

Lyons Net Metering Recommended Changes

June 21, 2021

Jim Kerr, Chair
Utilities and Engineering Board (UEB)

Lyons Net Metering Installations

- Installations as of Dec 2020: 52
- Nameplate as of Dec 2020: 309 KW
- Projected Annual Production 2021: 493,749 kWhs
- Average Nameplate: 6 KW
- Average Annual Production: 9,495 kWhs
- Lyons Purchased Electric 2019 from the Municipal Energy Association of Nebraska (MEAN): 12,435,506 kWh
- Lyons Solar Percentage as of Dec 2020: 3.8%

Lyons Net Metering Policy

- Implemented in Feb 2013
- Credits excess solar electricity sent to the grid against electricity drawn from the grid at other times such as at night
- Excess kilowatt hours (kWhs) at the end of the month are added to the customers energy balance
- At the end of the calendar year the energy balance is reimbursed at the Town's wholesale rate
- Not governed by the Colorado Public Utilities Commission
- Policy is on a month to month basis that can be changed with 30 days notification
- On Oct 19, 2020 the BOT directed staff to revise the “Net Metering Contract” such that it is obvious that any new installations would not necessarily be grandfathered into the current policy. The “Customer-Owned Generation Interconnection Agreement” was updated in Nov 2020

EPSIM Town of Lyons Cost of Service Study December 8, 2016

- Executive Summary Recommendation:
 - "Reconsider Distributed Generation policies, particularly as it pertains to installed capacity allowance and Net-Metering rates."
- P49 - "As a word of caution, excessive solar development is not a sustainable policy as it can collapse the total load during the noon hours of the day; given that capacity and overhead costs still apply, the expectation of a Net-Metering credit from excess solar generation would either create a significant financial burden on retail accounts that do not have solar or, in the extreme, bankrupt the utility."

EPSIM Town of Lyons Cost of Service Study December 8, 2016

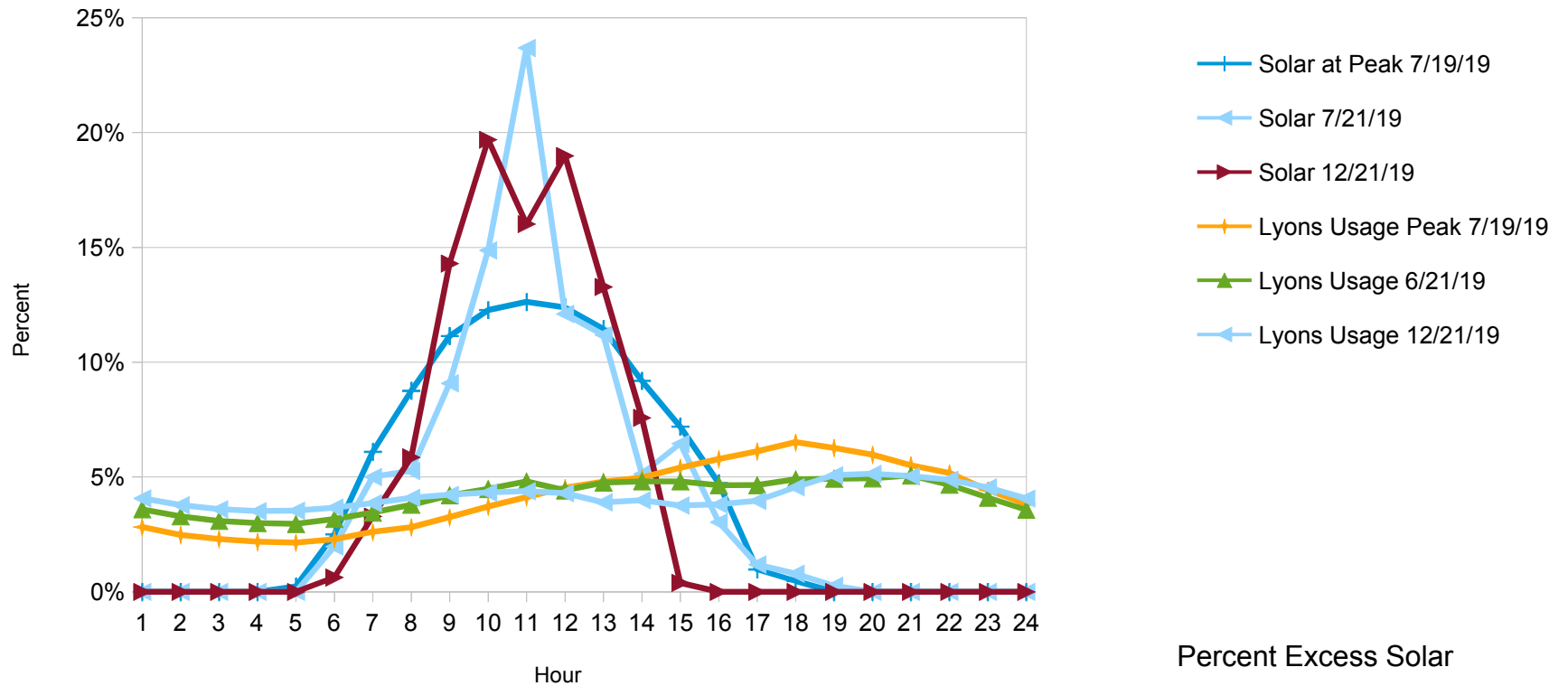
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- P63 "c) Limitations of Solar Net Metering
 - The development of distributed solar generation adds an additional rate element in the form of Net-Energy-Metering. Generally, solar generation occurs during the hours when the residences are empty, resulting in most of the generation exceeding the native load. By compensating the excess solar generation at the full retail price, the Town implicitly makes two debatable statements:
 - Capacity costs, utility administration expenses and distribution/maintenance expenses do not have enough value to ask the NEM customer to pay for their portion of these costs.
 - By receiving energy during the day and returning it after sunset at no additional charge, the community's utility grid could be misconstrued as a de-facto zero-cost, 100 percent efficient energy storage system."

UEB Recommended Changes

- For all new installations as of November 1, 2020:
 - Reimburse excess electricity sent to Town grid at the MEAN renewable wind energy rate – currently \$.043 per kWh
 - Charge a monthly production meter fee of \$2.50
- For all installations prior to November 1, 2020:
 - No change initially
 - Sunset to the new method starting January 2030

Lyons Percent Energy Usage and Solar Production



	Percent Excess Solar
Solar Peak 7/19/19	58%
Solar 6/21/19	54%
Solar 12/21/19	67%

Net Metering Lost Revenue

- Lyons Residential Rate: \$0.1275 per kWh
- MEAN Wind Power Rate: \$0.043 per kWh
- Net Metering Renewable Subsidy: \$0.0845 per kWh
- Solar Nameplate 2020: 309 KW
- Annual Lost Revenue Rooftop vs MEAN Wind: \$41,722
- Ave solar installation lost revenue per year: \$800
- Ave solar installation lost revenue over 20 years: \$16,000

Availability of MEAN Renewable Energy

- Wind: \$.043 per kWh – Currently fully subscribed but could request obtaining other member shares like Gunnison recently did to go 100% renewable
- Landfill Gas: \$.02175 per kWh – Pool not fully subscribed
- Spot Market: ? per kWh – Expected to be much less than Lyons retail rate. MEAN is purchasing some of Gunnison's renewable energy on the open market so they can be 100% renewable

Concern with UEB

Proposed Alternative to Net Metering

- Although Lyons can legally make the proposed change there was concern that political and or legal action could result since it deviates from Colorado laws for larger utilities
 - Industry direction is away from net metering
 - Grandfathering in existing installations greatly reduces the likelihood customer objections

Similar Example to UEB Proposed Alternative to Net Metering

- Loveland, Colorado Electric Self-Generation:
 - Energy Charge for electricity drawn from grid is higher than the Buyback Credit for excess solar electricity sent to grid
- Received complaint in November 2019 from solar customer requesting Lovement stop the implementation of the 2020 rate structure change for solar self-generators
- Apparently did not grandfather in existing customers

Recommendation

- Proceed with the UEB recommended changes to Net Metering by proceeding a first reading of the proposed ordinance