

Moab City Council Agenda Item
Meeting Date: February 8th, 2022

Title: Streetlight LED Conversion Plan

Presenter: Mila Dunbar-Irwin, Sustainability Director

Attachment(s): None. Presentation at meeting.

Recommended Motion: None. No action required.

Background/Summary: The City of Moab is in the final stages of entering into a contract with Rocky Mountain Power to convert all RMP-owned / City-paid streetlights to Dark Sky compliant LED luminaires. City staff have inventoried all streetlights and calculated the recommended light levels for the replacement fixtures based on Illumination Engineering Society (IES) standards.

IES standards for street lighting include two measurements - Uniformity and footcandles. Uniformity refers to the difference in lighting as a person travels down the street. If there were 100% uniformity the light on the whole street would be the same, and there would be no patches of dark or shadow in between lights. The current streetlight layout in Moab prevents the City from meeting the IES recommended standards for uniformity without adding poles, which is not contemplated at this time. Such uniformity may also not be desired by the community, and is not necessarily the ultimate goal.

The second IES standard is footcandles. This is the experienced illumination on the ground under the light, and is calculated based on the height of the pole, the brightness of the light, and the photometric pattern of the luminaire. *The proposed light levels for the streetlight conversion meet IES recommendations for footcandles according to the classification of the street.* Footcandle recommendations differ based on the level of use of the street - local, collector, or main. The City has a number of different pole heights scattered throughout town, so one level of light is not appropriate to meet footcandle recommendations everywhere.

There is no requirement that the City meet either IES recommendation, and as such, the Council may choose any combination of light levels they deem appropriate. City Staff chose the approach of meeting the IES footcandle illumination recommendations because the IES standards are designed to ensure both safety and

adequate lighting for the use. Rocky Mountain Power does not have the ability to order or install sample lights prior to the City-wide conversion.

All luminaires are a 3000K LED light and have a controlled, oblong photometric pattern with no uplight or glow. The product, which was chosen by Rocky Mountain Power, is the GE ERLC line. The spec sheets have been in previous City Council packets and are available on-line. All are Dark Sky compliant.