

Liberty Brief

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Data Centers

The hidden costs of corporate welfare

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Introduction

Wyoming's government utilizes millions of tax dollars to attract businesses to the state. It justifies this spending program by playing up the positive with long-winded rhetoric about economic diversification and job creation. What government leaves out is the cost of subsidizing businesses. As the history of this corporate welfare shows, attempts to pick winners are littered with the carcasses of wasted tax dollars and a citizenry worse off.

The latest corporate welfare recipient favored by the Wyoming political class is the data center. Wyoming's government has already dispensed millions of tax dollars in handouts and tax breaks to attract data centers to the state. But in addition to spending tax dollars, data centers have another hidden cost to taxpayers: they use a lot of electricity. On the surface, this may appear benign, however with the federal government drive to increase the cost of electricity, the addition of data center demand to the electricity grid will no doubt raise the cost of electricity to Wyoming families. Instead of throwing tax dollars at companies in the hope some will stick, and in this case, dooming many families in Wyoming to fuel poverty, the government must stop trying to pick winners and losers in the corporate welfare game.



Corporate Welfare

Corporate welfare is the government's use of taxpayer's money to subsidize favored business and industries. It comes in many forms, such as grants, subsidized loans and tax breaks. Corporate welfare allows politicians to provide a unique benefit to a specific company or industry under the guise of *doing something* for the economy and creating jobs.

Problems with Corporate Welfare

Corporate welfare creates waste, inefficiency and bad incentives:

- It misdirects resources from investments by people spending their own money to investments picked by government officials;
- Subsidies to business give some firms an unfair advantage over others, possibly keeping failed businesses afloat;
- Tax-supported competition makes it difficult for good businesses to operate, as they are forced to compete against taxpayer-funded operations;
- It creates the demand for handouts to all businesses, which would result in a massive transfer of funds from taxpayers to businesses;
- What government favoritism also does is create the incentive to lobby. Subsidies to business spur greater lobbying for new and higher subsidies, which results in higher government spending and the demand for even more subsidies. This results in new subsidy programs, and the cycle continues;
- Entrepreneurs direct their creativity to gaining government favor rather than improving the quality of their products and their operational efficiency.

Business subsidies can also create an unhealthy – and sometimes corrupt – relationship between businesses and the government. Solyndra provides a good example. According to the New York Times, Solyndra “spent nearly \$1.8 million on Washington lobbyists, employing six firms with ties to members of Congress and officials of the Obama White House.”¹

Corporate welfare weakens the market's profit and loss signals and undermines the tradition of entrepreneurship and risk taking. In effect, corporate welfare distorts investment decisions and leaves society worse off.

A good example of how corporate welfare has made Wyoming citizens worse off is Wyoming Ethanol.

In 1995, the Wyoming government created an ethanol tax credit to encourage ethanol production in the state and “create green jobs.” That year, Renova Energy, an Idaho company, took an unused ethanol plant from Louisiana, rebuilt it in Torrington, Wyoming, and christened it *Wyoming Ethanol*. As the only ethanol producer in the state, it got the entire tax credit. Over the past 19 years, Wyoming Ethanol received \$38.5 million in credits.

According to a Wyoming Department of Transportation report published in January 2014, the \$38.5 million in subsidies to Wyoming Ethanol took \$38.5 million in fuel tax revenue from the state highway fund and cities and counties. Citing a shortage of funds for roads, Wyoming's state legislature raised the fuel tax in 2013.

When government gives millions of tax dollars to companies like Renova, that money is taken out of the pockets of the people who earned it and also away from other uses such as roads. Corporate welfare cheerleaders focus on short-term benefits and avoid discussions of long-term costs. As in the case of ethanol subsidies, the long-term cost is a higher fuel tax for the citizens of Wyoming, money we no longer have to spend on the things we want.

Corporate Welfare in Wyoming

The drafters of the Wyoming Constitution wisely tried to prevent future politicians from giving taxpayers' money away to individuals or private entities. Article 3, Section 36 of the Wyoming Constitution prohibits appropriations to “any person, corporation or community not under the absolute control of the state.” It seems clear enough, and for the most part prevents lawmakers from providing corporate welfare directly to individual business entities. However, it hasn't prevented legislators from using creative methods to hand out money to their favorites *indirectly*.

In 1986, in the middle of some of Wyoming's worst eco-

conomic times, our constitution was amended to create an exception to Article 3, Section 36 and allow mineral funds to be loaned directly to fund economic development. Known as the Amendment 4 program, it lost millions of hard-earned tax dollars.

For example, in 1987, Wyoming Sen. Robert Frisby sponsored legislation to give \$10 million to a company called Char-Fuels to build a plant in Glenrock, Wyoming. When it was pointed out that giving tax dollars directly to a private company violated the Wyoming Constitution, Frisby amended the bill to give \$30 million in loans for coal enhancement projects. The projects would be vetted by the Wyoming Investment Fund Committee, which included the State Treasurer and four private citizens.

The State Treasurer at the time, Stan Smith monitored the loans to Char-Fuels. Char-Fuels was supposed to provide some level of matching funds but Char-Fuels was never able to attract federal funds or to raise private funds. Nevertheless, Mr. Smith released \$8 million dollars to Char-Fuels. Char-Fuels eventually gave \$6 million back but all the interest was lost.

In another example, the Wyoming Investment Loan Committee awarded Energy Brothers Inc. (EBI) \$11.7 million to produce “high-energy, pollution-free pellets” to sell to utilities to generate electricity. EBI defaulted on the loans. No commercial sales ever occurred.

In fact, most loans under the Amendment 4 program defaulted. According to an article by Joan Barron in the *Casper Star Tribune*², more than 40 percent of the \$18 million in loans were written off as a loss. However, the amendment is still part of the constitution, which will allow the legislature to provide corporate welfare to companies coming with hat in hand.

These are just two example of money wasted via bad loan decisions made in Wyoming. The experience had, until now, prevented the government from getting back into the business of taking money from productive firms and handing it out to the unproductive.

What happens when government diverts resources from one industry to another?

Severance and sales taxes pay the lion's share of the state

government's expenses. If government takes money from the oil and gas industry to fund favored projects, that means the oil and gas industry has less money to develop a productive technique, such as hydraulic fracturing (fracking). Fracking, for example, is creating an economic renaissance in other areas of the U.S. such as Pennsylvania, an economic basket case since the decline of the steel industry. When government hands out money to favored business, this redistribution can actually lead to less economic growth in the future because money is diverted to less valued uses, and often lost.

It is time to face facts. Government can't “create jobs.” Government must get out of the way so entrepreneurs can create jobs. To date, however, Wyoming continues to support corporate welfare

An Addition to the Corporate Welfare Portfolio: Data Centers.

In 2012, Wyoming Governor Matt Mead announced that Microsoft Corporation would build a data center in Cheyenne at a cost to Microsoft of \$112 million. Since then, Microsoft has announced two expansions. Supporters cheered that the data center would diversify the economy and, according to Gov. Mead's press release, “bring high-paying, technology jobs to the state.”

What diversification cheerleaders neglected to mention was data centers don't bring many jobs and Wyoming taxpayers would be paying for each one of those jobs in a myriad of obscure but costly ways.

Governments in every state use other people's money to attract businesses, and job creation is the oft-touted rationale. But how many jobs will the Microsoft datacenter create? The first \$112 million center created 18 jobs. The second center, at \$66.5 million will create an additional nine jobs. The total investment of the initial project and expansion will be about \$178.5 million. The most recent, \$274 million announcement will create fewer than 10 jobs.

In summary, Microsoft is investing about \$450 million in datacenters in Cheyenne to create fewer than 40 jobs.

But how much will each job cost taxpayers and what will it mean for future energy demand?

For the initial data center and first expansion, Microsoft received a \$5 million “Managed Data Center Cost Reduction” grant. In plain language, this money covers some of Microsoft’s electricity and broadband cost. It also received a \$5 million Governor’s Data Center Recruitment Fund handout, meaning it got tax dollars to prepare the site for the facility. Then it got another cost reduction grant of \$2.25 million, so the total state subsidy was \$12.25 million. Then the City of Cheyenne chipped in with a \$1.5 million grant to set up a renewable fuels project. For the 27 jobs created in the first two phases of the project, Microsoft received a subsidy of more than \$13.75 million. That is almost \$509,000 per job, but this calculation does not include the value of *free* land, the data center sales tax and permit exemption.

Cheyenne LEADS provides in-kind benefits such as *free* land to businesses to attract them to Cheyenne. Cheyenne LEADS does not value its property according to the market price; but rather in terms of jobs and capital investment per acre. To attract Microsoft’s 40 jobs, Cheyenne LEADS gave the company 50 acres in its North Range Business Park, west of Cheyenne, and an option to buy an additional 30 acres, which it took at its own cost of “several million,” according to Randy Bruns, Cheyenne LEADS CEO.

Cheyenne LEADS is a membership-based organization that receives about 15 percent of its funding directly from government. Private individuals have a right to use their own money to attract new businesses to an area, but when they leverage tax dollars to bribe businesses into town, taxpayers are forced to pay for other people’s favorites rather than use their money for their own purposes.

Wyoming’s government showered Microsoft with a number of other goodies to attract it to Cheyenne. For example, data centers also get a sales tax exception on “qualifying” equipment and power supply purchases. According to the Wyoming Department of Revenue, between July 2010 and June 2013, the state sacrificed \$3.4 million in sales tax revenue from this exemption to the data centers “certified” by the Wyoming Business Council. “Certified” data centers employ 45 full time staff. That means each job cost about \$75,555 in forgone sales and use tax revenue over three years.

But it doesn’t end there.

The Data Center Permit Exemption gives a data center with more than \$178.3 million in capital investment an exemption from the bother of applying for an Industrial Siting Permit. This presents a cost savings of approximately \$500,000 for permit application preparation, wildlife studies, economic analyses, public meetings, permit hearings, attorney fees, and other sundry extra activities that cost money.

Microsoft’s first two investments equaled \$178.5 million.

If government can provide relief to some companies from Data Center Permit Exemption costs, they should be eliminated entirely. Eliminating burdensome red tape and lower taxes would, in fact, *do something* for the economy by lowering costs for all companies, not just those favored by government.

Data Center Electricity Use

Typically, corporate welfare makes people worse off by misdirecting money from taxpayers to political favorites, distorting investment decisions. Subsidizing data centers could go a step further, because their huge demand for electricity could drive up the cost of electricity for Wyoming families.

A 2007 Environmental Protection Agency (EPA) report³ showed that in 2006, data centers used about 61 billion kilowatt-hours (kWh) of electricity, or about 1.5 percent of all U.S. electricity consumption, about twice as much as in 2000. The 61 billion kWh are equivalent of the all the electricity used by about 5.8 million U.S. households.

The EPA warned at the time that consumption could double again by 2011, but according to the US Department of Energy⁴, data centers now use about 2 percent of all the electricity produced in the U.S., a 33 percent increase over 2006. The slower increase was likely due to the slowdown in the economy. The increase could accelerate once the economy picks up.

What might this mean for electricity rates?

As demand for energy increases, so will the need for new power plants. When new electricity capacity is added, each customer, big or small, will pay more during construction and still more when rates rise, according to how much elec-

tricity they use. Although large electricity users like Microsoft may pay more than Cheyenne families, families could actually pay twice, once through their own higher rates and again through taxpayer-funded handouts to these data centers through the Managed Data Center Cost reduction grant, a grant subsidizing data center electricity use.

Electricity Cost Increase

Data centers move here because, in addition to corporate welfare, they use a lot of electricity and thus look for locations with low electricity costs. Electricity in Wyoming is relatively cheap—for now. As demand rises, so does the price of electricity because when public utilities build more

In fact, the shift from coal to other energy sources has already started and electricity rates are on the rise.

Coal as a source of baseload (24 hour per day) power is already diminishing in the power mix in Wyoming. Since 2008, the coal's use has fallen from 94.21 percent of the total source of energy to 88.58 percent. Natural gas use is relatively stable and although wind as a subsidized energy source has increased, because it is intermittent (wind only blows some of the time), it cannot be depended upon for base load power as base load power is used to meet continuous energy demand and produce energy at a constant rate. Thus, as coal fired plants are shut down by government policy, they will likely be replaced by natural gas

Wyoming Power Generation by year and energy source (megawatt hours)

	2008	2009	2010	2011	2012	2013
Coal	94.21%	91.15%	89.33%	85.98%	87.54%	88.58%
Petroleum	0.09%	0.11%	0.12%	0.12%	0.10%	0.08%
Natural Gas	1.06%	1.06%	0.95%	0.96%	1.03%	1.01%
Other Gases	0.62%	0.62%	0.58%	0.56%	0.57%	0.54%
Hydro	1.80%	2.10%	2.13%	2.57%	1.80%	1.37%
Wind	2.07%	4.84%	6.75%	9.68%	8.81%	8.43%
Other	0.14%	0.13%	0.14%	0.13%	0.14%	0.00%

Source: <http://www.eia.gov/electricity/monthly/>

capacity, they ask the Public Service Commission for a rate hike, and they usually get it. But something more insidious lurks behind this apparent lack of incentive to keep costs down. Government policies are currently pushing cheap energy off the grid. When EPA regulations shut down coal-fired plants, utilities build new plants that generate electricity with another energy source, such as natural gas. But in Wyoming, coal-fired plants that produce electricity at a cost of \$10.89 per megawatt hour are being replaced by natural gas plants producing electricity at a cost of \$53.33 per megawatt hour.

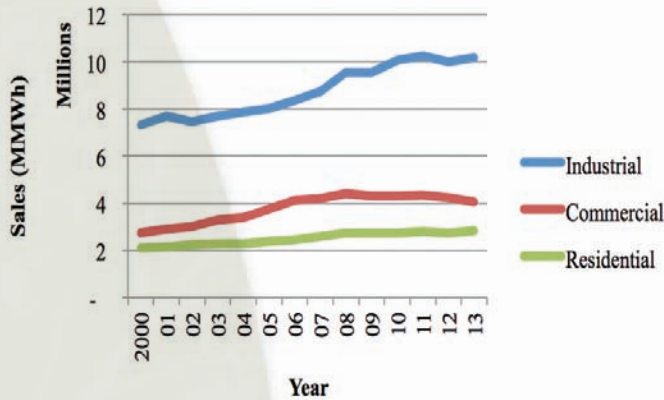
This means, should new power plants come online because of rising demand from power pillaging data centers, Wyoming families will see their energy costs skyrocket and they could end up struggling with fuel poverty.

fired plants.

Electricity Demand

Public utility electricity sales in Wyoming have been relatively stable or falling in recent years. Residential electricity use has been stable since 2008 due to better insulation and more efficient windows. In fact, according the U.S. Energy Information Administration, in the U.S. as a whole, heating and cooling no longer account for the majority of residential electricity consumption.⁵ The same report shows that households are using more energy for appliances, such as refrigerators, and electronics. Commercial and industrial electricity consumption have leveled off.

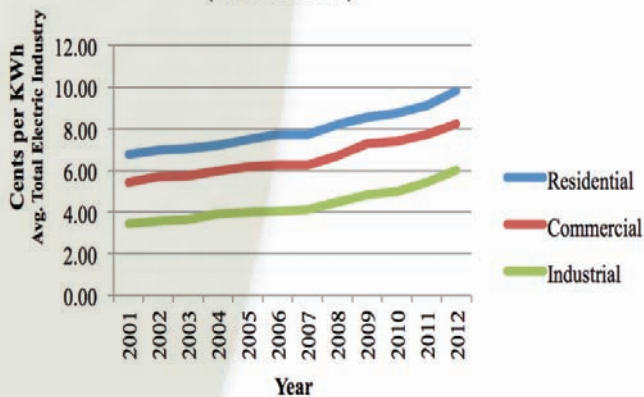
Electricity Sales



Source: <http://www.eia.gov/electricity/data/eia826/>

However, electricity rates for all three groups in Wyoming have been rising. Between 2001 and 2012, residential electricity rates, by far higher than commercial or industrial rates, rose from 6.77 cents per kilowatt hour to 9.11 cents per kilowatt hour, a 35 percent increase (four percent increase when adjusted for inflation)⁶. Both commercial and industrial rate increases show a similar pattern.

Electricity Rates (current dollars)



Source: <http://www.eia.gov/electricity/data/state/>

Why, over time, do prices in the free market fall while prices for government services and in this case, regulated utilities rise?

In a free market, when technology improves, costs go down. Apple computers provide a clear, although somewhat ironic, example. In 1984, the Mac 128k computer, sporting a nine inch black and white monitor, 128 k of RAM (memory), an eight megahertz processor speed and no hard drive, cost \$2,495. This, incidentally, was the first computer that accepted floppy disks. Those disks had a storage capacity of 1.2 megabytes and cost \$5 each in 1984.

Today, an iMac, with a 21.5 inch color screen, an eight gigabyte RAM (memory), 2.7 gigahertz processor speed and a 500 gigabyte hard drive, costs \$1,099. In other words, for less than half the price, a computer today has a color screen more than twice as large, 62,500 times more RAM, can process over 300 times as many operations per second, includes a hard drive with a storage capacity equivalent to more than 400,000 1984 floppy disks (which in 1984 would have cost an additional \$2 million – over \$4.6 million adjusted for inflation – in addition to the cost of the computer), plus many other improvements not listed here.

The cost of government and, it seems, of services provided by heavily regulated industries such as power generation doesn't appear to go down. In fact, in the energy industry, improved technology does not translate to lower costs of electricity. As EPA regulations advance, technological advance goes into cleaning up old activities, such as scrubbing. Costs go up over time because of regulations and with the EPA's war on coal, costs could go up at an even faster rate than before.

Effect on Family Electricity Bills

What will happen should coal-fired electricity plants be replaced by natural gas? Recent events in Wyoming tell the tale.

Cheyenne Light Fuel and Power (CLFP) is the public utility that enjoys the electricity monopoly in Cheyenne. It produces 36 percent of its electricity from coal-fired plants, four percent from gas, oil and wind, and purchases 40 percent of its power from other sellers. At CLFP, electricity from coal costs \$10.89 per megawatt hour to produce and \$53.33 per megawatt hour for electricity produced by natural gas. Should all CLFP's coal-fired electricity production be replaced by natural gas, electricity cost for the average family home will double.

At this time, the electricity bill of a typical family home in Cheyenne includes eight charges, only one of which is for energy. First, a family pays a flat Service & Facility Charge of \$13. This covers some of CLFP's fixed costs such as local connection, facilities, metering equipment, billing and accounting, and a portion of the distribution system. The family then pays the energy charge of \$0.09990 per kilowatt hour (KWh). The Power Cost Adjustment (PCA) charge, used to cover higher costs to deliver power to the home than what the company factored into its base energy charge, is \$0.00438 per KWh and the Demand Side Management (DSM) charge is \$0.00080 per KWh. The DSM charge covers the utility's cost to promote conservation and/or energy efficiency. In other words, you are paying the utility to convince you to use less energy.

The electricity cost for a family using 621 kilowatt hours of energy in 32 days, before taxes is \$78.25.

But it doesn't end there. Families pay a two percent franchise fee, which pays for the tax paid by the utility to the

municipality to provide services in Cheyenne. In other words, families pay an additional tax to the city through their utility bill to have CLFP provide them with a service they have no choice but to take.

Families are also hit with a one percent County Sales Tax paid on all the charges mentioned so far, including the franchise fee, as are the 4 percent State Sales Tax and the Special County Option tax (currently zero). In other words, in addition to a tax on the cost of electricity and all the additional charges related to getting electricity at home, families are paying taxes on a tax. This tax grab adds \$3.99 to a family's electricity bill, bringing the family's total for the month to \$83.81.

What happens when gas-fired electricity plants, which produce electricity at \$53.33 per megawatt hour, replace existing coal-fired plants, which produce electricity at \$10.89 per megawatt hour? The flat Service & Facility Charge of \$13 stays the same but all the other charges will likely go up because of the higher cost of energy, which rises by 141 percent to \$0.24072. Assuming these charges are proportionate to the increased cost of producing electricity, the subtotal at this point comes to \$169.54, a 116.65 percent increase over the previous coal-included scenario.

But it gets worse. Because taxes are based on a percentage of all the costs mentioned, the amount of tax the family pays to the government also goes up. The franchise fee paid on the energy, PCA and DSM charge, which all likely rise, is higher, and the County, State and Special County Option taxes are paid on those higher charges, plus the now higher franchise fee. The tax paid also rises by 116.65 percent, to \$8.68 and the grand total for the month, after tax, soars to \$181.58, more than twice as much as the previous coal-included scenario.



A Taste of Things to Come

Does this scenario seem unlikely? It shouldn't, because gas-fired plants are already replacing coal-fired plants in Wyoming.

For example, Cheyenne Light Fuel and Power's (CLFP) new \$222 million gas-fired electricity plant, Cheyenne Prairie Generating Station, will light up in October 2014. CLFP is building this plant because of the retirement of three coal-fired plants before the end of their useful lives.

When rates go up, it will take an estimated \$14 million more out of the pockets of Cheyenne families every year. CLFP wants the hike to earn a return on investment for its portion of the construction cost and recovery of its share of the associated *operating costs* of the Cheyenne Prairie Generating Station⁷.

CLFP and another Black Hills Corporation utility, Black Hills Power, share the construction and operating costs as joint owners of the new 132-megawatt power plant. CLFP's parent company, Black Hills Corp., requested a rate hike⁸ for its portion of the \$222 construction and operating cost of the new power plant. This would take an additional \$2.8 million per year out of the pockets of families trying to heat their homes, for a total of \$16.8 million per year.

But families have already been paying for Prairie Generating Station's construction cost. Since October 2012, a rate rider was added to electricity bills, which started out at \$0.00157 per kilowatt hour (kWh) and then rose quarterly to its present \$0.00889 per kWh, a nine percent addition to the normal \$0.0999 per kWh charge. This rate rider will go away when the Wyoming Public Service Commission approves the rate increase request.

Conclusion

Given the current federal government policy of making electricity more expensive for families trying to heat their homes and cook their food, the last thing Wyoming needs are energy hogs. Data centers don't employ many people and the few they do cost taxpayers millions. The unseen consequences of data centers, such as higher electricity costs, are those that could kill jobs in other areas of the economy.

Government must stop bribing data centers to come to Wyoming.

We are right in our concern about diversifying the economy, but government is wrong in its approach. Instead of transferring money from productive industries to favored industries and harming families along the way, a better strategy would be to encourage entrepreneurship through sales and severance tax reductions, and the elimination of red tape. Businesses with good ideas can get private funding and don't need to line up at the trough.

Endnotes

¹<http://www.nytimes.com/2011/09/23/us/politics/in-rush-to-assist-solyndra-united-states-missed-warning-signs.html?pagewanted=all&r=0>

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³http://www.energystar.gov/ia/partners/prod_development/downloads/EPA_Datacenter_Report_Congress_Final1.pdf

⁴<http://www.energy.gov/eere/buildings/data-centers-and-servers>

⁵[http://www.eia.gov/todayinenergy/detail.cfm?id=10271&src=%E2%80%B9%20Consumption%20%20%20%20Residential%20Energy%20Consumption%20Survey%20\(RECS\)-f1](http://www.eia.gov/todayinenergy/detail.cfm?id=10271&src=%E2%80%B9%20Consumption%20%20%20%20Residential%20Energy%20Consumption%20Survey%20(RECS)-f1)

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