

# MEMORANDUM - Draft

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To: Sustainable Madison Committee

Date: April 27, 2018

Re: **Renewable Energy Credit Purchase and Sale Agreement Between OneEnergy, LLC and the City of Madison**

This document is a summary of a working group composed of the above-named members of the Sustainable Madison Committee (SMC). These individuals gathered at Ground Zero Coffee Shop on April 25<sup>th</sup> to review and discuss the merits of an offer extended to City of Madison to purchase Renewable Energy Credits (RECs) from solar arrays to be constructed by OneEnergy, a solar developer active in southern and western Wisconsin.

## Background

By way of background, OneEnergy recently fashioned an innovative REC-financed solar development package involving several Upper Midwest municipal electric utilities and Organic Valley, the farmer-owned organic food cooperative based in LaFarge. Under the terms of that partnership, Organic Valley will purchase REC's from 12 MW of solar generation, and provide in the process a critical layer of financing that will facilitate project construction. The REC output from these arrays will enable Organic Valley to offset 100% of its consumption with renewable energy. The OneEnergy/Organic Valley solar projects should be operational by mid-2019.

To finance a separate set of solar arrays, OneEnergy is proposing a similar contract involving another subset of Upper Midwest municipal utilities and the City of Madison as the REC purchase. has proposed a very similar arrangement. If the City enters into the REC Purchase and Sale agreement described below, it would be slightly larger than Organic Valley's commitment.

Here are the specific elements of the proposal from One Energy to the City of Madison.

## Facilities

Project location	MWdc	Expected in-service date	Expected Generation (Year 1 MWH)	Buyout Year
Argyle	1.1	6/1/2019	1,643	2023

Cumberland	3.4	6/1/2019	5,038	2020
Elroy	2.0	6/1/2019	2,836	2022
Fennimore	4.1	6/1/2019	6,291	2021
New Lisbon	3.4	6/1/2019	5,102	2019
Total	14		20,919	

## Assumptions

Cost of undiscounted REC's: \$4.75/MWH

Discount Rate: 6%

Annual degradation: 0.5%

After estimating 25 years of production at each facility, OneEnergy calculated the value of the REC's that each array would yield, and put together a financing package structured on a forward purchase model. This is very different from purchasing REC's on an annual basis from 2019 to 2044. Under a forward purchase, the City would purchase all 25 years of REC's up front. This approach enables the City to capture the value of a 6% discount rate spread over a 25-year period. The levelized cost of a 25-year forward purchase is substantially lower than it would be to purchase the same volume of RECs as they are generated each year.

OneEnergy's proposal also included a schedule for staggering the buyouts over a five-year period. Under this arrangement, the City would initiate acquisition of the prepaid RECs in 2019 and complete the transaction in 2023. Here is the schedule of payments:

New Lisbon - 2019	\$389,059
Cumberland - 2020	\$354,170
Fennimore - 2021	\$390,962
Elroy - 2022	\$170,308
Argyle - 2023	\$ 91,715
Total	\$1,396,224

When the 6% discount rate is applied, the levelized cost of this acquisition comes to \$1,396,214, or \$2.83/REC, a substantial reduction from the nominal rate of \$4.75/REC.

Under this arrangement the City will acquire an estimated 492,555 REC's over the 25-year period. The combined output from these arrays would start at 20,910 megawatt-hours (MWH) in Year 1 and decline to 18,540 MWH in Year 25. All the REC's produced from these five arrays until 2044 would flow to the City of Madison. If the City's electrical consumption remains constant during that period, this REC purchase would cover about 37% of it.

The electricity generated from these arrays will supply electricity to five municipal utilities in western Wisconsin. This supply of electricity will displace power that would normally be supplied from the utilities' wholesale provider. These utilities have no need for additional

supplies of renewable electricity, and thus have no objection to unbundling associated RECs for sale to entities who desire these attributes. The purchase price for the electricity alone is not sufficiently high to finance these projects, which means that absent a REC purchase and sale agreement, these arrays will not be constructed. There is no question that a City of Madison purchase of REC's will provide the level of additionality that will enable the City to fully capture their carbon reduction benefits.

The City Attorney's office has reviewed the proposal and requested some changes and additions to it. The developer has agreed to the changes requested by the City attorney, and the contract now complies with the City's procurement policies. Among the revisions agreed to is the following language regarding appropriation of funds:

*In the event the [Common] Council does make an adequate appropriation of funds during any fiscal year for the purchase of RECs during that fiscal year ("Non-Appropriation Event"), then (a) Seller shall not be obligated to deliver RECs during that fiscal year, excepting RECs generated by Facilities for which Buyer has completed a prepayment, (b) Buyer's obligation to make any payment shall be suspended until the end of the Non-Appropriation Event without any damages or penalties to Seller, and (c) Seller may, but is not obligated to, terminate this Agreement as it applies to facilities for which Buyer has not completed a Prepayment, without Payment of any damages or penalties to Buyer.*

There is also a provision addressing underperformance. Should a facility specified in the contract generate less than the Minimum Annual Quantity (defined as 95% of the expected generation amount after factoring degradation) during any fiscal year during the 25-year term, the Seller will compensate Buyer for the difference, at a value of \$4.75/REC. It is assumed that the City may receive surplus generation at no extra cost. This provision is the next best thing to a production guarantee.

The working group makes the following recommendation to the Sustainable Madison Committee.

**We have reviewed the term sheets and related documents pursuant to a Purchase and Sale Agreement of Renewable Energy Credits between OneEnergy, Inc., and the City of Madison. We find that (1) the acquisition of REC's through a 25-year forward purchase is a reasonable contract structure that would yield 14 MW of RECs to the City at an attractive price; (2) acquiring RECs from solar arrays in rural western Wisconsin will reduce greenhouse gas emissions from Wisconsin power plants; and (3), but for the city's purchase of RECs associated with the output from these arrays, this project will not proceed to construction. We ask the Sustainable Madison Committee to put forward a**

**resolution to authorize the City to purchase RECs from OneEnergy under the proposed contract, which will enable to the City to make substantial progress toward achieving its 100% renewable energy/net zero carbon goal in a cost-effective and timely manner.**