BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations	)))))	DOCKET NO. 13-035-184

COMMENTS OF THE UTAH PHYSICIANS FOR A HEALTHY ENVIRONMENT ON ROCKY MOUNTAIN POWER'S GENERAL RATE CASE–PHASE II

(May 22, 2014)

EXECUTIVE SUMMARY

Rocky Mountain Power seeks to impose a monthly surcharge on its net metered customers who provide solar PV-generated power to the system. It is characterized as a "fairness" charge covering the cost of such customers for the infrastructure from which they benefit.

This surcharge is arbitrary because it is unrelated to any demonstrated differential in infrastructure costs between solar panel owners and other RMP retail customers. It is unfair because it makes no attempt to credit producers of solar power with avoiding the enormous external costs that burning coal imposes on society in terms of climate disruption, air pollution, and impaired public health. This unbalanced approach to tariff design plainly violates S.B. 208.

Supporters of this proposed surcharge, and similar surcharges being proposed across the country, argue that the world must continue to rely on burning fossil fuels to meet its energy needs on economic grounds. Yet it is economics that argues most forcefully for a shift to low-carbon sources of energy.

Mining coal often destroys watersheds. Strip-mining it permanently sterilizes the land. Burning it impairs human health by polluting the air, warming the climate, and leaving toxic coal ash to pollute surface and ground water. These are some of the indirect, or "social" costs of relying on coal to power the country. Those who sell and burn coal do not pay these costs—they are borne by society as a whole.

A recent Harvard study estimated that the social cost of burning coal in the United States each year at between one-third and one-half a trillion dollars. If these costs were included in the price of coal, the price would double or triple. The price of coal-generated electricity would increase by from 9 to 27 cents per kilowatt hour. Since the average price of electricity is about 11 cents per kilowatt hour, fully accounting for the costs of coal-generated power would double or triple its price per kilowatt hour relative to the price of carbon-free sources of power, such as solar PV.

An economically rational tariff would seek to maintain this spread between the price of coal-generated power and carbon-free power. The monthly surcharge on net-metered providers of solar PV would go in the opposite direction, narrowing the already inadequate gap between the price of coal-generated electricity and the price of carbon-free electricity.

The cost of solar-generated power is expected to fall to about 11.8c/kWh by 2015, and 8.8c/kWh by 2020. By then, solar PV will not need subsidies, and its competitive advantage will only accelerate thereafter. The growing cost advantage that renewable, distributed forms of energy will have going forward is a challenge to Rocky Mountain Power's business model of centralized power generation and distribution relying on stagnant technology.

The solution is not--as Rocky Mountain Power proposes here--to obstruct the inevitable shift to renewable forms of energy, which will be the only economically and environmentally sustainable forms in the future. The solution is to adapt Rocky Mountain Power's business model to facilitate that shift. (See pages 26-29).

To impose a surcharge on customers who provide carbon-free power to the grid, as Rocky Mountain Power proposes in this docket, would be to march backward down the hill toward obsolete and unsustainable carbon-based power. This attempt to postpone the inevitable transition to clean and sustainable sources of power, if successful, will undermine the health of Utah's environment and its people.

The balance of these comments summarizes recently published scientific reports on the causes and consequences of climate change. It focuses on the impacts predicted for the Mountain West and the Great Basin, and the unique public health risks that climate change—driven by the rapid buildup of greenhouse gases in the atmosphere—poses to the people of Utah.

This spring, the Intergovernmental Panel on Climate Change (IPCC) released its Fifth Assessment Report and a group of Federal agencies released their National Climate Assessment. In 2011, the Bureau of Reclamation issued its climate report required by the Secure Water Act. These reports evaluate the causes and the likely impacts of climate change at, respectively, the global, the national, and the regional level.

Each is a landmark, multi-year study that synthesizes the research of hundreds of the world's leading geophysical scientists. They all reach the same conclusion—the massive buildup of carbon in the atmosphere is unsustainable. It is destroying the health of the world's natural systems and the health of its human populations that depend of those systems. If not mitigated, global warming will result in pathologies, both human and ecological, whose costs will far exceed the amount saved by relying on dirty rather than clean sources of energy. (See pages 2-13).

Globally, the costs of climate warming take the form of heat, drought, floods, super storms, crop failure, and the encroachment of the sea on coastal cities. For the Mountain West, and for Utah, in particular, the costs of climate warming take the form of dwindling snowpack, shrinking rivers, extended summer drought, dust storms, dying forests, and a massive increase in forest and range fires and their associated pollution. (See pages 28-41).

These reports identify the maximum amount of further warming of the climate that can be regarded as sustainable as 2º Centigrade (3.6º Fahrenheit). They observe that to keep further warming within this limit, society would have to limit the total amount of carbon burned since the industrial revolution began to 800 billion tons, leaving the other 4,200 billion tons of fossil carbon reserves in the ground.

Mankind has already spent two-thirds of its 800-billion-ton "carbon budget." Only one third remains to be burned before climate damage to the earth's natural system and the human economy becomes irreversible. At current burn rates of 10 billion tons per year, society will spend what remains of its carbon budget in less than 30 years.

These reports note that if society fails to adopt major new carbon reduction programs, global warming will exceed 4º Celsius (7.2º Fahrenheit) by the year 2100. This is more than double the 2º C cap on manageable warming. It will cause so much damage to the world's natural systems that society will be unable to adapt to the extreme environment that will result. (See pages 4-13).

The physician members of UPHE are primarily concerned with the damage that local climate warming will cause to Utah's natural systems, and, therefore, the health of its people which depends on the integrity of those systems.

Climate change is expected to accelerate the heating and desertification of Utah's environment. For example, forest fires are expected to expand five-fold by 2100, greatly increasing the exposure of Utah's residents to the toxic particulate pollution that such fires generate. (See pages 38-43, 63-66).

Increased heat, drought, and fire caused by climate warming are expected to strip the rangelands of the Great Basin of much of their vegetation. (See pages 28-36).

This effect will be magnified if the Southern Nevada Water Authority proceeds with its plans to drain the aquifers of central Nevada and western Utah to supply additional water to Los Vegas. Unprotected desert soils will be blown downwind to Utah's heavily populated Wasatch Front. (See pages 65-74).

Great Basin soils are contaminated with unusually dangerous toxins. These include a fibrous material that is hundreds of times more toxic than asbestos, radioactive waste from decades of nuclear testing, and mercury from gold mining. Increased heat, drought, and fire associated with climate warming is expected to remove much of the vegetation that now holds those soils in place. By mid-Century, increased exposure to ozone, smoke, dust, and airborne toxins due to local climate warming is expected to substantially increase rates of respiratory and cardio-vascular disease, cancer, genetic damage, and premature death. It is estimated that by mid-Century, two million Utahns will be too young, too old, or too sick to withstand the effects of the increased air pollution to which they will be exposed. (See pages 41-73).

The value of the earth's natural systems include clean air to breathe, clean water to drink, oceans hospitable to fish, fertile soil to support crops, herds, and trees, and a temperate climate. We take these services for granted because they are free, but most of them could not be replaced at any price.

The services provided to humanity by the earth's natural systems have been calculated to be worth at least $47 trillion annually, and to have a capitalized book value well above $500 trillion. These recent climate studies make it clear. Policy makers who choose to nominally save two or three pennies per kilowatt hour by clinging to coal are, by that choice, putting the health of all of the earth's natural systems (and the hundreds of trillions of dollars of value that they represent) in grave peril. When the earth's natural systems are in grave peril, the health of its inhabitants are put in grave peril as well. (See pages 41-43).

It is time for policy makers to recognize that we are at a crossroads. The health of the earth's natural systems, and the health of the public that depends on those systems, can no longer be taken for granted. Unrestrained carbon emissions are putting the health of the public at risk. If the public's health is to be protected, policy

makers must make pricing decisions that fully reflect the benefits to society of shifting to low- or zero- carbon sources of electric power.