

Memo

To: Commissioner Fedorchak, Commissioner Christmann and Commissioner Kalk

From: Sara Cardwell, Public Utility Analyst

Date: November 4, 2015

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

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 the tariff. 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, the savings result because the LED lights use less energy than the high pressure sodium lights.

While LED streetlights use less energy, 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.