



WHEREAS:

Water and energy are inextricably linked. Access to adequate quantities of water at sufficiently low temperatures is required for thermoelectric generation from coal, nuclear, and natural gas. According to Department of Energy (DOE), “Water shortages, potentially the greatest challenge to face all sectors of the United States in the 21st century, will be an especially difficult issue for thermoelectric generators due to the large amount of cooling water required for power generation.”

Water scarcity is increasing and according to current projections, climate change is expected to exacerbate water shortages. According to DOE, “there is agreement among climate models that there will be a redistribution of water, as well as changes in the availability by season. As currently designed, power plants require significant amounts of water, and they will be vulnerable to fluctuations in water.”

Temperatures of water withdrawn must be sufficient for cooling power plants. Heat waves that raise water temperatures may force power plants to reduce production or shutdown. A heat wave in August 2010 forced the Tennessee Valley Authority to decrease power generation for two weeks at three nuclear facilities, costing approximately \$10 million in lost power production.

Coal, nuclear, and hydropower are among the most water-intensive generation sources. Ameren’s generation portfolio is 85% coal, 12% nuclear, and 2% hydroelectric. Many of its plants utilize once-through cooling technology that requires high water flow volumes.

Missouri and Illinois experienced record drought and extreme heat in 2012. Due to low river flows, Ameren Missouri’s hydroelectric facilities produced at less than half their usual capacity. Several of Ameren’s plants withdraw water from the Upper Mississippi, where water levels plunged to below normal levels over the summer. Regulations limit the temperature of water discharged by thermoelectric plants to mitigate impacts on aquatic species. Extreme heat in 2012 forced Ameren Illinois to apply for a provisional variance permit for its E D Edwards coal plant to discharge water that exceeded temperature thresholds into the Illinois River.

Ameren discloses that low water levels could negatively impact plant operations and compliance with thermal discharge effluent limits resulting in load reductions and shutdowns. While Ameren acknowledges the business risk of climate change, water shortage, and thermal impacts, it has not disclosed goals or strategies to mitigate these risks. Less water-intensive energy sources such as photovoltaic solar and wind, as well as energy efficiency and water conservation programs are important strategies to reduce water risk.

THEREFORE BE IT RESOLVED:

Shareowners request that Ameren adopt strategies and quantitative goals to reduce water use and thermal impacts on receiving waterways from the Company’s power generation and operations, maximizing the use of less water-intensive energy sources such as photovoltaic solar and wind, and that Ameren’s Board of Directors report to shareholders by September 2013 on progress toward achieving these goals. Such a report should omit proprietary information and be prepared at reasonable cost.