



Meeting Agenda

4:30 – 6:00 PM, Wednesday, Jul 1st, 2016

Lyons Town Hall

I. Roll Call, Agenda, Minutes

- Amendments to Agenda
- Approve Minutes from Jun 15th
- Upcoming Meetings

II. Audience Business

III. Liaison Updates

- Board of Trustees Update
- Staff, Engineering Update

IV. Continued Business

- Wastewater Pretreatment Policy Recommendation - page 4
- MEAN Distributed Generation Policy Recommendation - page 6

V. New Business

- On-bill financing for energy efficiency - page 9
- Electric Rate Study RFP - page 12, MEAN - page 16, EPSIM - page 22

VI. Parking Lot

- Reserve/Rate Stabilization Funds
- Tap/Connection Fee policy for subsidized housing
- LRAP INF 2.2.1
- Municipal Code Corrections
- Town Utility Account Tracking
- Pipe Water Rates



UEB Meeting Minutes, 15 Jun 2016

Meeting Time and Location: Began at 4:07 at Lyons Town Hall

Attendance:, Aaron Caplan, Steve Wratten, Lee Hall, Coco Gordon, John Cowdry, Dan Reitz

Staff: Dave Fenity, Kyle Miller **Liaisons:** Jim Kerr **Guests:** Jay Stott, Diane Dandeneau

Agenda Amendments:

Previous Minutes: . Amended 4 May minutes under Q1 Financial Review to replace ? with Fixed Cost Recovery Charge (FCRC). Reviewed and approved May 4th, 18th, and Jun 1st minutes.

BoT Update: The BoT mentioned again wanting to try and get financials done earlier. If the UEB has any expenses to request from the BoT, prepare those. Jim K also mentioned he had heard C-BT water shares had reached \$30,000 a share at one time. (Dan Reitz mentioned he had heard about leasing C-BT water shares instead of selling them.)

Staff Update: A contract for the SCADA system for the water utility was being presented at the next BoT meeting. Staff was also making a recommendation for an electric maintenance/repair contract and had selected N-Line Electric. The new electric meters were still waiting to hear about a decision on CDBG grant funding.

MEAN Distributed and Renewable Generation Policy: We received the approved policy which stated May 18th was the effective date and that grandfathered in systems would not be included in the way MEAN determines our FCRC (Fixed Cost Recovery Charge).

Jim K mentioned how there were two different peak times, our peak usage and MEAN's peak usage. It was pointed out that section 2-11 of the policy says we should take meter readings on the same cycle as our applicable rate schedule. **What is our applicable rate schedule? Aaron will try and find out.** MEAN legal counsel said they are still working on the details and asked us to bring up our concerns and thoughts at their August meeting

The UEB discussed the fact that most months our PEAK demand from MEAN happens at 9 PM when there is no or very minimal electricity being produced. We can point this out to MEAN and see if we can negotiate using a method other than data from a production meter to give MEAN the data they need.

Purchasing a secondary production meter is a new expense that someone would have to pay for if we can not negotiate another option of supplying data. Who pays for the meters for systems already in place? Colorado law states the total charge an electric utility can charge for permitting a solar installation is \$500. In earlier legal discussion on this subject Lyons legal stated the cost of meter and installation was included in that maximum \$500 charge.

We discussed the fact that this new policy seems to be MEAN's way of trying to make sure their FCRC remains fair to everyone. MEAN determines its total fixed cost for the year and all municipalities pay a percentage of this amount based on their peak demand. Before this policy one town could implement a large generating system and greatly reduce their FCRC. Large municipalities in particular might be able to shift a larger portion of their FCRC onto smaller municipalities.

The UEB was asked to present details on the new policy and give a recommendation to the BoT at their Jun 20th meeting. The 5 remaining UEB members, Steve Wratten had left, voted unanimously to **Recommend that the BoT take no action at this time. We do not have enough information from MEAN.**

Diane Dandeneau presented some recommendations for the Town of Lyons with regard to this new policy from MEAN. They follow these minutes.

UEB meeting times, time commitment, subcommittees: We decided to move meetings back 30 minutes to start at 4:30. They would still be the first and third Wednesdays of the month.

We discussed what kind of time commitment volunteering on the UEB would have. Aaron mentioned he thought members should expect to average 2 hours a week or 8 hours a month, with 4 of those hours being our 2 meetings each month and then 4 additional hours each month.

We discussed the idea of having subcommittees where 1 or 2 UEB members might take the lead on a particular subject. Then all members do not need to work on all topics. Limiting it to 2 members prevents it from becoming another public meeting. The subcommittee can then give the report on that topic at the meeting. As chair, Aaron mentioned he has tried to lean in this direction but has tried to let members decide what they want to take the lead on.

Meeting ended: 5:50 pm. **Minutes Submitted by:** Aaron Caplan

Pretreatment protects the wastewater treatment facilities and its workers from pollutants that may create hazards or interfere with the operation and performance of the WWTP, including contamination of sewage sludge. It reduces the likelihood that untreated pollutants are introduced into the receiving waters.

We were advised by Gary Berggard of Honeywell Building Solutions that Biological Oxygen Demand (BOD) is the main concern for our plant. The plant can handle 700 pounds of BOD a day. If we go over that the state could require we build a bigger WWTP. The likelihood of this is low but something to be aware of.

Some Examples of Pretreatment Code

Nederland CO code 13-27. Sanitary pretreatment requirements. - Where deemed necessary as determined by the Public Works Foreman, a property owner shall provide, at his or her own expense, such preliminary pretreatment as may be necessary to reduce objectionable characteristics of wastewater, or to control quantities and rate of discharge. Found at http://nederlandco.org/?dl_name=Ch._13_Municipal_Uilities.pdf

St. Vrain Sanitation District - One of their requirements to get service - Completion of the Waste Survey Questionnaire – explaining the anticipated site activities and their potential to generate pollutants. This helps the District determine if additional follow-up is needed on issues such as safe chemical storage or on-site wastewater handling or treatment.

If the nature of the activity is such that pretreatment of wastewater is required, plans for such treatment units must be included for approval. Example: Grease or sand oil interceptors, or other specialized treatment of industrial wastes such as pH neutralization or metal removal. This can be found at <http://www.stsan.com/Requirements%20for%20Connection/Non-Residential%20Building%20Approvals.pdf>
-The survey is at <http://www.stsan.com/Forms/Non-Residential%20Waste%20Survey.pdf>.

Paso Robles CA - This is an example from a town that does have a brewery and is why the UEB started looking at their code. They are an example where specific numbers are required.

The following pollutant limits are established to protect against pass through and interference.

No User shall discharge wastewater containing in excess of the following:

Constituent Concentration Limit

Ammonia 20.0 mg/L

Boron 5.00 mg/L

Cadmium 0.10 mg/L

Chromium 3.70 mg/L

Copper 0.30 mg/L

Cyanide 0.01 mg/L

Nickel 1.90 mg/L

Molybdenum 1.10 mg/L

Selenium 0.27 mg/L

Zinc 4.00 mg/L

Sulfate 200 mg/L

Total Dissolved Solids (TDS). 1000 mg/L

Sodium 200 mg/L

Chloride 150 mg/L

Biological Oxygen Demand (BOD) 360 mg/L

Total suspended solids (TSS) 360 mg/L

Oil and Grease 100 mg/L

Code of Federal Regulations (CFR) Title 40 - Protection of Environment

Part 403 General Pretreatment Regulations

Promulgated under authority of the Clean Water Act and administered by EPA

http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr403_main_02.tpl

In 403.8 are the Pretreatment Requirements. Lyons Sanitation is not federally required to develop a pretreatment program because we fall under the 5 million Gallons per day limit. The regulations are pretty complicated if we wanted to voluntarily try and meet all of the regulations.

The UEB recommends:

Lyons biggest concern is the cost of secondary production meters. We currently have 20 solar DG systems in place and 10 more in the process of installation. Who will pay for these meters. If the meters cost \$500 and another \$500 to install, that is \$30,000 for already installed systems.

The State of Colorado has mandated that Utilities not charge more than \$500 for the permitting and installation of meters for solar systems. We have already had this reviewed by our legal council and Lyons has already paid back money on solar installation charges.

Lyons peak demand as listed on our MEAN bills falls at 9 PM at least 10 out of 12 months. Our DG systems are not producing any electricity at this time. Many of the customers we have spoken with can get a report from their solar installer documenting ????. Would knowing that our peak demand is at 9 PM and supplying MEAN with the data that customers are already receiving be sufficient.

There was no warning or time for utilities to prepare and implement code to handle the additional expenses from secondary production meters. This policy implements new reporting requirements and costs without any notice or ability to mitigate, manage or plan for them.

Can we get real-time monitoring on our demand?

Discussion on Recently Passed MEAN Distributed Generation Policy

A new distributed generation policy was passed at the May 2016 MEAN quarterly board meeting. This policy factors in solar production in the calculation of peak demands used in the allocation of the Fixed Cost of Recovery Charge (FCRC) and transmission charges among member utilities. The policy grandfathered in existing solar systems for the purposes of allocating FCRCs but may not be grandfathered in for the allocation of transmission charges.

The FCRC is what MEAN charges each member utility in order to pay for fixed costs. It is prorated for each utility based on the sum of the hourly peak electric demand of the utility for each of the previous 36 months. The date, time, and kW's used in the hourly peak is printed on each month's MEAN bill. It is recalculated once per year, approved at the January quarterly MEAN meeting, and becomes effective the following April 1st (MEAN new fiscal year). So although the new Distributed Generation policy was passed in May 2016 it will not affect Lyons portion of the MEAN FCRC until April 1, 2017.

A key factor in the allocation of charges is whether a production meter is installed on the distributed generation (e.g. solar) system. If a production meter is installed it is likely that Lyons will see no increase in its FCRC allocation since the current peak is generally around 9 pm when the sun is not shining. Currently an issue could arise in those situations where a meter is not installed on ungrandfathered systems in that the new policy calls for the maximum capacity of the system to be used in the calculation of peak demand. The new policy is called interim with the understanding that changes would be required in order to facilitate implementation. Calculation of peak demand in absence of a meter is a prime area where change is likely.

To get a fairly accurate estimate of peak demand in hourly intervals all a utility would really need is to have a few metered solar systems with the remaining having estimated capacity. The ratio of actual kWhs to estimated system capacity of the metered systems could then be used to calculate the peak kWh for all the unmetered solar systems. Three metered systems may be enough. There are a number of applications that calculate likely solar generation over the course of a year factoring in variables such as location, weather, orientation of panels, etc. It is routine for a solar installer to provide this information to their customer. Lyons should require this information prior to passing inspection. Use of the metered system's data would factor in the actual weather experienced and time of day into the calculation of the of the likely kWh demand experienced during each hour of the day. The metered systems average yield would periodically have to be compared to it's estimated yield to ensure it's estimate is accurate. It would be best if the metered systems had no trees and were oriented south to provide the most accurate measure of current hourly solar radiation and weather conditions. MEAN should be open to adopting a policy allowing estimated production for solar systems to reduce costs of metering for member utilities.

If MEAN does not adapt its policy to allow Lyons to estimate solar production or Lyons does not provide timely data to MEAN their could be additional costs involved. Those costs depend on how other utilities respond. If all other MEAN utilities have the same relative amount of new solar installed and report the same as Lyons then there will be no difference in the allocation of the FCRCs. Differences would arise if Lyons had higher ratio of new installed solar systems than other utilities or if Lyons failed to report but other utilities did.

For example if ten additional Lyons residences installed 5 kW systems each then the theoretical maximum output of the ten new systems is 50 kW per hour. If no other utilities added new systems then Lyons additional share of the MEAN FCRC would be \$8,171 per year. To calculate this note that Lyons share of MEAN's 2016 FCRC of \$42,154,051 was \$364,740 and Lyons average monthly hour peak demand is 2,212 kW. Realistically though the 50kW per hour should be lower since solar systems only produce at most 78 percent of their rated value in the Lyons area. In this case if no other utilities added new systems then Lyons additional share of the MEAN FCRC would be \$6,374 per year. Note that although a relatively low amount over all this is \$647.40 per year per installed solar system. Note again though that this is a worst case scenario and that if Lyons provided data for additional production of zero kWh at 9 pm at night then Lyons additional cost would be zero or Lyons FCRC may be reduced with other utilities having to pay additional fees for their new solar installations.

Not included in this discussion are the additional costs associated with Lyons share of WAPA LAP transmissions cost. It is projected that the total Lyons electric transmission costs for 2016 will be \$105,654. This is less than a third of the annual MEAN FCRC of \$364,740. Additional research is required to understand how these transmission costs will be affected by the new MEAN Distributed Generation policy.

Another concern to Lyons may be the current net metering policy. Lyons solar system generation is subsidized by the granting of retail rates for all solar generated that a customer uses. Although Lyons has a base fee, it does not cover all fixed costs such as the MEAN FCRC, debt service, administration, maintenance, capital expenditures, etc. Most of these fixed costs are rolled into the price of the retail rates. Unlike MEAN Lyons currently does not have the capability to identify customer peak demand charges and therefore uses electricity usage as an approximation. Based on the spreadsheet used to calculate the 2015 and 2016 electric budgets adding 10 additional 5 kW solar systems would cost Lyons about \$5,654 of revenue per year. Note that these 10 additional systems represent less than 0.6 percent of Lyons electricity usage and that every 10 percent of solar adoption would result in \$94,241 annual lost revenue.



Rural Energy Savings Program (RESP)

What does this program do?

The Rural Energy Savings Program (RESP) provides loans to entities that agree to make affordable loans to help consumers implement cost-effective, energy efficiency measures.

This new program, authorized by Congress in the 2014 Farm Bill, fulfills an important component of President Obama's **Climate Action Plan** to build a cleaner and more sustainable domestic energy sector for future generations. RESP will help lower energy bills for rural families and businesses and will reduce barriers to investment in energy efficiency projects or activities.

Who may apply for this program?

Eligible applicants include current and former Rural Utilities Service (RUS) borrowers, subsidiaries of current or former RUS borrowers, and entities that provide retail electric service in rural areas.

What are the terms of the loans?

- Up to 20 years at a 0 percent interest rate
- Up to 3 percent interest rate for relending to end users qualified consumers, for up to 10 years
- Up to 4 percent of the loan total may be used for startup costs

What is an eligible area?

We encourage you to contact us to determine whether your program would serve an eligible rural area.

How may funds be used?

Funds may be used for the purpose of implementing energy efficiency measures to decrease energy use or costs for rural families and small businesses.

How is RESP different from the Energy Efficiency and Conservation Loan Program (EECLP)?

- RESP offers a lower-cost financing option and a 0 percent interest rate;
- RESP also has a broader pool of eligible borrowers (utilities, nonprofit organizations, municipalities and states) while EECLP program borrowers are limited to utilities that serve rural areas;
- RESP offers longer loan terms: 20 years versus 15 years for EECLP loans.

How do we get started?

Applications for the RESP program will be accepted on a first-come, first-served basis until funds are depleted. To be considered for funding, applicants should submit a letter of intent to RESP@wdc.usda.gov. More information is available in the funding announcement in the **Federal Register**.

Who can answer questions?

Contact Titilayo Ogunyale at titilayo.ogunyale@wdc.usda.gov

What law governs this program?

These loans are made available under the authority of section 6407 of the Farm Security and Rural Investment Act of 2002 (7 U. S.C. 8107a) (Section 6407).

Why does USDA Rural Development do this?

USDA offers a variety of financing options to expand efforts to help rural communities save money, reduce the need to purchase or generate energy, reduce emissions from the generation of electricity, and help strengthen rural economies through job creation for energy efficiency and conservation projects.

NOTE: Because citations and other information may be subject to change please always consult the program instructions listed in the section above titled "What Law Governs this Program?" You may also contact [your local office](#) for assistance. You will find additional forms, resources, and program information at www.rd.usda.gov. *USDA is an equal opportunity provider, employer, and lender.*

Sample Letter of Intent

Please Submit Letter of Intent VIA Email to: RESP@WDC.USDA.GOV

[Date]

Mr. Christopher A. McLean

Assistant Administrator, Electric Program

Rural Utilities Service

1400 Independence Avenue, SW

Stop 1560

Washington, DC 20250-1560

RE: Intent to Apply for a Rural Energy Savings Program Loan

This letter confirms that **[Name of the eligible entity]** intends to seek a Rural Energy Savings Program loan from the Rural Utilities Service pursuant to the Notice of Solicitation for Applications (NOSA) for Fiscal Year 2016 (FY2016) published in the Federal Register **81 FR 40262** on June 21, 2016. **[Name of the eligible entity]** hereby represents that it meets all the requirements as specified in the NOSA and herewith submits the mandatory information required to comply with the first step of the loan application process.

[Name of the eligible entity] intends to submit a complete application on or before the due date specified in the NOSA for step-2 of the process and commits to diligently collaborate with the RUS General Field Representative to complete the application in a timely manner. **[Name of the eligible entity]** acknowledges that RUS may not consider our loan application complete (Step-2) if we fail to provide the information requested by RUS in its prescreening process (Step-1).

Applicant's Profile and Point of Contact

[Name of the eligible entity] is a **[legal status of the entity (E.g., Corporation, LLC, Cooperative, etc.)]** organized under the laws of **[State or jurisdiction]**, on **[date on which the entity was established]** with its principal place of business located in **[address]**. The DUN and Bradstreet (D&B) DUNS number for **[eligible entity]** is **[DUNS/Bradstreet number]** and our tax identification number is **[eligible entity's tax ID number]**. **[Name of the eligible entity]** is **[current or will be a new]** RUS borrower. **[Applicants that once were RUS borrowers please specify the date of the last transaction with RUS].**

[Name of the eligible entity] serves **[counties or areas served by the eligible entity]**, with population of **[population of the area]**¹. **[Name of the eligible entity]** has net assets in the amount of **[amount of net assets value]**. It is hereby affirmed that **[Name of the eligible entity]** has **[specify if eligible entity has ever been in receivership or bankruptcy or is under a workout agreement over the last 10 years]**. **[Name of the eligible entity]** holds operating reserves in the amount of **[amount of operating reserves]**. A copy of **[Name of the eligible entity]** balance sheet for the last 3 years is submitted with this letter of intent. **[Name of eligible entity]** intends to be the legal borrower or intends that the legal borrower will be a wholly owned and controlled subsidiary **[specify which]**.

The point of contact during the application process will be **[name of the point of contact]**, **[position at the eligible entity]**, who has been duly authorized to carry out the necessary actions to complete the RESP loan application. **[Name of the point of contact]** can be contacted at **[address, phone number, and email address]**. Additional information about **[Name of the eligible entity]** is available at **[web site address]**.

Project Description

[Name of the eligible entity] seeks an RESP loan in the amount of **[specify the total loan amount]** to carry out a relending program to implement energy efficiency measures to qualified consumers within **[identify the eligible entity's service territory, (e.g., County)]**.

Proceeds from the RESP loan will be used to implement a **[describe the nature and scope of the loan program to the qualified consumers²]**. **[Name of the eligible entity]** anticipates that the following staff **[identify the credentials of each one of the staff members that will be working on the project]** will be involved in the implementation of the relending program for energy efficiency.

Lastly, **[Name of the eligible entity]** commits to immediately notify RUS in writing should we decide to withdraw from consideration for the RESP loan before submitting the complete application.

Sincerely,

[General Manager/ CEO of the eligible entity]

Enclosures

¹ The applicant will need to identify its service area by its service area map and identify whether it serves customers in all or part of the population within the town or city and/or county boundaries. Information needs to be provided as to the extent it serves all or part of the population within the town or city and/or county boundaries. The applicant will need to identify/state/list how many meters it serves its customers with, within its service area. If the service area of proposed borrower extends beyond the town or city and/or county boundary, the number of meters within each of the service boundaries needs to be stated/listed.

² Project description must not exceed 5 pages. Refer to the NOSA for details.

I. PROJECT BACKGROUND, UNDERSTANDING AND GOALS

A. Background

The Town of Lyons was awarded a Community Development Block Grant – Disaster Recovery (CDBG-DR) through the State of Colorado for evaluation of the electrical capital Improvements and cost of service in and around the Town of Lyons. The Town of Lyons is the municipal energy provider for the area and purchases power from Municipal Energy Association of Nebraska (MEAN) with a substation located below Western Area Power Authority (WAPA) transmission lines east of Town. The Town's substation is approximately 7 miles east of Town with an underground feeder to Town. The Town's distribution system is a combination of above and below grade systems.

Previous studies were conducted and will be provided as reference documents. The selected consultant and team will also be provided with record documents, some access to billing records and use data.

Key and Salient Items from Grant Application and Town Requirements

The purpose and scope of this plan is to create a master Rate Study Document with supporting spreadsheets that provides for a working document for the Town to enable ongoing management of electric systems, plan for capital improvements and understand options for energy provisions moving forward, focused on rate structures. The deliverable will be a complete Cost of Service (Rate) Study that includes the analysis, plans and recommendations, provisions for standards and codes and budgets for the systems necessary to provide a safe, sustainable and resilient Town electrical infrastructure noted above and other information and findings while working through the process. The selected team will be working with area partners such as Local Boards and Commissions, Advisory Groups, and Town Staff.

B. Understanding

The Town of Lyons expects to contract with one team. The projected value of this contract is between \$35,000 and \$40,000 for the final negotiated scope of work. The consultant will be completing a report and supporting data to enable the Town to review cost of power and projections for future increases and create a working document and spreadsheets for the Town to implement the plans and recommendations moving forward, involving rate decisions. The working documents generated from this study will allow the Town Staff to include various levels of capital improvements into the rate structure analysis to assist with determining long term capital needs and/or financing requirements.

C. Goals

The Town will work with the Consulting team to determine the final extent of the work necessary to complete this plan. The goal is to create a meaningful plan with supporting documents and spreadsheets that the Town can utilize to implement the plans now and into the future. It is anticipated that this study will include some or all of the following elements:

- Verify the service area and adjacent providers to the Town;
- Identify issues and research historic issues;
- Review Contracts for Service in place and provide recommendations;
- Review past cost of service rate studies;
- Prepare a rate study with working documents in MS Excel format.

This project will incorporate strategies outlined in the **Town of Lyons Recovery Action Plan (LRAP)**, **Lyons Environmental Sustainability Action Plan (LESAP)** and **Sustainable River Corridor Action Plan (SRCAP)**, all of which have goals for increased resiliency and sustainability, as well as other strategies. Completion of this project will result in the ability for the Town to move forward with implementation of rate adjustments, budgeting and capital Improvements for the Town and surrounding areas, including the future planned expansion areas. The effort will lead the way in the Town's ability to set forth a resilient infrastructure and provide the ability to anticipate, absorb, adapt to, and/or rapidly recover from a potentially disruptive event. The information compiled will assist the Town with ways to create and/or continue to put in place a robust, resourceful infrastructure system that is capable of rapid recovery.

Metrics provide a means to periodically measure various components of the program. Such metrics are also commonly referred to as "key performance indicators". Within the Plan, quantitative indicators include alternate systems studies, draft standards and draft and final reports.

This project implements the desires of the Public Works, Planning, Town Engineer and Administration to have this useful tool on hand and in place. This project will provide the Town with the ability to rely on its own resources when addressing planning area expansions. The objectives of the project also provide the tools to collaboratively plan for expansion of the Town and rapidly assess existing hazards, perceived hazards, environmental conditions and provide economic analysis of infrastructure and other critical planning aspects of the Town. The Town's Utility and Engineering Board, as established by the elected Board of Trustees, has identified this as a critical need for the Town.

This plan will be a sub-set of the necessary elements and plans for identifying economic related issues and provide a means for understanding potential issues related to economic development and how to focus efforts on implementation based on economic drivers such as new businesses or re-development.

II. SCOPE OF WORK

- Review Lyons Electric (LE) historical revenue, expenditures (including both operating and capital), bulk power purchases and debt and provide a brief summary of historical trends.
- Review existing purchase contracts and attachments; evaluate differences between historical purchasing and current purchasing and effect on rate structure.
- Starting with Fiscal Year 2014 (budgeted), identify revenue requirements over a ten year planning period through 2023. This analysis shall include a projection of revenue, expenditures (including both operating and capital), power purchases (including any future projected load increases/decreases) and any future bonding requirements of the LE as it relates to future capital improvement projects. Include an analysis projecting flood recovery and the impacts of the loss of revenue and customers post-flood. This analysis shall also include costs associated with meeting desired Renewable Portfolio Standard benchmarks through the planning period.
- The revenue requirement analysis shall include detailed assumptions with respect to forecasted cost increases (i.e., employee costs, supplies/materials, bulk power, etc.) and staggered effects of re-establishment of population base post-flood; include a detailed projection of electric sales and load information by rate class over the planning period, including assumptions used to calculate said information; calculate debt service coverage ratios and any deficiencies associated therewith based on projected net revenues during the planning period; identify minimum cash reserve requirements and determine any deficiencies associated therewith; be prepared in Microsoft Excel and be made available to the Town Staff for future internal use. Proposers shall train Town staff on the use of the revenue requirement model;
- The revenue requirement, its assumptions and final conclusions will be compiled into a draft report for presentation to Town staff, Utility and Engineering Board, Sustainable Futures Commission. A final report will then be prepared and presented to the Town Board of Trustees.
- Review current customer classes and recommend any alterations to existing customer class definitions and/or expansion/reduction/combination of the number of customer classes.
- Propose appropriate base charges related to the Capital Improvement Plan being developed under a separate contract that considers impact fees (aka connection charge, community development

fee, etc.) related to new customer electric connection that provide the necessary revenue stream for capital improvements while complying with Colorado legal precedents for such fees.

- Evaluate present base and usage charges for the different customer classes (residential, commercial, low income, etc.) and advise on changes. Specifically, what is the role of base charge versus usage charge? How are each related to annual expenses? Consider the power costs from MEAN and WAPA, maintenance, billing, administration etc.
- In consideration of relevant examples, advise how Town of Lyons municipal use of electricity should be billed and paid from various Town departments to the Utility.
- Evaluate the Town's approach to customer-generation of power (i.e., solar) and advise on trends of cost and installation in the industry for small towns like Lyons.
- Develop a plan for maintenance and service duties, considering both public works efforts versus outside contracted services. This plan should include worksheets, tracking sheets and other documents and forms for the Town to include in an operations manual.
- Develop and provide a financial model with which town budgets and rate changes can be evaluated and compared.
- Advise whether Lyons Electric is a viable and sustainable entity as compared to selling it or joining with a larger entity.
- Conduct a comprehensive cost of service study to determine the cost of serving each customer class including determining cost allocators and allocating functionalized costs by customer class. Proposer will use industry accepted methodologies for allocating costs to various classes of customers. Identify the cost of each rate component for each customer class as applicable (i.e., system access, energy/commodity, demand). Consideration should also be given to those customers currently using solar to reduce their overall load.
- Proposer shall structure a proposed rate schedule on the basic premise that each customer should be classified and served under a schedule that will cover all the costs of his/her service plus a reasonable margin for proper operating reserves and contributions to general city government. Proposed rate schedules will include establishing an updated base power cost for the LE to include in the current energy cost adjustment formula. Proposed rate schedules must classify each customer into the fewest possible reasonable classifications that are agreed upon by the Town and representative of the current structure.
- For proposed rate schedules, proposer shall provide a sampling of a minimum of 3 customers per classification showing the difference of charges between existing and proposed rates by fiscal year for the proposed period(s) of adjustment.
- Considering the existing and final recommended rate structure, provide a comparative analysis of average rates charged by MEAN, XCEL, NMPP.
- The final rate study model shall be prepared in Microsoft Excel and be made available to Town Staff for future internal use. Proposers shall train Town staff on the use of the model which should be designed in such a way as to take into account alternative scenarios.
- In cooperation with the LE and Town staff, provide information and assistance as it pertains to any statutes/legislation which could have a potential impact on the proposed rate structure.

- Meet or confer with staff and/or other consultants as needed and attend all public meetings, hearings and/or work sessions with the City Council and/or its Committees to present interim recommendations in an effort to obtain input and seek final approval for any needed rate adjustments.

Other General Elements Necessary to Complete the Scope of Work

Meeting and engaging with Town staff - In order to fully understand existing infrastructure and determine areas of concern within the town, the consultant team will need to meet extensively with town staff including public works, planning, finance, parks and recreation, sustainability, fire, ecology, public safety, etc.

Mapping – The Town of Lyons has limited mapping of the system. The planning/engineering team will need to review the available mapping and consider how they will utilize that mapping for analysis. Additional on the ground analysis will be necessary to map and analyze current infrastructure, including facilities on private property.

Coordination with other planning efforts – The Town is currently engaged in several planning, financing and infrastructure projects concurrent with this effort. These and all existing plans will need to be taken into consideration in this planning effort.

Reporting – The consultant team should provide a 33% review copy to town staff, a 75% draft plan for public comment and following an appropriate comment period a full report to be approved by the Utility and Engineering Board and the Board of Trustees. The final report and all enclosures, references and attachments shall fully address all items listed in the scope of work as well as feedback received from both Town staff and public comment.

Proposed System Improvements – The Town is working on a capital improvement plan that will feed information to this study. This study will set forth the basic analysis to allow the Town to implement those findings should that study not be completed prior to this one.

Sustainability– It is the Town's goal as set forth in the *Lyons Sustainability Action Plan* to include the desire to “Design and maintain a network of green infrastructure features”. The Town desires to implement low impact design solutions and integrated management practices that serve the needs of the town while improving quality of life, and lowering the impacts on town resources and the surrounding environment.

Resilience – The Plan needs to incorporate resiliency throughout all of its recommendations. Resiliency focuses on the ability of communities to rebound, positively adapt to, or thrive amidst changing conditions or challenges.

System Management Requirements – A summary of system requirements to maintain the highest order of efficiencies while minimizing ecological impact from the proposed improvements in order to accommodate future needs and generations well in to the future.

B. Project Requirements

General Requirements

- The consultant (and team) will be expected to provide a full range of services and accept project management responsibility at all levels.
- All work shall be completed using the latest Town of Lyons design and construction

The Nebraska Municipal Power Pool (NMPP) is the service organization of NMPP Energy. It provides services to nearly 200 member municipalities in a variety of energy and management areas. NMPP was formed in 1975 by 19 communities who worked together to achieve bargaining strength in the power industry.

Today, NMPP offers a full line of quality energy and utility services, including

- Distribution
- Management
- Computer services
- Energy research and development funds

NMPP is dedicated to enhancing local control and ensuring economic stability and guarding public ownership. Our members use creative ways to find solutions. They know they can count on each other as well as NMPP to achieve their goals. There are no pending plans to sell or merge NMPP.

E. Evaluation Criteria

#1. Company/Personnel Qualifications and Recent Experience

Please refer to pages 4-8, C. Minimum Mandatory Qualifications.

#2. Approach to Scope of Work, Project Control

NMPP's approach to the project is designed to meet Lyons's objectives while incorporating our prior experience in preparing utility retail rate studies for many other publicly-owned utilities in Iowa, Kansas, Nebraska, Nebraska and Wyoming. Our work plan is designed to meet the requirements and methodologies established by the American Public Power Association (APPA), regulatory agencies and public utility commissions.

Develop Test Year Sales and Power Purchase Requirements

NMPP will project future utility sales, number of customers, billing demands and revenue derived from projected sales. NMPP will work with Lyons staff to estimate power expenses to cover projected monthly usage and demands for normalized weather conditions. A five-year financial Pro Forma Excel[®] model will be developed. NMPP will discuss and include potential changes in loads, revenues, expenses, construction, borrowing and cash reserves and demand side programs as may be applicable. Sensitivity analyses will be conducted as warranted.

Development of Financial Plan (Pro Forma)

Development of a five-year financial plan, in the form of a Pro Forma is an important tool to ensure the utilities' financials metrics will remain within the Lyons's desired targets. The Pro Forma model's purpose is to:

- Project revenues and expenses over the five-year planning period and targets for net income,
- Identify long-term revenue and borrowing needs and a plan, if necessary, to phase in rate adjustments,
- Project cash balances of the utility and identify appropriate cash reserve requirements,
- Recommend standard operating minimum and 'Must Have' cash reserve formula for each utility,
- Identify the utility's ability to meet bond covenants specified in the ordinances and
- Perform sensitivity analysis on significant changes in wholesale power and gas costs, loss or gain of large loads, etc.

Develop Test Year Revenue Requirements

Test year revenue requirements' functionalization and allocation to rate classes will be completed on the embedded cost of service basis using each utility's most recent budgeted as the test year.

- **Expenses** - NMPP will review historic expenses and test year budget estimates and will discuss with management significant changes to exclude any non-recurring expenses from the test year projection.
- **Electric Power Supply and Water Production Projections** - Wholesale Power Supply and Water Production costs can represent between 60-90% of total operating expenses for municipal utilities. Municipal Energy Agency of Nebraska (MEAN) and Western Area Power Administration (WAPA) projections of power, and transmission costs will be used for the test year and projections of cost increases for the next five years. NMPP will analyze power allocations and assets and project them to the future.
- **Debt Service** - Based on review of bond issues and debt service schedules, the principle and interest expenses will be identified and incorporated into the analysis. The financial plan will compare results with bond ordinance requirements.
- **Return on Investment** - NMPP will discuss with management the level of appropriate rates of return based on industry and local needs and financial targets and Bond Ordinance requirements.

Develop Customer Class Demands and Allocation Factors

Load Profile Information: Load profile information identifies how customers use water, sewer, and electricity at various times of the day and seasons. Load data is critical to ensure the cost of

service analysis is accurate and defensible. NMPP will analyze information from the following sources:

- Time-of-use meter data from Lyons customers when available,
- Load research information available from other sources and NMPP data files,
- Analysis of substation feeders, and
- Our database of existing load research obtained from other utilities.

Development of Allocators:

The load profile information will be used to allocate revenue requirements as a proxy for cost-causation. Each class' contribution to the utilities' system peak day or hour is an important element. Various allocators will be developed using methodologies established by the American Public Power Association (APPA), regulatory agencies and public utility commissions. Allocators are developed on monthly, seasonal and annual basis and used to determine the customer, demand and commodity or energy-related costs for each customer class.

System Losses:

Losses can vary substantially depending on system leakage, loading and temperature. NMPP will estimate system losses using wholesale purchases and retail sales data to allocate the cost of losses in the distribution system.

Cost-Based Rate Elements:

The following cost-based rate elements will be determined for each class and used as a guide in rate design:

- Customer charge in \$/month, by meter size when applicable
- Seasonal \$/kW for demand metered rates, and
- Seasonal \$/billing units for demand for the commodity being delivered

Survey of Electric Rates:

NMPP will use The *NMPP Energy 2014 Typical Electric, Water and Wastewater Bill Survey* report to compare the Lyons's current and proposed rates for at least 10 utilities in the surrounding area. The rate survey will include residential, commercial and industrial type rates.

Rate Design:

Cost of service results are an important factor in design of each utility's rates for customers; however other factors must also be considered. NMPP will factor in the impact on customers as well as the social and environmental issues important to Lyons. NMPP will work with management and staff in achieving a satisfactory design of utility rates using cost of service study results as a guideline to move current rates toward cost of service levels while limiting the impact to customers.

NMPP will provide analysis of proposed rate impact with charts and graphs that illustrate the impact on bills at various usage levels and load factors. Summary tables by class and utility-wide *Current Rate Revenues to Allocated Cost of Service* and *Comparison of Current Revenues to Proposed Rates* will be presented in the reports.

Presentation of Studies Findings and Recommendations:

NMPP will prepare Preliminary and Final Reports and deliver these clear and concise reports of the findings and recommendations to the Lyons Board. NMPP project managers are skilled at explaining utility financials and rate objectives to rate-making groups and the public. This helps ensure decisions are based on the objectives set forth and backed by accurate data.

#3. Proposed Scope of Work

NMPP REPORTS TO LYONS

Details of certain reports for each utility are listed below:

Financial Pro Forma – A preliminary Pro Forma is provided to staff for input and discussion. The pro forma will be adjusted as needed to reflect changes in financial expectations and performance.

Executive Summary (ES) Report – A Preliminary Executive Summary report is provided to staff for input before it is presented to the Lyons Board. The ES report includes the five-year financial model's projected annual rate increases and the findings of the COS analysis where current revenues are compared to allocated costs. After the Board provides direction on level of rate increase, structure and allowed impacts, staff and NMPP proceed to design the rates for the next one or two years as directed. Draft Ordinances presented for approval are included in the final ES.

Rate Design and Ordinances / Schedules – Draft Rate Schedules, Ordinances or Resolutions are provided in Microsoft Word[®] formats for review and use as amended for Board consideration for approval.

OTHER DELIVERABLES

1. Electronic copies of the preliminary executive summary and the initial electric Cost of Service Study which includes:
 - Executive summary discussion for each utility related to
 - Financial Pro Forma models and revenue proof and rate design models for each utility
 - One or two year rate design, bill impacts

- Bill comparisons to neighboring utility systems as directed by staff
 - Rate ordinances or resolutions for each utility or combined as required
2. Revenue proof of current and proposed rate revenues, a review of 'payment of In- Lieu-of Tax' and franchise fee recovery from rates.
 3. Review of capital construction projects funded from revenues or borrowing and a discussion of specific renewals and replacement projects
 4. Recommended minimum cash reserve policy, the results of which are presented in the executive summary.

#4. Project Control

Our experience with municipal services agreements allows us to conduct a cost effective and efficient study. Our goal for Lyons is to have rates designed and implemented 60-90 days after all of the requested data has been collected from town staff.

MEETINGS AND PRESENTATIONS

NMPP will plan several meetings, conference calls and email correspondence during the course of the study. The following meetings are anticipated in a manner that will achieve the completion of the full scope of work in approximately 60-90 days from when NMPP has received all data initially requested, however NMPP will strive to work within the town's preferred timeline if needed:

1. An initial conference call meeting to clarify scope of services such as which utilities need attention first and problem areas as well as expectations of the Town Staff and Lyons Board if desired. This may involve on-site fieldwork. NMPP will send a data request and discuss questions from staff via conference calls to assure the necessary data is recovered in approximately 30 days.
2. NMPP reviews the data received and verifies its reasonableness, correct interpretation, content and application (email and conference calls).
3. Review of financial plan (Pro Forma) results with staff – including direction on what to include in the Preliminary Executive Summary reports (email and conference calls)
4. Review of overall study progress update (email and conference calls)
5. Review Preliminary Executive Summary reports with management (email and conference calls)
6. Present a Preliminary Executive Summary to Lyons Board and seek rate design direction.
7. Design rates for first two years as directed by the Board and present the final report and draft ordinance to the staff for review and presentation to Board.

8. NMPP will be available for additional presentations or expanded scope of work as requested by the Board and at an additional cost to cover extra time and/or travel.

Costs

Service	Total Value of Services (per Two-Year Study or Update Study)	Current Municipal Energy Agency of Nebraska ("MEAN") Funding for Electric Study	Total Fee Due from Lyons (per Two-Year Study or Update Study)
Electric Cost of Service Study (Financial Plan, 2 Rate Designs and Ordinances, 1 Presentation)	\$35,600	50%	\$17,800

For this two-year study, payment is requested 50% upon delivery of the preliminary Executive Summary with findings and recommendations after presentation with the Board. Balance of payment requested after delivery of the Final report and Rate Ordinances.

This proposal includes three trips to Lyons including one presentation to Lyons' Board. Additional presentation trips related to this proposal outside of this will be billed at \$150 per hour for travel and presentation time, plus expenses (cost of rental car, lodging and meals).

Attachments:

- **Attachment A** – Illegal Alien Certificate
- **Attachment B** – Proposal Acknowledgment
- **Attachment C** – Sample Agreement

6. Proposed Scope of Work

EPSIM's goal is to provide the Town's Electric Utility with the planning tools necessary for creating a long term vision of the utility's financial sustainability. Given the budget constraints, EPSIM's proposal entails tasks as described below. Any effort not specifically included in the following scope is not part of EPSIM's proposal under the proposed budget.

I. Cost of Service Study

The Town of Lyons will leverage two of EPSIM's proprietary utility planning tools. EPSIM's effort will focus on updating the following models with the Town's data:

- **LOAD FORECAST MODEL**, with a maximum of five retail customer classes. This model, in MS Excel format, takes hourly load data (8760s) by retail class (maximum five classes) with varying voltage services (secondary, primary and transmission levels), and annual load change forecasts to derive the Town's on- and off-peak wholesale load, corrected for distribution losses. The load model feeds into the financial model.
- **FINANCIAL MODEL**, takes numerous other inputs, including detailed operation expenses (OPEX) and capital expenditures (CAPEX), depreciation parameters, taxable and non-taxable bond parameters, wholesale energy cost forecast, allocation of cost by causation, to project monthly financial metrics over 25 years. Resulting metrics from the financial model include annual Cost of Services on a revenue (utility accounting) and cash basis, Debt Service Coverage Ratio, cumulative reserve, cost allocation, and average rate by customer class.

Specifically, EPSIM's proposed scope entails:

- Review the following:
 - Lyons Electric (LE) historical revenue,
 - Expenditures (including both operating and capital),
 - Bulk power purchases and debt
 - Brief summary of historical trends
- Review existing wholesale purchase contracts and attachments;
 - Evaluate differences between historical purchasing and current purchasing
- 10-year Revenue Requirement projection: 2014 to 2023
 - Load increase / decrease projection
 - Revenues, expenditures (OPEX and CAPEX), power purchases and bonds
 - Flood-related: recovery, loss of customers
 - Cost to meet RPS

- Develop Cost of Services model
 - Detailed assumption of cost increase: Staffing, Supplies, materials, Bulk Power
 - Debt Service Coverage Ratio, identify deficiencies, identify minimum cash reserve
 - Advise on sustainability vs. sale of utility
- Detailed projection of electric sales and loads by customer class
- Train Town staff on use of Revenue Requirement model
- Review current customer classes, recommend any changes
- Review municipal use of electricity and its billing
- Review Town's approach to customer DG (Solar), trends of costs and installation
- Summarize assumption and final recommendations in a draft report
 - 33 percent review, 75 percent draft, final report
 - Present draft report to Town staff, Utility and Engineering Board, Sustainable Futures Commission.
 - Present final report to Town Board of Trustees

If time and budget allow, EPSIM will add several task items currently excluded from the proposed scope, including a **RETAIL RATE MODEL**, where retail customer cost allocations can be collected by a combination of fixed charges, demand charges and seasonal Time Of Use (TOU) energy charges. The Retail Rate Model produces a sample customer invoice for different retail classes.

a) Cost of Services and Rates Study Deliverables include:

The draft and final reports will be limited in scope and substance due to the budget limitation. We believe the real value of EPSIM's effort will lie in the delivery of planning tools rather than a static report.

The main deliverable will be the two model files – Load and Cost of Services - which will provide the Town staff with proven and dynamic planning tools. The models remain EPSIM's property; the Town of Lyons will be granted a non-exclusive perpetual license to the models delivered by EPSIM, for the sole purpose of planning the Town's electric operations.

THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The Town of Lyons acknowledges that the models disclosed to it by EPSIM in connection with this engagement constitutes EPSIM's proprietary

information and trade secrets. Under no circumstance shall the Town sell or give an electronic copy of the model files, in whole or part, to any entity outside of the Town's Public Services Department, or permit another through disclosure of information to that party to obtain an electronic copy of the models, in whole or in part, without EPSIM's prior written consent and its interests, including adequate and reasonable compensation as agreed to by the Parties in writing signed by both Parties.

b) Summary of rates and expenses to complete scope

EPSIM will bill on a Time and client-approved Expense basis. EPSIM's rates are:

- Nils Tellier, PE: \$160 per hour
- Richard Tazelaar, MBA: \$130 per hour

Absent special requests from the Town, EPSIM does not anticipate any travel, special staffing, additional software or equipment. Accordingly our budget does not include any expense.

EPSIM has budgeted 272 man-hours with the following breakdown:

- Historic operations review: 68 hours
- Cost of Services study: 140 hours
- Project Management, meetings and final report: 64 hours

c) Exclusions from Proposed Scope of Work

Out of concern for the budget constraints, anything not specifically included in EPSIM's proposed Scope of Work above is deemed excluded. We would like to bring to the Town's attention the exclusions listed below, as they represent a compromise between the Town's desired Scope of Work as articulated in the RFP document and the stated budget.

- Review existing purchase contracts and attachments: effect on rate structure.
- Propose appropriate Base Charges for CIP for new customer connections.
- Using industry-accepted methodology, determine cost allocators by Customer class. Propose new rate schedule by customer class, consider customer Distributed Generation (DG).
- Develop a Retail Rate study
 - o Review base and Usage charges for existing customer classes
- Propose new rate schedule by customer class
 - o Update base power cost and current ECA formula
 - o Reduce the number of customer classes if agreed by Town Board
 - o Provide a sampling cost of 3 customers per class showing annual differences between existing and proposed rates.
 - o Compare existing and proposed rate structure against Xcel, MEAN and NMPP.

- Develop a plan for maintenance and service duties, considering both public works efforts versus outside contracted services. This plan should include worksheets, tracking sheets and other documents and forms for the Town to include in an operations manual.
- In cooperation with the LE and Town staff, provide information and assistance as it pertains to any statutes/legislation which could have a potential impact on the proposed rate structure.
- Meet or confer with staff and/or other consultants as needed and attend all public meetings, hearings and/or work sessions with the City Council and/or its Committees to present interim recommendations in an effort to obtain input and seek final approval for any needed rate adjustments.
- Additional on the ground analysis necessary to map and analyze current infrastructure, including facilities on private property.
- Any services by others (e.g.: legal, engineering)
- Any software license beyond MS Office 2010
- Training Town staff on MS Office or other software
- Any task, effort, service or deliverable not specifically included in the proposed Scope of Work.

7. Estimated Budget

I. Estimated Total Cost

The estimated total budget to complete the proposed Scope of Work is \$39,000, according to the following breakdown:

• Historical Operations Review:	\$ 9,700
• Cost of Services:	\$23,500
• Project Management, meetings, reports:	\$ 5,800

The budget is for information only. EPSIM will bill the Town of Lyons on a Time and Material basis, invoiced on a NET 15 days basis. Any expense will be first approved by the Town's Project Manager. EPSIM will promptly notify the Town's Project Manager if the budget must be exceeded.

We look forward to being of service to the Town of Lyons.