Have you wondered what's included in your electric bill and why it's increasing? It's a great question, and one that lots of folks are wondering about; and rightly so. It's no surprise that the cost of things rarely goes down. But hopefully, it's a little bit of consolation to know that the investments into making our electric grid more efficient, purchasing low-cost renewable energy, and building out our transmission system are helping keep costs lower than if we were not doing these things.

By way of background, the energy we get in the Upper Midwest primarily comes from the Midcontinent Independent System Operator (MISO), our grid operator. Even if you have solar panels on your roof, you still need the electric grid. MISO is an independent, nonprofit, member-based organization that serves 45 million people across 15 states and Manitoba, Canada. Their job is to generate and transmit electricity 24-7-365 and do so reliably and cost effectively. They must also respond to the energy policies that states and utilities have established as they build the grid of the future.

Here's how the system works

The energy we access from MISO represents the wholesale price of energy. Utilities are like stores that purchase goods from a warehouse and pay wholesale prices but charge their customers retail prices to help defray business expenses. In the same way, utilities purchase the energy and then transmit it to your home or business and consumers pay retail prices for that energy when we pay our electric bill. But access to the lowest-cost energy is only one link in the chain of what makes up our electricity bill.
Renewables are among the lowest cost energy sources available and offer fixed low prices through power purchase agreements. But to keep up with state energy policies and consumer demand for electrifying homes and businesses, utilities must invest in maintaining and upgrading distribution poles, wires, substations, and other grid-related necessities to be able to deliver power to your light switch. The growing demand for electric car charging, for example, means investment in new infrastructure. EVs are just one investment utilities are making in the grid with costs recovered from ratepayers.

**The role of transmission**

Fortunately, transmission allows us to access the lowest cost energy, which goes a long way to keep bills lower. It is much more cost effective to go through an extensive, thoughtful, holistic planning process that considers state policies and goals and utility resource plans to determine what utility-scale transmission needs to be built - and where - than to stitch together lots of little projects. In fact, according to a recent MIT study, a coordinated regional approach to transmission planning could reduce the cost of clean electricity by 46 percent compared to state-by-state planning. That's why major transmission portfolios like Tranche 1 of the Long-Range Transmission Plan (LRTP), which was announced last summer, are so important.

The Tranche 1 LRTP lines offer a significant cost-benefit. For the $10.4 billion investment, the portfolio will provide $37 billion in financially quantifiable benefits over 20 years, while also improving reliability. But this is just a first step. Much more is needed to tackle our aging infrastructure while ramping up for the increasing demand for electricity as our economy accelerates toward electrification and carbon reduction goals approach.

The bottom line is transmission is a small fraction of your entire electric bill. MISO does its part to keep costs low as the grid operator by studying and doing deep cost-benefit analysis of where and how big new lines should be built. And while there are costs associated with delivering electricity to homes and businesses, having more energy from zero-fuel cost sources like wind and solar helps offset other costs and that truly does help keep electricity costs down.

Afterall, powering tomorrow starts today.