

To: Colorado Springs Utilities Board
From: Colorado Springs Business Leaders
CC: Mayor Bach, Jerry Forte
Date: May 20, 2014

The fire at the Martin Drake plant presents us with an important opportunity to pause and reflect on the effects this aged industrial operation has on our community. Past decisions about Drake have prioritized cheapest power over important related impacts this plant has on the health, safety and economic vitality of our community of over 500,000 people, among whom Drake is centrally located.

Across the country in Alexandria, Baltimore, Chester (PA), Washington DC, Chicago, Cleveland and dozens of other cities, vibrant urban renewal and growth has risen from the sites of outdated coal power plants. Colorado Springs should benefit from the same forward thinking. As members of the local business community, we request the City Council to consider the near term closure of the Martin Drake power plant based on compelling economic and quality of life advantages to the city, and consistent with the results of the study recently published on Drake decommissioning options.

The multi-month study conducted by the engineering services and consulting firm HDR, Inc. (Drake Study Report) shows that a shorter term retirement of Drake would be the most economically and socially prudent option for CSU and its ratepayers when the relevant financial, health, social and environmental impacts are considered.^a Of the twelve alternatives studied, it was determined that Drake's retirement by 2019 demonstrated the best overall return on investment to CSU, and would provide a \$752 million overall benefit to CSU, its ratepayers, and the surrounding community.^b

In the Drake Study Report, HDR also emphasized that operation of Drake beyond 20 years is "not considered feasible or viable," nor is there precedence in coal fleet operations history for operating a plant the age of Drake (which has already been operating well past its intended life) for such an additional extended period of time. HDR only considered those "practical" alternatives with operations less than 15 years in the key conclusions of its report. This study was commissioned by the CSU Board at a cost of approximately \$500,000.

Yet, the CSU Board revealed its majority support for continued long term operation of Drake at its March 19, 2014 meeting; and at its April 16, 2014 meeting that it may decide to exclude consideration of the social, health and environmental factors that directly impact the health, safety and economics of the residents and businesses in our community every day.^c

We question why the CSU Board might contemplate bypassing the most fiscally and socially responsible alternatives for Drake's decommissioning presented by this respected body of experts, particularly in lieu of longer term alternatives the Drake Study Report specifically excludes as impractical and historically unprecedented. It also appears the board is reaching decisions for this highly important matter in advance of gathering full public comment. Further, given Drake's age, location central to our community, and the plans for downtown revitalization including the City For Champions projects, we urge the CSU Board to responsibly consider the health, safety and social effects Drake has on our community, and the risks and economic impacts they present to our residents, businesses and to the City's vitality.

Some relevant points the CSU Board must consider in its decision-making include:

- ✓ On average, Drake emits 3,415 tons of Nitrogen Oxides (NOx or NO₂), 4,600 tons of Sulfur Dioxide (SO_x or SO₂), and 11 pounds of Mercury (Hg) per year.^d
- ✓ An exhaustive study by the Harvard Medical School quantified the annual national costs of coal plant emissions: \$5 billion from mercury contamination, \$187 billion from particulates causing asthma, bronchitis, heart attacks and premature death, and \$62 billion from climate damage. The health costs borne by Colorado Springs residents impacted exceeds \$65 million per year.^e
- ✓ The Drake plant consumes nearly 1 billion gallons of water per year, of which half is clean and potable, costing CSU over \$3.5 million. Replacement generation by natural gas and other alternative sources such as wind and solar would significantly decrease water needs and costs.^f
- ✓ Additional NO_x emissions control modifications (Selective Catalytic Reduction (SCR)) will be required for Drake to comply with existing National Ambient Air Quality Standards (anticipated compliance date is 2023), expected to cost \$111 Million plus \$5.5 million per year for operation -- expenses that a Drake Decommissioning decision of nine years or less would avoid.^g
- ✓ Although hundreds of years of coal reserves exist, they are becoming too deep to economically mine, and are increasingly classified as stranded assets. The U.S. Energy Information Agency projects a continued 2.8% annual increase over inflation in Powder River Basin coal prices.^h
- ✓ In contrast, the cost of solar and wind power generation continues to dramatically drop. Decreasing costs of renewables have led Xcel Energy, after extensive modeling of various portfolios, to conclude that a mix of solar, wind and natural gas is the least cost option energy generation. Xcel is benefitting from optimal sites in El Paso County for 250 MW of wind and a 120 MW solar project in Pueblo County;ⁱ and Tri-State a 150 MW wind project in Kit Carson County.
- ✓ Other Colorado municipalities are taking significant steps to decrease reliance on fossil fuels. The Boulder City Council has recently formed a municipal utility to create an authority for independent energy related decision-making; and a study by the Fort Collins Utility found that by prioritizing investments in alternative energy solutions for buildings, electricity and transportation, the community could save \$2 billion by 2050.^j Notably, both cities achieved top 20 ranking in a 2012 Best Performing U.S. Cities report, among similar top rankings elsewhere.^k
- ✓ The majority of Coloradans surveyed through the Colorado College State of the Rockies Report support greater use of renewable energy.^l CSU's own polls show similar support by its customers.^m
- ✓ Greenhouse gas emissions regulations by the EPA are anticipated on June 1, 2014, for implementation on existing power plants such as Drake by June 1, 2015. The Drake Study Report acknowledges that carbon (CO₂) cost planning "will have a material impact on the financial ranking of the alternatives defined and studied".ⁿ Many utilities have already included CO₂ planning in their IRPs. Over 2.2 millions tons of CO₂ are emitted by Drake each year.
- ✓ In El Paso County, there is strong demand for less carbon-intensive energy by some of its largest energy users such as Fort Carson, the U.S. Air Force Academy, Colorado College and UCCS, that all have greenhouse gas reduction goals in place.^o
- ✓ If the fire-damaged Generator 5 were to be rebuilt, it is likely that new and more stringent Clean Air Act requirements would be triggered, adding significant costs. Even its conversion to a combined cycle gas turbine (CCGT) would present new safety risks and regulations, for example, due to the required delivery and use of large tanks of anhydrous ammonia for NO₂ control for this type of generator.

In Conclusion:

As City Council members, one of your roles as managers of a public utility must include consideration of the quality of lives of those in the community, while ensuring reliable, safe power at the least cost.

We believe that a proper consideration of all factors important to our community in addition to their risks and economic impacts, will lead to the realization that shorter term retirement options for Drake are the most economically and socially responsible. The potential to avoid additional expenses for scrubber technology at Drake that has not yet been tested commercially could also help restore public confidence in decisions concerning Neumann Systems.

Drake's age and central urban location present continued high health, safety and financial risks from pollution emissions, fire, chemicals and other conditions inherent in such an industrial operation, and thus should be given the highest consideration in your decommissioning decision-making process.

Sincerely,

[Signatories on separate page]

References:

^a <http://draketaskforce.net/home> Colorado Springs Utilities, *Study of Alternatives Related to the Potential Decommissioning of the Martin Drake Power Plant*, Final Report, Dec. 23, 2013, (referred to in this letter as the “Drake Study Report”). Twelve alternatives for the retirement of Drake within a time span of 3 to 30 years were analyzed in the report, and various results for each were presented depending on which of the three following factors were prioritized:

- A. only the direct financial factors (**FROI**);
- B. only the social, health and environmental factors (**non-FROI**); and
- C. all direct financial, and indirect social, health and environmental factors (**SROI**).

^b Drake Study Report, p. 45.

SROI is an enhanced form of Cost-Benefit Analysis (CBA), which provides a triple-bottom line view of a project’s economic results. SROI monetizes (converts to monetary terms) all relevant social and environmental impacts related to a given project in addition to providing the equivalent of traditional financial metrics.

^c March 19, 2014 CSU Board Meeting Minutes, p. 5 – 6. Council members Pico, Collins, Bennett and King expressed preference for Drake to be operating for the long term, Council member Gaebler for mid-range continued operation, and Council members Knight and Miller a preference that a short term operation not be considered for Drake’s continued operations. <https://www.csu.org/CSUDocuments/ubminutes20140319.pdf>

^d http://www.catf.us/fossil/problems/power_plants/

^e *Mining Coal, Mounting Costs: The Life Cycle Consequences of Coal*, by the Center for Health and Global Environment, Harvard Medical School; http://green.blogs.nytimes.com/2011/02/17/tallying-coals-hidden-cost/?_php=true&_type=blogs&_r=0;

http://www.sourcewatch.org/index.php/Martin_Drake_Power_Plant

^f Drake Study Report, pgs. 17, 32, 50.

^g Drake Study Report, p.7; Table A-13, p. 112

^h http://www.eia.gov/forecasts/aeo/er/supplement/suptab_140.xlsx

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http://www.xcelenergy.com/staticfiles/xe/Corporate/Corporate%20PDFs/Redacted_Version_120DayReport_REVISED_FINAL.pdf

^j http://www.fcgov.com/climateprotection/pdf/80FortCollinsReport-WEB_2014-02.pdf

http://www.dailycamera.com/news/boulder/ci_25712168/boulder-creates-energy-utility

^k http://www.denverpost.com/ci_22394249/fort-collins-and-boulder-among-countrys-best-performing

^l <http://www.coloradocollege.edu/other/stateoftherockies/conservationinthwest/statereports/Colorado.dot>

^m 2011 EIRP, Tables 7.2 and 7.3; 2011 EIRP Advisory Board Update Presentation by John Romero, Sept. 2011, pgs. 9 -10.

ⁿ Drake Study Report, pgs. 47, 97.

^o <http://www.army.mil/article/55328/>; <http://www.uccs.edu/sustain/initiatives/climate.html>