



# Dark Sky Assessment GMP Proposal

Submitted By:  
Iconergy, Ltd.  
1905 Sherman Street  
Denver, Colorado 80203  
September 15, 2021

**Contents**

Project Overview:..... 3

Detailed Base Scope of Service: ..... 3

Cost of Work.....5

Summary: ..... 5

Appendix A: Table 1 – Fixtures..... 6

**Project:**

Clear Creek County Dark Sky Retrofit

**Attn:**

Beth Luther, MSH, CAP

Clear Creek County

PH: 303-679-2312

FX: 303-679-2440

bluther@co.clear-creek.co.us

## Project Overview:

At the request of Clear Creek County (CCC), Iconergy, Ltd. has provided a GMP proposal for upgrades to the county's exterior lighting with the objective of meeting the International Dark Sky Association's (IDA) Seal of Approval. Dark Sky compliance has become a fundamental basis of sound lighting design and, as such, Dark Sky compliance is part of Iconergy's base design criteria for its retrofit projects. Iconergy is thrilled to assist CCC in achieving its goal and commitment to reducing its effects on the natural environment.

With proper consideration of shielding, distribution and color temperature, the proposed scope of work will mitigate the effects that Clear Creek County's current outdoor lighting has on the health of both wildlife and humans; this will be achieved while maintaining safe exterior areas. The only exception to Iconergy's ability to meet Dark Sky compliance is where there are documented safety standards that may conflict with Dark Sky standards (i.e. flood lights). These fixtures will however meet IDA's color temperature requirements of 3000k or higher. Iconergy recommends that these fixtures be angled at a downward angle below the horizon to reduce the amount of upward glare and unnecessary lighting of surrounding areas. Other alternatives to flood lights will also be explored during the project development. Some additional fixtures, as part of the retrofit, may not necessarily have the IDA Seal of Approval, but will meet all of the requirements. Earlier this month, CCC confirmed that such fixtures will be acceptable to the County.

Per the audit performed, Iconergy will provide the retrofit of approximately 159 fixtures, 107 of previously EPC installed fixtures and 52 fixtures that were not part of the previous EPC work performed by Iconergy (see Appendix A: Table 1 - Fixtures.). The scope of this work will take approximately 3 weeks of installation and will be performed based on lead times of materials and weather conditions. Further investigation is required on fixtures listed as *unknown* replacement required. Investigation will be performed during the development of the project and included in the scope as required.

## Detailed Base Scope of Service:

Iconergy shall provide the following services as part of the GMP scope for the purpose of replacing fixtures within Clear Creek County's jurisdiction in the areas listed in Table 1 (see Appendix A) with the objective of meeting Dark Sky Compliance.

- Electrical engineering services: Building by building fixture list for Owner review and permitting, as required, through Clear Creek County.

- Project management: Provide complete project management support inclusive of OAC meetings, coordination, project administration, scheduling, budgeting, design review and closeout.
- Onsite Supervision: Provide onsite supervision over the duration of the project while contractors are onsite. Supervisor shall oversee all operations and ensure contractors are performing the work in a safe and professional fashion.
- Provide all insurance requirements in accordance with Clear Creek County standards.
- Provide a payment and performance bond.
- Include an Owner's reserve and contingency amount to be controlled by Clear Creek County, has been included at 5%.
- Secure all permitting as required.
- Commissioning of all new equipment and systems.
- Final as-built survey for Clear Creek County's records.
- All sanitary and waste disposal (dumpsters) have **not** been included in Iconergy's scope. It is assumed as with the current ongoing projects, CCC will provide temp toilets or use of current facilities as well as dumpster when required.
- All selective demolition and waste disposal for hazardous materials and recycling is included in this scope. This is a specialty disposal that will need to be performed by certified vendors. The general waste disposal is assumed to be provided by CCC.
- Retrofit/replacement of the listed fixtures per Appendix A: Table 1 - Fixtures. Please note, cost includes the price for only the listed fixtures noted "Non-EPC", but does include the labor and services for ALL listed fixtures. Iconergy will be replacing the "EPC Installed" fixtures as warranty work at no cost to the County.

## Cost of Work:

Table 1 - Construction GMP Summary						Revision Date:	13-Sep-21	
<b>Project:</b>	Clear Creek County Dark Sky Assement					<b>Budget Phase:</b>	Proposal	
<b>Scope of Work:</b>	Retrofit exterior lighting fixtures to Dark Sky Compliance							
<b>Description:</b>	Construction Budget Summary - GMP							
<b>A. PROJECT CONSTRUCTION COSTS</b>		<b>Mechanical</b>	<b>Electrical</b>	<b>EMCS</b>	<b>General</b>	<b>TOTAL</b>		
<b>1</b>	Mechanical					\$	-	
<b>2</b>	Electrical/Lighting		\$ 40,000			\$	40,000	
<b>3</b>	Building Automation Systems					\$	-	
<b>4</b>	Pre Construction					\$	3,984	
<b>5</b>	General Conditions					\$	2,175	
<b>Sub-Total:</b>		\$0	\$40,000	\$0	\$0			
<b>A1. SUB-TOTAL CONST. COST (1 thru 5) =</b>						\$	46,159	
<b>1</b>	Payment and Performance Bond <sup>1</sup>					\$	2,656	
<b>2</b>	Permits, Insurance					\$	2,075	
<b>A2. TOTAL CONSTRUCTION COST (A1+ 1 + 2) =</b>						\$	50,890	
<b>B.</b>	<b>PROFESSIONAL SERVICES</b>							
<b>1</b>	Investment Grade Audit					\$	-	
<b>2</b>	Design & Energy Engineering					\$	4,672	
<b>3</b>	Construction Management					\$	16,054	
<b>4</b>	Closeout, Commissioning & Training					\$	1,461	
<b>B2. TOTAL PROFESSIONAL SERVICES (1 thru 4) =</b>						\$	22,187	
<b>C. SUB-TOTAL DESIGN/BUILD CONST. COST (A2 + B2) =</b>						\$	73,077	
<b>D.</b>	<b>CONTINGENCY, FEES</b>							
<b>1</b>	Owner's Contingency	5.0%	D1 (%) x C Sub-Total			\$	3,654	
<b>2</b>	OH&P	15.0%	D1 (%) x C Sub-Total			\$	10,962	
<b>E.</b>	<b>PROJECT SUM (C+D) = E</b>						\$	87,693

Total Project Cost:  
\$87,693.00

## Summary:

We at Iconergy, Ltd. appreciate the opportunity to submit this proposal and we look forward to working with Clear Creek County on this project. As stated above, the pricing included in this proposal is to be considered as guaranteed maximum price (GMP). If you have any comments or need clarity about a line item in the attached estimate, please do not hesitate to ask.

Best Regards,

Lee Macke  
Project Manager  
Iconergy  
lmacke@iconergyCO.com

## Appendix A: Table 1 – Fixtures

Fixture Description	Count	Type	Location	EPC Installed?	Dark Sky Approved Fixture?	Manufacturer Shielding Available?	Replacement Required?
45W LED wallpack	1	Wallpack	Road and Bridge Brook Forest	Yes	No	No	Yes
30W LED flood	7	Flood	Road and Bridge Brookvale	Yes	No	No	Yes
LED wallpack	4	Wallpack	Road and Bridge Brookvale	No	No	Unknown	Unknown
40W LED wallpack	3	Wallpack	Transfer Station	Yes	No	No	Yes
25W LED flood	1	Flood	Transfer Station	Yes	No	No	Yes
25W LED wallpack	2	Wallpack	Transfer Station	Yes	No	No	Yes
40W LED wallpack	1	Wallpack	Sheriff's Maintenance Garage	Yes	No	Unknown	Unknown
25W LED wallpack	1	Wallpack	Sheriff's Maintenance Garage	Yes	No	Unknown	Unknown
Unknown wallpack	1	Wallpack	Sheriff's Maintenance Garage	No	No	Unknown	Unknown
75W LED wallpack	2	Wallpack	Road and Bridge Dumont	Yes	No	Unknown	Unknown
14W LED wall mount jelly jar	1	Decorative/wall mount	Road and Bridge Dumont	Yes	No	No	Yes
60W cobra head	1	Pole	Road and Bridge Dumont	Yes	No	Unknown	Unknown
8' 4L 15W LED	1	Decorative/wall mount	Road and Bridge Dumont	Yes	No	No	Yes
Globe light above door	1	Decorative/wall mount	Road and Bridge Dumont	No	No	No	Yes
Older pole light	3	Pole	Road and Bridge Dumont	No	No	No	Yes
LED wall mount	2	Decorative/wall mount	Road and Bridge Dumont	No	No	Unknown	Unknown
Wallpack	7	Wallpack	Emergency Services Building	No	No	No	Yes
Wall mount	1	Decorative/wall mount	Emergency Services Building	No	No	No	Yes
80W LED wallpack	1	Wallpack	Animal Shelter	Yes	No	No	Yes
60W LED Pole lights	4	Pole	Animal Shelter	Yes	No	No	Yes
Pole lights	2	Pole	Animal Shelter	No	No	Unknown	Unknown
Wallpack	3	Wallpack	Animal Shelter	No	No	No	Yes
Wall mount	3	Decorative/wall mount	Animal Shelter	No	No	No	Yes
Wall mount	1	Decorative/wall mount	Old Mormon Church	No	No	No	Yes
Parking lot pole light	2	Pole	Old Mormon Church	No	No	No	Yes
LED A19 wall mount or flood	11	Flood	Annex	Yes	No	No	Yes
Parking lot pole light	9	Pole	Annex	Yes	No	No	Yes
10W A19 LED decorative wall mount	1	Decorative/wall mount	County Lands	Yes	No	No	Yes
25W LED wallpack	2	Wallpack	DA Office	Yes	No	Unknown	Unknown
Decorative wall mount	1	Decorative/wall mount	Finance Building	No	No	No	Yes
LED flood light	2	Flood	Finance Building	No	No	Unknown	Unknown
Wall sconce	1	Decorative/wall mount	Finance Building	No	No	No	Yes
25W LED wallpack	3	Wallpack	Community Resource Center	Yes	No	No	Yes
30W LED wallpack	1	Wallpack	Community Resource Center	Yes	No	No	Yes
14W LED wall mount jelly jar	1	Decorative/wall mount	Community Resource Center	Yes	No	No	Yes
2L square flood light	5	Flood	Station 2A	No	No	Unknown	Unknown
2L square LED flood light	1	Flood	Jordan House	No	No	Unknown	Unknown
Decorative wall mount	3	Decorative/wall mount	Jordan House	No	No	No	Yes
2L PAR flood light	1	Flood	Jordan House	No	No	No	Yes
Wall mount jelly jar	1	Decorative/wall mount	Jordan House	No	No	No	Yes
LED wallpack		Wallpack	Jacob's House	No	No	Unknown	Unknown
Wall mount		Decorative/wall mount	Jacob's House	No	No	No	Yes
90W LED area pole mounted	31	Pole	Courthouse	Yes	No	No	Yes
25W LED wallpack	5	Wallpack	Courthouse	Yes	No	No	Yes
Bollards	7	Bollard	Courthouse	Yes	No	No	Yes
2L flood light	10	Flood	Courthouse	Yes	No	Unknown	Unknown
Wall mount above door	2	Decorative/wall mount	Courthouse	No	No	No	Yes
Other wall mount	5	Decorative/wall mount	Courthouse	No	No	No	Yes