

# Memo

To: Commissioner Fedorchak, Commissioner Christmann and Commissioner Kalk

From: Sara Cardwell, Public Utility Analyst

Date: November 16, 2015

Subject: **Informal Hearing**  
**Northern States Power Company**  
**Light Emitting Diode Streetlight Rate Petition**  
**Tariff**  
**PU-15-692**

**Summary of Proposal:** On October 15, 2015, Northern States Power Company filed to modify the Company Owned Street Lighting System Service Rate Code D30 tariff schedule to add Light Emitting Diode (LED) lamp pricing options to its tariff.

**Recommendation:** I recommend approval of Northern States Power Company's proposal to add Light Emitting Diode (LED) lamp pricing options to its tariff.

**Discussion:** The Company has indicated that cities in North Dakota served by the Company are interested in LED lighting options. No cities would have to convert any lights to LED lamps but, if the cities chose to convert their high pressure sodium lights to LED lights, they would experience savings of four to five percent on their bills. While the LED lights are slightly more expensive than the standard high pressure lights, savings result because the LED lights use less energy than the high pressure sodium lights.

The LED streetlights use less energy yet they provide better lighting thereby enhancing security. Additionally, LED lights are better at directing the light downward which helps promote dark skies. The Company has conducted experiments with LED lights and has found the lights perform well in winter and citizen feedback indicates satisfaction with the brightness and appearance of the lighting.

The Company states that the average age of the in-service cobra lights in North Dakota is approximately 21 years. These lights last an average of 25 to 30 year. If the Company replaces cobra lights over the next five years, as requested by cities, the lights would be close to their end of life. Additionally, the Company normally replaces lights before their end of life on a periodic relamping schedule in order that cities are not left with numerous lights out in areas and to limit the one on one lamp replacements.

Cc: Dave Sederquist, Northern States Power