Project by Client and others. However, such documents are not intended or represented to be suitable for reuse by Client or others on extensions of the Project or on any other project. Any reuse without written verification or adaptation by Engineer for the specific purpose intended will be at Client's sole risk and without liability or legal exposure to Engineer or to Engineer's independent professional associates, subcontractors and consultants from all claims, damages, losses and expenses including attorney's fees arising out of or resulting therefrom. Any such verification or adaptation will entitle Engineer to further compensation rates to be agreed upon by Client and Engineer.

6.2 Submission or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of Engineer's rights under this section.

7. Limitation of Liability

7.1 The total liability, in the aggregate, of Engineer and Engineer's officers, directors, employees, agents, and independent professional associates and consultants, and any of them, to Client and any one claiming by, through or under Client, for any and all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to Engineer's services, the Project or this Agreement, from any cause or causes whatsoever, including, but not limited to, the negligence, errors, omissions, strict liability, breach of contract, breach of warranty of Engineer or Engineer's officers, directors, employees, agents or independent professional associates or consultants, or any of them, shall not exceed the total covered amount available under Engineer's applicable insurance policy limits set forth herein.

7.2 Neither party shall be responsible or held liable to the other for special, indirect, or consequential damages, including, but not limited to, loss of profit, loss of investment, loss of product, business interruption, or liability for loss of use of facilities or Client's existing property, however the same may be caused.

8. Insurance

8.1 Engineer is protected by Workers' Compensation Insurance in statutory amounts; General Liability

Insurance of \$1,000,000 per occurrence and \$2,000,000 in the aggregate; and Professional Liability Insurance of \$1,000,000 per claim and in the aggregate. Engineer will furnish client a certificate of insurance, upon written request, evidencing such coverage and limits. The Client and Engineer waive all rights of subrogation against: 1) each other and their subconsultants, subcontractors, agents and employees, each of the other, and 2) the Client's contractor (if any) and its subcontractors, for damages caused by fire or other perils to the extent covered by property insurance maintained by the Client or its contractor. The Client shall require a similar waiver from any contractor.

9. Indemnification Hold Harmless

9.1 Engineer agrees to indemnify and hold Client, its directors, shareholders, employees, and assigns harmless from and against all claims, damages, causes of actions, and fines to the extent such claims, damages, causes of action and fines are based on or arise out of Engineer's negligent acts or negligent omissions.

9.2 Client agrees to indemnify and hold Engineer, its directors, shareholders, employees, and assigns harmless from and against all claims, damages, causes of actions, and fines to the extent such claims, damages, causes of action and fines are based on or arise out of Client's negligent acts or negligent omissions.

10. Delays/Force Majeure

10.1 Except as specifically set forth in this Agreement, neither party shall hold the other responsible or liable for damages or delays in performance caused by acts of God, interruptions in the availability of labor, or other events beyond the control of the other party, or that could not have been reasonably foreseen or prevented. For this purpose, such acts or events shall include unusually severe weather affecting performance of services, floods, epidemics, war, riots, strikes, lockouts, or other industrial disturbances, protest demonstrations, unanticipated Project site conditions, and inability, with reasonable diligence, to supply personnel, equipment, or material to the Project. Should such acts or events occur, both parties shall use their best efforts to overcome the difficulties arising and to resume as soon as reasonably possible the normal pursuit of the Scope of Services. Delays within the scope of this provision which cumulatively exceed thirty (30) days in any six (6) month period shall, at the option of either party, make this Agreement subject to termination or to renegotiation.

11. Notice

11.1 All notices authorized or required between the parties, or required by any of the provisions herein, shall be given in writing and shall be sent by certified mail, return receipt requested, and deposited with an accepted postal



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service, postage prepaid, and addressed to the intended party at the address set forth in the first paragraph of these Terms and Conditions. Notices sent in this manner shall be deemed given seven business days after mailed. Notices may also be given by personal delivery, sent via a regionally recognized overnight carrier (i.e. FedEx, UPS), or sent by facsimile, and shall be deemed given when delivered (if by personal delivery or overnight courier) or when faxed.

12. Dispute Resolution

12.1 Step Negotiations. The parties shall attempt in good faith to resolve all disputes ("Controversy") promptly by negotiation, as follows. Any party may give the other party written notice of any Controversy not resolved in the normal course of business. Managers of both parties at levels at least one level above the project personnel involved in the Controversy shall meet at a mutually acceptable time and place within five days after delivery of such notice, and thereafter as often as they reasonably deem necessary, to exchange relevant information and to attempt to resolve the Controversy. If the matter has not been resolved within thirty days from the referral of the Controversy to the managers, or if no meeting has taken place within ten days after such referral, either party may initiate mediation as provided hereinafter. All negotiations pursuant to this clause are confidential and shall be treated as compromise and settlement negotiations purposes of the Federal Rules of Evidence and state Rules of Evidence.

12.2 Mediation. In the event that any Controversy arising out of or relating to this Agreement is not resolved in accordance with the procedures provided herein, such Controversy shall be submitted to mediation with a mutually agreed upon mediator. The mediation shall be filed at the regional office of the agreed upon mediator closest to the Project site. The mediation shall take place at an Engineer's office unless otherwise agreed to by the parties. If the mediation process has not resolved the Controversy within thirty days of the submission of the matter to mediation, or such longer period as the parties may agree to, the mediation process shall cease. All mediation documents and discussions pursuant to this clause are confidential and shall be treated as compromise and settlement negotiations for purposes of the Federal Rules of Evidence and state Rules of Evidence. Nothing herein shall limit the rights and remedies that the parties may have under this Agreement or under other legal and equitable proceedings.

13. Termination

13.1 Either party shall have the right to terminate this Agreement with respect to the Project for convenience, at its option, by sending a written Notice of Termination to the other party. The Notice of Termination shall specify when and which services will be discontinued

and when termination shall be effective, provided that no termination shall be effective less than ten (10) calendar days after receipt of the Notice of Termination. No later than thirty (30) calendar days after termination, Client shall pay Engineer for all Services performed and charges incurred prior to termination, including, without limitation, costs and expenses related to putting Project documents and analyses in order and rescheduling personnel and equipment.

13.2 Either party shall have the right to terminate this Agreement with respect to the Project for cause if the other party commits a material breach of this Agreement and fails to cure such breach within ten (10) days. A Notice of Default, containing specific reasons for termination, shall be sent to the defaulting party, and both parties shall cooperate in good faith to cure the default or defaults stated in the Notice of Default. Termination shall not be effective if the breach has been remedied within ten (10) days after the defaulting party's receipt of the Notice of Default or the later date specified in the Notice of Default, or, if the defaulting party has begun to cure such default within such period and such default cannot reasonably be cured within such period, if such defaulting party diligently prosecutes curing such default to completion (provided that such provision shall not apply to Client's failure to timely pay an invoice). In the event of termination for cause, Engineer shall be paid the same as in the case of termination for convenience and the parties shall have their remedies at law as to any other rights and obligations between them, subject to the other terms and conditions of this Agreement.

14. Construction Contract Responsibilities

14.1 When Engineer's services include the performance of any services during the construction phase of the Project, it is understood that the purpose of any such services (including any visits to the Project site) will be to enable Engineer to better perform the duties and responsibilities assigned to and undertaken by it as an experienced and qualified design professional, and to provide the Client with a greater degree of confidence that the completed work of Client's construction contractor(s) ("Contractor") will conform generally to the contract documents and has been implemented and preserved by Contractor(s). Engineer shall not, during such visits or as a result of any observations of construction, supervise, direct or have control over Contractor's(s') work nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences or procedures of construction selected by the Contractor(s) or safety precautions and programs incident to the work of Contractor(s) or for any failure of Contractor(s) to comply with laws, rules, regulations, ordinances, codes or orders applicable to Contractor(s) furnishing and performing its (their) work. Engineer does not guarantee the performance of the construction contract by the



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Contractor(s), and does not assume responsibility for Contractor's(s') failure to furnish and perform its (their) work in accordance with the contract documents.

14.2 If Engineer's contract with the Client so requires, Engineer shall review (or take other appropriate action in respect of) shop drawings, samples and other data which Contractor(s) is (are) required to submit, but only for conformance with the design concept of the Project and compliance with the information given in the contract documents. Such review or other actions shall not extend to means, methods, techniques, sequences or procedures of manufacture (including the design of manufactured products) or construction, or to safety precautions and programs incident thereto. Engineer's review or other actions, as described above, shall not constitute approval of an assembly or product of which an item is a component, nor shall it relieve the Contractor(s) of (a) its (their) obligations regarding review and approval of any such submittals; and (b) its (their) exclusive responsibility for the means, methods, sequences, techniques and procedures of construction, including safety of construction.

15. Health and Safety

15.1 Engineer and its employees shall follow health and safety precautions which meet federal, state and local regulations. If asked to conduct any activities which do not conform to said regulations, or which Engineer determines in its sole discretion to be unsafe or unhealthy, Engineer shall have the option to stop work immediately and inform Client of unacceptable health and safety conditions, and both parties shall enter into good-faith negotiations to remedy the unacceptable conditions. If no remedy can be agreed upon, Engineer and Client may terminate this Agreement with respect to Scope of Services in accordance with the terms stated herein.

15.2 Engineer will not implement or be responsible for health or safety procedures other than for its own employees. Engineer shall not share any responsibility for the acts or omissions of other parties on the Project or have control or charge of, or be responsible for safety precautions and programs of Client or other contractors. Unless otherwise agreed in the Scope of Services, Engineer's observation and testing of portions of the work of other parties on a project site shall not relieve such other parties from their responsibilities for performing their work in accordance with applicable plans, specifications and health and safety requirements. Client agrees to notify such contractors or other parties accordingly.

16. Pre-Existing Conditions and Subsurface Risks

16.1 Where the Scope of Services includes or requires on-site work, visits, investigations, or explorations, Engineer and Client agree to the following:

16.1.1 Hazardous Substances. Client acknowledges that Engineer has neither created nor contributed to the creation of any hazardous waste, hazardous substance, radioactive material, toxic pollutant, asbestos, or otherwise dangerous substance (collectively referred to as "hazardous substance"), or dangerous condition at the Project site. Consequently, Client agrees to defend, indemnify and hold Engineer harmless from and against any and all claims, damages, losses, fines, suits or causes of action (collectively referred to as "claims") relating to personal injury; property damage; non-compliance or liability arising under environmental laws including, but not limited to, RCRA, CERCLA or similar federal or state laws, to the extent the claims are based on or arise from the existence or release of any hazardous substances. The term "property" as used herein means all real and personal property, including, without limitation, tangible and intangible rights and interests, economic or other losses, or other rights with respect thereto.

16.1.2 Client's Duty to Notify Engineer of Hazards. Client shall provide Engineer with all information known to Client with respect to the existence or suspected existence of any hazardous substances at, on, or in close proximity to the Project site. Client will advise Engineer immediately of any information which comes into Client's possession regarding the existence of any such potentially hazardous substances, or any condition known to Client to exist in, on, under or in the vicinity of the Project site which might present a potential danger to human health or the environment.

16.1.3 Engineer shall take reasonable precautions for the health and safety of its employees while at the Project site with consideration for the available information regarding existing hazards.

16.1.4 Control of Project Site. Client acknowledges that it is now and shall remain in control of the Project site at all times. Engineer shall have no responsibility or liability for any aspect or condition of the Project site, now existing or hereafter arising or discovered. Engineer does not, by entry into an agreement with Client or its performance of services under any such agreements, assume any responsibility or liability with respect to the Project site; nor shall any liability or responsibilities be implied or inferred by reason of Engineer's performance of any work at the Project site.

16.1.5 Right of Entry. Unless otherwise agreed, Client will furnish right-of-entry on the land for Engineer to make the planned borings, explorations, or field tests. Engineer will take reasonable precautions to minimize damage to the land from use of equipment, but has not included in its fee the costs for restoration of damage that may result from Engineer's operations, or



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the operations of any person or entity engaged by Engineer in the performance of services under this agreement. If Engineer is required to restore the land to its former condition, such work will be accomplished and the costs, plus fifteen percent (15%), will be added to Engineer's fee.

16.1.6 Subsurface Risks. Client recognizes that special risks occur whenever engineering or related disciplines are applied to identify subsurface conditions. Even a comprehensive sampling and testing program, implemented with appropriate equipment and experience by personnel under the direction of a trained professional who functions in accordance with a professional standard of practice may fail to detect certain hidden conditions. For similar reasons, actual environmental, geological, and geotechnical conditions that the Engineer properly inferred to exist between sampling points may differ significantly from those that actually exists. The Client acknowledges these risks.

16.1.7 Engineer will exercise reasonable and professional care in seeking to locate subterranean structures in the vicinity of proposed subsurface explorations at the Project site. Engineer will contact public utilities and review plans and information, if any, provided by public utilities, public agencies and Client. So long as Engineer observes such standard of care, Engineer will not be responsible for any unavoidable damage, injury or interference with any subterranean structures, pipe, tank, cable or any other element or condition if not called to Engineer's attention prior to commencement of services or which is not shown, or accurately located, on plans furnished to Engineer by Client or by any other party, or which could not have been reasonably identified by Engineer.

17. Samples

17.1 Non-Hazardous Samples. Engineer will dispose of all soil, rock, water, and other samples thirty (30) days after submission of Engineer's initial report. Client may request, in writing, that any such samples be retained beyond such date, and in such case Engineer will ship such samples to the location designated by Client, at Client's expense. Engineer may, upon written request, arrange for storage of samples at Engineer's offices at mutually agreed storage charges. Engineer will not give Client prior notice of intention to dispose of samples.

17.2 Hazardous Samples. Although the Client shall have the obligation to dispose of any "hazardous" samples, if samples collected from the Project site contain substances defined as "hazardous" by federal, state, or local statutes, regulations, codes, or ordinances, Engineer shall, at its option, have the right to: (1) dispose of samples by contract with a qualified waste disposal contractor; (2) in accordance with Client's

written directions, ship such samples by an appropriately licensed transporter to a licensed disposal site; or (3) return such samples by an appropriately licensed transporter, to Client. Client shall pay all costs and expenses associated with the collection, storage, transportation, and disposal of samples. If Client requests in writing, that any such sample be retained for a period in excess of thirty (30) days, Engineer will store such samples at Client's expense and Client will pay an additional fee as charged by Engineer in accordance with its standard laboratory schedule for storage of samples of a "hazardous substance."

18. Miscellaneous

18.1 This Agreement shall be governed and construed in accordance with the laws of the State of Maine.

18.2 The prevailing party in any lawsuit, appeal, bankruptcy or other legal proceeding relating to this Agreement or its appendices shall be entitled to recover from the non-prevailing party all reasonable attorneys' fees, costs and expenses incurred by the prevailing party, and in all efforts to collect any recovery by the prevailing party. Any action to enforce or interpret this Agreement shall be commenced or maintained only in the judicial or administrative tribunal in the jurisdiction of the State of Maine, and each party waives any venue, convenient forum, removal, jurisdiction, or other rights to the contrary.

18.3 Section headings in this Agreement are included herein for convenience of reference only, and shall not constitute a part of the Agreement or for any other purpose.

18.4 The Client and Engineer respectively, bind themselves, their partners, successors, assigns and legal representatives to the other party to this Agreement and to the partners, successors, assigns and legal representatives of such party with respect to all covenants of this Agreement. Neither the Client nor Engineer shall assign, sublet or transfer any interest in this Agreement without the written consent of the other.

18.5 This Agreement represents the entire and integrated Agreement between the Client and Engineer, and supersedes all prior negotiations, representations or agreements, either written or oral, and may be amended only by written instruments signed by both Client and Engineer.

18.6 If any provision of this Agreement is held invalid or unenforceable by any court of final jurisdiction, it is the intent of the parties that all other provisions of this Agreement be construed to remain fully valid, enforceable and binding on the parties.



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18.7 Any estimates or opinions of Project or construction costs are provided by Engineer on the basis of Engineer's experience and qualifications as an engineer and represents its best judgment as an experienced and qualified engineer familiar with the construction industry. Since Engineer has no control over the cost of labor, materials, equipment or services furnished by others or over competitive bidding or market conditions, it cannot guarantee that proposals, bids or actual Project costs or construction costs will not vary from any estimates or opinions of costs prepared by Engineer. Similarly, since Engineer has no control over building operation and/or maintenance costs, Engineer cannot and does not guarantee that the actual building system operating or maintenance costs will not vary from any estimates given by Engineer. No fixed limit of construction costs is established as a part of this Agreement.

(Signatures on next page)



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IN WITNESS WHEREOF, the parties have executed this Agreement on the date set forth below:

ENGINEER:

WOODARD & CURRAN, INC.

By: _____

Printed: _____

Title: _____

Thereunto duly authorized

Date: _____

CLIENT:

TOWN OF ROCKLAND MAINE

Print Client Name:

By: _____

Printed: _____

Title: _____

Thereunto duly authorized

Date: _____



City Of Rockland

To: **Dan Kelley PE**

Senior Vice President Power Engineering
Woodard & Curran
41 Hutchins Drive
Portland, Maine 04102

Re: **Scope of Services**

Technical Support For Development Of Power Generation Ordinance Standards
Rockland City Council Ordinance Amendment 2015-48

Project Background

On January 11th, 2016 the Rockland City Council adopted Ordinance Amendment #2015-48. This ordinance amendment established a moratorium on new Site Plan applications for power generation facilities over 10 Megawatts in size that are being developed to sell power to the grid. Ordinance Amendment #2015-48 provides the City with a time window to develop Site Plan and Performance Standards governing power generation facilities.

This Ordinance Amendment charged the City's Planning Board, working with support from the City's Energy Committee, with reviewing the City's current standards and proposing revised standards as may be appropriate to address potential project siting and operations impacts related to power generation facilities.

Services To Be Rendered By Woodard & Curran

This document constitutes the agreement between the City of Rockland and Woodard & Curran to provide technical support to the City, principally the Planning Board, in the ordinance development and ordinance review process. The services to be rendered by Woodard & Curran under this agreement include:

(A) Attending Planning Board meetings and other City meetings on this project as requested; (B) Providing technical analysis to support specific standards in any proposed ordinance; (C) Providing information on the technologies utilized in power generation and any operational attributes that may warrant performance standards to ensure compatibility with surrounding uses; (D) Providing examples from other municipalities and existing facilities; (E) Reviewing any draft ordinance standards developed; (F) Answering community questions at any public forums or public hearings that may be held as a part of ordinance development and ordinance review.

This scope of services may extend to screening level analysis or projections of air emissions, water utilization, feed stock transportation and input, sound levels, power production, or other similar parameters. This scope of services is not intended to cover detailed modeling of parameters beyond exporting data from models already developed by Woodard & Curran unless a modification of this scope of service with specific costs provisions is agreed upon by the City and Woodard & Curran in advance. Opinions offered by Woodard & Curran will be based on relevant prior project experience and further research of questions asked, as required. Technical

guidance will be offered for Ordinance language additions and modifications. The legal authority of this language shall be solely the responsibility of the City of Rockland.

Technical Areas Include In Scope Of Services To Be Rendered By Woodard & Curran

In 2015 three community forums on power generation were held in Rockland. Ordinance Amendment #2015-48 directed the City's Energy Committee "to convey to the Planning Board a summary of any issues that the Committee recommends be considered by the Planning Board" as the Board reviews existing ordinance standards and considers the development of new ordinance provisions. The Energy Committee's report summarizing the identified questions and issues the Committee recommends the Planning Board consider was completed on 1/25/2016.

The Energy Committee's summary identified 10 areas on which the Committee would recommend focusing: (1) Water Utilization, Recycling and Disposal; (2) Noise Standards and Site Planned Evaluation Mechanism; (3) Local Air Emissions and Meeting Emissions Reductions Targets; (4) Standards Specific to Open Cooling Towers; (5) Traffic Impacts and Transportation Routes For Trucked Feed Stock; (6) Onsite Feedstock Storage, Fugitive Emissions and Emergency Response Plan; (7) Development of Properties on Zone Boundaries; (8) Development of Properties Abutting High Value Wetlands; (9) Fiscal Capacity Standard for Developer; And (10) Decommissioning Costs.

The Energy Committee's 1/25/2016 report to the Planning Board is included in this Scope of Services by reference and is attached. The topics just listed, and explained in more detail in the 1/25/2016 report are the areas on which Woodard & Curran may be requested by the Planning Board to provide technical data and information.

Costs Allocation For Services Rendered By Woodard & Curran And Project Phasing

This project will involve two phases. All billing for each phase denoted below shall be actual costs (i.e., professional time spent on the project and any allowed expenses such as travel).

Phase 1: Ordinance Development By Planning Board

To comply with State statutes governing moratoriums and to provide adequate time for the two reading and public hearing process before City Council, any ordinance revisions proposed need to be included in Council's meeting materials packet on Friday April 1st. Thus the Planning Board ordinance development and review process must conclude no later than Tuesday March 29th. Woodard & Curran costs to the City of Rockland for this phase shall be actual costs of professional time and expenses up to \$7,500.

Phase 2: Ordinance Review By City Council And Comprehensive Planning Commission

Revisions to the City's Land Use Ordinances are a three step process. If the Council approves ordinances in First Reading the ordinance goes before the City's Comprehensive Planning Commission for review and then comes back before Council for a "Second Reading" and Public Hearing. On substantive ordinance revisions, the Council frequently holds a work session on the topic. Woodard & Curran costs to the City of Rockland for this phase shall be actual costs of professional time and expenses up to \$2,500.

Project Schedule & Early Termination

The time for providing services under this agreement begins with the initial meeting with the Rockland Planning Board and ends on June 15, 2016 unless the City and Woodard & Curran

agree to extend the agreement. This agreement may be ended early by a majority vote of the Planning Board in Phase 1 or a majority vote of the City Council in Phase 2 if either body concludes additional services are not needed or if Woodard & Curran fails to provide the services specified herein in a timely manner. If the agreement is ended prior to June 15 the City's sole obligation to Woodard & Curran is payment for services rendered and costs incurred up to the date the agreement is ended.

Project Lead

Dan Kelley, PE shall be project lead from Woodard & Curran and all contacts with the City shall be through Dan. Dan will be the representative attending meetings in Rockland unless the City and Woodard & Curran agree that another Woodard & Curran staff member is better suited to address the topics to be covered at a specific meeting.

Public Documents

All materials provided to the City by Woodard & Curran under this agreement for services shall be considered public documents which may be posted to the City's web site or shared with the public in whatever manner is determined to be appropriate by the City.

Terms & Conditions

This Scope of Services is governed by the Terms and Conditions set forth in Attachment B as initialed. If at any point there is perceived to be a difference between Attachment B and the language in the Scope of Services, the Scope of Services language shall govern.

This scope of services is agreed to by:

For The City Of Rockland

James D. Chaousis
City Manager
City of Rockland Maine

For Woodard & Curran

Dan Kelley, PE
Principal
Woodard & Curran

Attachment A: January 25, 2016 Energy Committee Report To Planning Board

Attachment B: Woodard & Curran Terms and Conditions