

## October 2011 Manager's Column

### Rising Energy Costs and "Green" Jobs

About half of U.S. households have average pre-tax annual incomes of less than \$50,000. In 2001, these families spent an average of 12% of their after-tax income on residential and transportation energy. In 2011, ten years later, the U.S. Department of Energy's Energy Information Administration (EIA) predicts these households will spend 20% of their after-tax income on energy.

So let's break this down. How much of these increased energy costs are transportation costs, how much are heating costs (natural gas) and how much of these increases are electricity prices?

According to the EIA, gasoline has gone up 150% from what it was in 1990, natural gas has gone up 100% from what it was in 1990, and electricity has gone up 50% from what it was in 1990. Here at Howard Electric, since 1990, our costs to you have gone up even less than the national average.

So why has our nations "electricity" prices gone up substantially LESS than other energy sectors and specifically, why has Howard Electric's rates gone up less than the national average?

The answer is coal. Coal prices delivered to electric utilities over the past decade have remained low and stable relative to competing fuels such as natural gas and petroleum. And here in Missouri, because we rely even more on coal than the national average (75% vs. 50%) our rates have been even more stable than the national average.

In its most recent long-term projections, the EIA forecasts that natural gas delivered to electric utilities will cost \$5.11 per MMBTU in 2020, rising to \$6.94 in 2035. Natural gas is currently around \$5 per MMBTU and this stable outlook is due to the increased production of shale gas.

Meanwhile coal is around \$2 per MMBTU and according to the EIA is expected to rise to \$2.16 per MMBTU by 2020 and \$2.39 per MMBTU in 2035. So coal prices should remain stable. The unknown for coal plants are the added environmental costs. Although, the U.S. and specifically Associated Electric has some of the cleanest coal plants in the world, we are nevertheless faced with potential added costs that would drive up the cost of electricity in the U.S. and specifically here in Missouri – despite the low-raw product costs of coal.

Meanwhile CO2 emissions in the U.S. FELL by a record 7.1% from 2008 to 2009 dropping to the lowest levels in 15 years. In addition there is now an overall slight downward trend since 1999.

The EIA attributes the 2009 decline to 3 factors – an economy in recession, high energy industries closing or moving off-shore, and lower prices of natural gas.

Meanwhile China's economy is booming and their CO2 emissions have increased 175% since 1999. In 2009 their CO2 emissions were 42% greater than ours and they continue to add a

staggering 508 million metric tons of CO2 per year which is the equivalent of the U.S. adding 65 million households per year.

U.S. politicians who are interested in creating jobs and improving our economy should want **RISING** U.S. CO2 emissions, because two of the three reasons given by the EIA for the recent drop in U.S. CO2 emissions have to do with hard economic times. Especially considering recent NASA satellite data which now shows that the heat trapping effect of released CO2 is much less than the climate models predicted. Apparently, according to some scientists, this trapped heat is “escaping” into space.