BLACK HILLS POWER, INC.
d/b/a BLACK HILLS ENERGY
EL22-002

REQUEST DATE : 02/08/22

RESPONSE DATE : 02/22/22

REQUESTING PARTY: Staff

SDPUC Request No. 1.1:

Refer to the tariff pages filed in the docket. On the right hand side, it appears multiple rates have an (R) in that column but no rates changed for this filing. If no rates changed, remove the (R) from that column and refile the tariff page.

Response to SDPUC Request No. 1.1:

Please see Attachment SDPUC 1.1 – Amended Exhibit 1 – Clean and Legislative Tariffs. Black Hills Power will file this amended exhibit in the docket.

Attachments: Attachment SDPUC 1.1 – Amended Exhibit 1 – Clean and Legislative Tariffs

Responder: Kyle Komata

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SDPUC Request No. 1.2:

Going from a 9,500 Lumen HPSV option to a 5,000 Lumen LED option, will more lights need to be installed to get the same light coverage and brightness as the 9,500 Lumen option? If so, how many more lights and how much closer together will poles need to be?

Response to SDPUC Request No. 1.2:

It will not be necessary to add more lights or move poles in order to get the same light coverage when comparing a 5,000 Lumen LED fixture and a 9,500 Lumen HPSV fixture. HPSV and LED are two completely different lighting technologies, specifically in regard to how the light is projected. HPSV bulbs project light in all directions around the bulb surface (including up into the fixture itself), whereas with an LED the light energy is directed down and out towards the ground surface. With a more efficient light deployment, less lumens are needed to provide equivalent light coverage and this helps to reduce upward light pollution.

Attachments: None

Responder: Mike Pogany

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SDPUC Request No. 1.3:

Provide the installed fixture cost as well as the monthly O&M expense per fixture.

Response to SDPUC Request No. 1.3:

Based upon current costs, 40W LED lighting fixtures cost approximately $200, plus additional costs to complete a fully functional lighting fixture (wiring, poles, etc.), which are approximately $360. This results in a total estimated cost of $560 per installation.

O&M expenses per fixture are difficult to forecast. The fixtures are assumed to last the entire 100,000-hour life without needing replacement, but photo controls are expected to have a similar replacement cycle as HPSV lights. Until Black Hills fully converts to LED lighting, it is difficult for the Company to reliably estimate specific monthly O&M expenses. However, the Company anticipates a reduction in O&M expense per fixture.

Attachments: None

Responder: Kyle Komata

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RESPONSE DATE : 02/22/22

REQUESTING PARTY: Staff

SDPUC Request No. 1.4:

Provide the calculations to justify the $10.74 charge for the LED lighting rate.

Response to SDPUC Request No. 1.4:

The LED lighting fixtures installed by the Company are approximately $84 more expensive per fixture than equivalent HPSV fixtures. Without the data available to specifically estimate the monthly reduction in O&M, the Company thought it more appropriate to keep the equivalent rates the same until the time of the next rate review when the Company will have a full test year of yearly O&M, final capital costs and an updated Class Cost of Service study that will fully reflect the Cost of Service for the lighting class.

Attachments: None

Responder: Kyle Komata