ANSWERING AMERICA

QUESTION 4: SHOULD WASHINGTON DO MORE TO SAVE COAL?

THE BUSINESS CASE AGAINST TRUMP’S AGENDA
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SHOULD WASHINGTON DO MORE TO SAVE COAL?

ANSWER: NO.

TAXPAYERS ALREADY SPEND BILLIONS OF DOLLARS EACH YEAR SUBSIDIZING COAL COMPANIES. AUTOMATION, SURFACE MINING, AND NATURAL GAS ARE THE REAL THREAT TO THE COAL INDUSTRY.
Obama’s war on coal is killing American jobs, making us more energy dependent on our enemies and creating a great business disadvantage.1

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- PRESIDENT DONALD TRUMP

1 4
2 5
3 6

1 Coal subsidies total $4 billion per year, or about $75,000 for every coal job in the U.S.

2 Automation has been killing coal jobs since the ’50s, just as it has been in many other industries.

3 Surface mining started eliminating coal jobs in the ’90s, because it’s cheaper than underground mining and requires fewer miners.

4 Natural gas started replacing coal about 10 years ago, because it’s cheaper and cleaner, which means coal jobs in West Virginia are turning into gas jobs in Pennsylvania.

5 For Iowa, Michigan, Ohio, and Wisconsin, switching from fossil fuels to renewables could generate $58 billion in local investment and jobs.

6 Doubling down on coal for jobs doesn’t make sense today. With renewables generating nearly two-thirds of global energy by 2050, relying on coal makes even less sense for tomorrow.
Taxpayers have spent $120 billion subsidizing coal companies since WWII.

**Taxpayer Subsidies for Coal Companies**

<table>
<thead>
<tr>
<th>Subsidy Type</th>
<th>Amount (in billions of dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Preferences (Credits, incentives, deductions)</td>
<td>$40</td>
</tr>
<tr>
<td>Exemption from regulations (Exempting coal plants from safety or environmental regulations)</td>
<td>$19</td>
</tr>
<tr>
<td>Federally-funded R&amp;D</td>
<td>$43</td>
</tr>
<tr>
<td>Market activity (Federal coal leases; subsidized land and coal prices)</td>
<td>$11</td>
</tr>
<tr>
<td>Government services</td>
<td>$3</td>
</tr>
</tbody>
</table>

The cost of coal subsidies:

- $4B per year
- $75K per job
TAXPAYERS COVER OTHER COSTS FOR COAL COMPANIES

MINES
WE ARE CLEANING UP 500,000 ABANDONED MINES
Coal companies have abandoned approximately 500,000 hardrock mines across the U.S., with an estimated cleanup cost as high as $54 billion.4

COAL COMPANIES UNDERFUNDED HEALTH CARE FOR MINERS — LEAVING SICK WORKERS AND THEIR FAMILIES TO FEND FOR THEMSELVES
Government aid for sick miners could exceed $15 billion by 20506

CASE STUDY: COAL PLANTS SITUATED IN OHIO FLOOD PLAINS THREATEN CLEAN WATER?
Twenty-one coal plants with ash ponds are within a quarter-mile of the Ohio River. All are susceptible to flooding and five of them are in high-risk flood zones.

Twenty-five million people live in the Ohio River Basin and more than three million Americans get their drinking water from the Ohio River.

The Ohio River has been elevated for the past year, running four times the normal flow, increasing risk of coal contamination.

10 OHIO PLANTS have already contaminated local groundwater.

FEBRUARY 20, 2019
U.S. MINING SITES DUMP 50 MILLION GALLONS OF FOULED WASTEWATER DAILY5

PBS NEWSHOUR

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SURFACE MINING OUT WEST HAS BEEN ELIMINATING COAL JOBS SINCE THE ’90S, BECAUSE IT IS CHEAPER, SAFER, AND REQUIRES FEWER MINERS.

MINING IS EASIER OUT WEST...

WYOMING MINES PRODUCE

8X MORE COAL PER WORKER THAN WEST VIRGINIA

WHICH MAKES WESTERN COAL 5X CHEAPER...

COST

WHICH EXPLAINS WHY UTILITIES SWITCH TO WESTERN COAL...

PRODUCTION

UNFORTUNATELY, WESTERN COAL MINES DON’T EMPLOY AS MANY WORKERS, PER TON

SURFACE MINING OUT WEST HAS BEEN ELIMINATING COAL JOBS SINCE THE ‘90S, BECAUSE IT IS CHEAPER, SAFER, AND REQUIRES FEWER MINERS.
NATURAL GAS HAS BEEN REPLACING COAL JOBS FOR ABOUT 10 YEARS, BECAUSE IT’S CHEAPER AND CLEANER THAN COAL

**NATURAL GAS PRICES KEEP FALLING**

New fracking technology and horizontal drilling techniques reduced natural gas costs by nearly two-thirds over the past 13 years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Natural Gas Price per Thousand cu ft</th>
</tr>
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<tbody>
<tr>
<td>2006</td>
<td>$10.8</td>
</tr>
<tr>
<td>2019</td>
<td>$4.1</td>
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**COAL PLANTS CAN’T COMPETE**

Of coal plants in the U.S., 72% are unprofitable when compared to an equivalent natural gas plant.

ACCOUNTING FOR ANTICIPATED COSTS

98% OF U.S. COAL PLANTS ARE NOT PROFITABLE

**AS COAL-FIRED PLANTS AGE, UTILITIES REPLACE THEM WITH NATURAL GAS**

COAL AND NATURAL GAS MARKET SHARE

OIL AND GAS EMPLOYMENT RISES AS COAL EMPLOYMENT DROPS

**COAL JOBS**

- 2000: 73,700
- 2019: 52,600

**OIL AND GAS JOBS**

- 2000: 126,100
- 2019: 150,000

**CUTTING RENEWABLES INVESTMENT**

**SURFACE MINING**

**ADDITIONAL COSTS**

**AUTOMATION**

**COAL ARGUMENT**

**ASH COAL EXPERTS**

**TRUMP RECORD**

**ENDNOTES**
COAL EMPLOYS FEWER PEOPLE THAN YOU MIGHT THINK

MORE AUTO JOBS IN ALABAMA THAN COAL JOBS NATIONWIDE

53K COAL JOBS NATIONWIDE \(^{26}\)

57K AUTO JOBS IN ALABAMA \(^{27}\)

MORE TEACHERS AND NURSES IN WEST VIRGINIA THAN COAL WORKERS

EMPLOYMENT IN WEST VIRGINIA

FOR EVERY COAL JOB IN THE U.S., 16 RENEWABLE ENERGY JOBS \(^{31}\)

- LIQUID BIOFUELS
- SOLAR PHOTOVOLTAIC
- WIND ENERGY
- SOLID BIOMASS
- HYDROPOWER
- COAL PRODUCTION
- GEOTHERMAL ENERGY
- SOLAR HEATING/COOLING
- BIOMASS
- CONCENTRATED SOLAR POWER

COAL JOBS

COAL MINERS \(^{28}\)

TEACHERS \(^{35}\)

NURSES \(^{36}\)

FOR EVERY COAL JOB IN THE U.S., 16 RENEWABLE ENERGY JOBS \(^{31}\)
TRUMP CAN’T BRING BACK MINING JOBS, COAL CEO WARNS

“Robert Murray, founder and chief executive of Murray Energy — the nation’s largest privately held coal mining company — told the Guardian that many mining jobs were lost to technology and competition, rather than regulation.

Trump can’t really change that, Murray said.

‘I suggested that he temper his expectations. Those are my exact words,’ Murray said. ‘He can’t bring them back.’”

S&P Global
UNDER TRUMP, “SAVING” COAL MEANS CUTTING BACK ON RENEWABLE ENERGY INVESTMENT

TRUMP’S 2020 BUDGET WOULD CUT RENEWABLE ENERGY

D.O.E. OFFICE OF ENERGY EFFICIENCY & RENEWABLE ENERGY FROM $2.4 BILLION TO $696 MILLION

D.O.E. OFFICE OF SCIENCE FROM $6.6 BILLION TO $5.5 BILLION

ELIMINATES $366 MILLION ALLOCATED TO ADVANCED ENERGY LABS ESTABLISHED BY PRESIDENT GEORGE W. BUSH.

EVEN THOUGH RENEWABLE ENERGY COULD GENERATE 62% OF GLOBAL ENERGY BY 2050

PROJECTED SHARE IN 2050

SOURCE: Bloomberg New Energy Finance
ACROSS THE MIDWEST, SWITCHING FROM FOSSIL FUELS TO RENEWABLES = A $58 BILLION “BUY LOCAL” OPPORTUNITY

CONSUMERS IN THE U.S. ARE ALREADY MAKING THE SWITCH

U.S. COAL CONSUMPTION VS. U.S. RENEWABLE ENERGY

IF FULLY EMBRACED, THIS TREND COULD BE PARTICULARLY PROFITABLE IN THE MIDWEST

Iowa, Michigan, Ohio, and Wisconsin are net energy importers, due largely to their dependence on fossil fuels. Each has renewable energy capacity that could support local investment and jobs.

IF THESE STATES MOVED THEIR ENERGY IMPORTS TO RENEWABLE PRODUCTION AT HOME, $58.3 BILLION AND NEW JOBS WOULD COME TO THE MIDWEST.
TRUMP RECORD ON COAL WORKERS AND THEIR FAMILIES

UNCONCERNED WITH MINERS' HEALTH

Trump and Senate Republicans let the black lung benefit excise tax fall by half last year, putting health care for miners suffering from black lung at risk.40

SIDES WITH INDUSTRY EXECS OVER WORKERS

Trump appointed Bill Wehrum, former industry lawyer, as his chief air regulator. Wehrum has argued in court against standards to protect miners and construction workers from dangerous silica dust.41

IGNORES PROTECTIONS FOR MINERS

Miners Pension Protection Act, which would keep miners' pension and health care funds solvent, has been introduced four times. Senate GOP and Trump have not pushed for a vote.42

WOULD CUT FUNDS FOR COAL COMMUNITIES

Trump's first budget proposed eliminating the Appalachian Regional Commission, which supports economic development and worker training programs across Appalachia (including Pennsylvania and Ohio).43


ENDNOTES


43. Ibid.