

## SHORT AND SWEET SUMMARIES OF WMC POSITIONS

### **Support for Coal Use – Advance Coal Technologies and Preserve Coal Plants:** WMC

applauds President Trump’s Executive Order “Promoting Energy Independence and Economic Growth” and EPA’s plans for review of regulations for carbon dioxide emissions from power plants (Clean Power Plan) for possible revision, suspension, or rescinding. These actions will help retain the U.S. coal generating fleet which is essential to energy diversity and security in America and to affordable, reliable electricity. They reinforce the administration’s “All of the Above” energy policy and support the continued use of coal, which WMC endorses.

**Action:** WMC requests support for revising the Clean Air Act New Source Review regulatory program, and revision of the EPA’s 2015 ozone standard. WMC urges Congressional support for coal technology advancement, including robust DOE Fossil Energy R&D funding, and expanding 45Q tax credits for Carbon Capture and Storage.

### **Support for Coal Mining, a Reasonable Energy Policy, and Removing Unnecessary**

**Regulations:** WMC applauds the quick legislative action in February 2017 to rescind the Interior Department’s November 2016 Stream Protection Rule. WMC appreciates Interior Secretary Zinke’s issuance of a Secretarial Order in March 2017 to revoke the three-year federal coal leasing moratorium.

**Action:** WMC calls for continued efforts by the Interior Department and Congress to facilitate coal and minerals development, including by streamlining the permitting and the National Environmental Policy Act (NEPA) processes. WMC also supports appropriate streamlining of federal agencies, including the Mine Safety and Health Administration and the Office of Surface Mining, Reclamation, and Enforcement.

**CERCLA 108(b):** WMC recognizes that with the existing state and federal bonding programs there is no need for EPA to develop a rule for financial assurance for hardrock mining. The Small Business Administration’s evaluation of this proposed plan shows it will not benefit the environment and will cost mining companies 100’s of millions of dollars resulting in pushing more jobs overseas.

**Action:** EPA’s Final Rule should recognize the success of the state and federal financial assurance and not add duplicative and unnecessary additional financial assurance.

**Sage Grouse:** WMC recognizes that withdrawing 10 million acres from mineral exploration and development is detrimental to the mining industry. The proposed land use amendments by the USFS and BLM will deny access to resource exploration and development pushing more jobs overseas.

**Action:** Congress needs to provide funds for the agencies to prepare the supplemental EIS per the court’s order. The EIS will demonstrate that the excessive restrictions proposed by the USFS and BLM for Sagebrush Focal Areas will not protect the Sage Grouse.



**EPA's Proposed CERCLA § 108(b) Financial Assurance Rule for Hardrock Mining  
Costs Industry \$171 Million/Year  
Saves Government Only \$15.5 Million/Year**

***Final Rule Should Establish This Costly and Duplicative Rule is  
Unjustified and Unnecessary***

**EPA's January 2017 CERCLA § 108(b) Proposed Financial Assurance Rule for hardrock mines duplicates existing state and federal requirements and is not necessary to protect the environment or to shield American taxpayers from exposure to cleanup costs at today's mines.**

**The Small Business Administration's Office of Advocacy's January 19<sup>th</sup> letter to the EPA Administrator states the Proposed Rule should be withdrawn:**

*"Advocacy strongly recommends that EPA withdraw this ill-advised proposal," stating EPA is "without evidence that a problem exists warranting intervention...There is no statutory need for this regulation, nor are there any significant environmental benefits demonstrated by EPA...EPA is proposing a rule that would cost the industry \$171 million annually for an annual savings to the government of \$15.5 million by its own estimate, to address risks that are already addressed by state and Federal agencies."*

**EPA allows existing state and federal bonding programs to reduce or eliminate CERCLA § 108(b) financial assurance, which proves that EPA's Proposed Rule duplicates these programs.**

- Because EPA recognizes these programs satisfy CERCLA § 108(b) bonding requirements, EPA does not need a duplicative layer of CERCLA § 108(b) financial assurance.

**EPA argues that CERCLA cleanup costs incurred at old, pre-regulation mines and non-mining industrial facilities show CERCLA § 108(b) financial assurance is needed for modern mines.**

- What happened in the past at pre-regulation or under-regulated sites is not relevant to the proposed rule, which covers current operations – not old sites that are no longer operating.

**When Congress enacted CERCLA § 108(b) in 1980, it directed EPA to obtain evidence of financial assurance "consistent with the degree and duration of risk associated with the production, treatment, storage, or disposal of hazardous substances."**

- This directive made sense three decades ago when there were few bonding programs in place. However, today's state and federal bonding programs make CERCLA § 108(b) obsolete.
- State regulators, BLM, and the US Forest Service have provided EPA with overwhelming evidence that existing state and federal bonding requirements for hardrock mines reduce environmental and human health risks to an insignificant level. These comprehensive state and federal programs eliminate any reason for the CERCLA § 108(b) financial assurance rule.

**Federal regulators already hold over \$3.5 billion in financial assurance for mines located on public lands; state regulators in key mining states have robust bonding programs.**

- For example, Alaska has \$844 million in financial assurance; Nevada has \$2.66 billion.

**Many states, BLM, and the US Forest Service use Standardized Reclamation Cost Estimator (SRCE) software or similar reclamation cost estimating tools to calculate financial assurance obligation based on detailed, site-specific factors at each mine.**

- Bonds calculated with these tools use government-contracting rates that assume state and federal agencies will perform the reclamation work. The resulting bonds fully protect the environment and minimize the likelihood of inadequate agency funds to respond to a future release of hazardous substances, natural resource damages, and human health risks.

**State and federal regulations already compel operators to responsibly remediate their mine sites if problems develop – eliminating the need for taxpayer-funded cleanups.**

- If a mine operator does not or cannot address a problem, the agencies have comprehensive bonds to pay for site remediation; taxpayers do not pay for these costs.

**EPA's Proposed Rule uses one-size-fits-all formulas with simplistic factors like acres disturbed, water treatment rates, and precipitation to calculate financial assurance requirements.**

- Bonds based solely on these factors overestimate or underestimate financial assurance requirements. These seriously flawed formulas must be rejected – they cannot be fixed.

**Proceeding with the Proposed Rule is pointless because it violates specific directives in Executive Orders (EOs) issued by Presidents Clinton, Obama, and Trump.**

- President Trump's March 1, 2017 Regulatory Reform EO 13777: requires repeal, replacement, or modification of regulations that cost jobs, are outdated or unnecessary, have no cost benefit, and interfere with regulatory reform initiatives.
  - *EPA should rescind the Proposed Rule in response to EO 13777 because it is inconsistent with the mandates in this EO and develop a Final Rule that complies with the regulatory directives in EO 13777 and other EOs to avoid duplicative and burdensome regulations with no cost benefits.*
- President Trump's March 28, 2017 EO 13783: directs all federal agencies to conduct a review of existing actions that harm domestic energy production and to suspend, revise, or rescind regulations that unduly burden the development of domestic energy sources.
  - The Proposed Rule creates substantial burdens on the development of minerals essential to energy production and distribution, directly conflicting with this EO.
- President Clinton's September 1993 EO 12866: requires rules to use the most cost-effective option to achieve regulatory benefits, impose the least regulatory burden, avoid duplicating existing rules, harmonize federal regulations with state, local, and tribal regulations, and consider alternatives.
- President Obama's January 2011 EO 13563: supplements and reaffirms the principles in EO 12866, recognizes that some industry sectors are subject to numerous regulations that may be redundant, and requires elimination of regulatory redundancies to reduce regulatory burdens.

**EPA's Final Rule should establish there is no justification for a  
CERCLA § 108(b) financial assurance program because  
state and federal bonding programs eliminate the need for EPA's involvement**

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## **BLM's and US Forest Service's 2015 Sage-Grouse Land Use Plan Amendments Create Unworkable and Burdensome Land Use Restrictions and Prohibitions**

### ***Plans Affect over 173 Million Acres of Habitat in Eleven Western States Propose Withdrawing 10 Million Acres from Mineral Exploration and Development***

**The September 2015 Records of Decision implementing Land Use Plan Amendments (“LUPAs”) for the Greater Sage Grouse (“GSG”) include sweeping land use restrictions and prohibitions that conflict with the multiple use principles that govern the Nation’s public lands.**

- The LUPAs severely limit mineral exploration and development; oil and gas development; geothermal, wind, and solar energy; ranching; recreation; roads and travel; the construction of new power lines and pipelines; and other important public land uses.

**The LUPAs govern land uses in GSG habitat in two regional planning areas.**

- The Great Basin Region: Idaho, Nevada, Northeastern California, Southwestern Montana, Oregon, and Utah; and the Rocky Mountain Region: Colorado, Montana, North Dakota, South Dakota, and Wyoming.

**The onerous land use restrictions and prohibitions in the LUPAs include:**

- Land closures and strict limits on new disturbances in Priority Habitat
- Significant restrictions on new disturbances in General Habitat
- Seasonal use constraints that put lands off limits for up to 10 months each year
- A three percent human disturbance cap that severely constrains project development
- Constraints on allowable locations for new utility corridors
- Widespread travel restrictions, road closures, and limitations on new road building
- Unachievable vegetation habitat objectives for rangelands
- Impractical No Surface Occupancy requirements for oil and gas that obstruct domestic energy production in violation of President Trump’s Energy Independence Executive Order (13783)

**The Final Environmental Impact Statement (“EIS”) prepared for the LUPAs added Sagebrush Focal Areas (“SFAs”) affecting 10 million acres in Idaho, Montana, Nevada, Oregon, Utah and Wyoming where special restrictions, land closures, and prohibitions apply.**

- Because the SFAs were not included in the Draft EIS, the public was deprived of its rights under the National Environmental Policy Act (“NEPA”) to provide comments on the SFAs.

**The SFA special restrictions and prohibitions include:**

- Proposed withdrawal from operation of the Mining Law putting lands off-limits to mining
- Stringent No Surface Occupancy rules for oil and gas development and geothermal energy
- Closure of lands for wind and solar energy development
- Special scrutiny and likely cutbacks for grazing permits

**The LUPAs implement the landscape-scale planning and mitigation policies in Secretary Jewell’s Secretarial Order 3330 that requires net conservation gain and compensatory mitigation for projects on BLM-administered lands.**

**Secretary Zinke's recent Secretarial Order 3349 revoked Secretarial Order 3330.**

- Zinke's Order rejects the net conservation gain requirement for projects on public lands and requires a review of all actions (like the LUPAs) that were undertaken pursuant to Secretarial Order 3330 so they may be reconsidered, modified, or rescinded.

**The LUPAs were the precursor to BLM's Planning 2.0 Regulations that Congress recently repealed under the Congressional Review Act.**

- The repeal of Planning 2.0 and Secretary Zinke's Secretarial Order 3349 significantly undermine the land management philosophies that are the basis for the LUPAs and call into question the viability of many of the LUPAs' land use decisions.

**BLM's Draft EIS for the proposed 10 million acre SFA mineral withdrawal clearly shows that prohibiting mineral activities is unnecessary to protect GSG.**

- The Draft EIS predicts future exploration and mining would disturb a mere 2,620 acres in the 10-million acre SFA in the next 20 years, causing a miniscule impact on GSG habitat.
- The DEIS reveals that withdrawing the SFA will have an enormous adverse socioeconomic impact on state and local governments – costing roughly \$700 million in lost annual economic output in the region for the next 20 years (a cumulative loss of \$14 billion).
- BLM should complete the Final EIS for the proposed mineral withdrawal and select the No Action Alternative (no withdrawal) because the withdrawal is unnecessary to protect GSG.

**The mineral withdrawal Draft EIS has important implications for future reviews of the GSG's listing status under the Endangered Species Act.**

- The insignificant impact that mining has on GSG habitat documented in the Draft EIS is consistent with the U.S. Fish and Wildlife Service's 2015 not warranted listing determination which states mining affects less than 0.1 percent of GSG habitat range wide.

**The LUPAs spawned numerous lawsuits in several federal district courts challenging the land use restrictions and prohibitions and asserting that BLM and the Forest Service violated numerous laws in preparing the EIS documents for the LUPAs.**

**In the Nevada lawsuit, *Western Exploration, LLC et al. v. U.S. Department of the Interior et al.*, the federal district court in Nevada recently remanded the Great Basin Record of Decision due to NEPA violations and ordered BLM and the Forest Service to prepare a Supplemental EIS.**

- The court ruled that changes between the Draft EIS and the Final EIS, including the last-minute addition of the SFAs and changes to the habitat classification map, were unlawful because the public had no opportunity to comment on these changes as NEPA requires. The Supplemental EIS must evaluate these changes and let the public provide comments.

**The Amended LUPAs must comply with Secretarial Order 3349 and new Executive Orders**

**Congress should provide funds for the agencies to prepare the Supplemental EIS per the Court's remand order and create a strong record that the LUPA land use restrictions and mineral withdrawals are not necessary to protect GSG**



## Administration Restores Reasonable Energy Policy – Supports Coal Mining, Jobs, & Economic Benefits and Removes Unnecessary Regulatory Burdens

Recent acts by Congress and President Trump have begun to relieve the excessive regulatory burdens on coal imposed in recent years. This is important to the continued mining and development of our nation's abundant coal resources. U.S. coal comprises 27% of global coal reserves, a larger share than any other country. Coal is essential to our diverse domestic energy mix.

**Stream Protection Rule** – The Women's Mining Coalition applauds the quick legislative action in February 2017 through the use of the Congressional Review Act to rescind the Interior Department's November 2016 Stream Protection Rule. This regulation would have severely reduced coal production, resulted in massive job loss, and significantly eroded federal and state tax revenues while offering no incremental environmental benefit. The Interior Department's own annual reviews of state programs through its Office of Surface Mining, Reclamation, and Enforcement (OSM) have shown adequate stream protection with existing regulations.

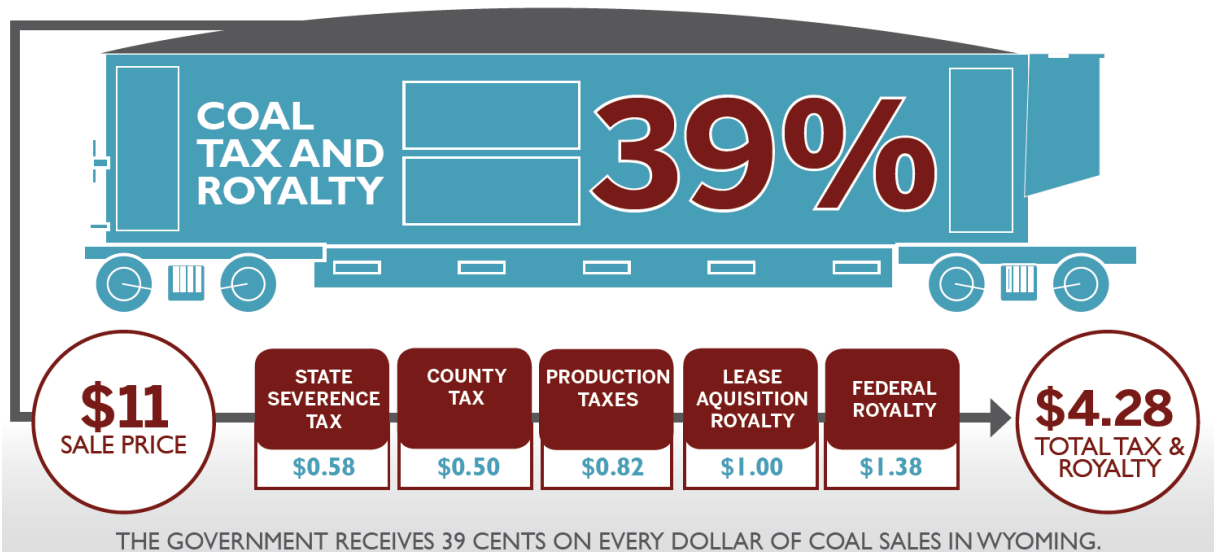
The significance of the economic impact of coal mining can be seen in the chart below. In 2015, the coal sector was responsible for over 500,000 jobs, over \$37 billion in labor income, and over \$65 billion in total GDP contribution. Annual wages and salaries at coal mining operations averaged over \$83,000 in 2015.

Sector	Coal Mining
<b>Employment</b>	
Direct	146,820
Indirect & Induced	388,552
Total	535,372
<b>Labor Income (\$billions)</b>	
Direct	\$13.2
Indirect & Induced	\$23.9
Total	\$37.2
<b>Contribution to GDP (\$billions)</b>	
Direct	\$25.6
Indirect & Induced	\$40.0
Total	\$65.6

**Coal Leasing Moratorium** – In conjunction with President Trump's recent Executive Order on energy independence and economic growth, Interior Secretary Ryan Zinke issued a Secretarial Order in March 2017 to revoke the three-year federal coal leasing moratorium issued in January 2016. Importantly, coal

mined under federal leases accounts for about 40% of total U.S. coal production. Further, the moratorium was inconsistent with the Interior Department’s mandate under the Mineral Leasing Act to provide for the maximum economic recovery from coal on federal lands. Additionally, Secretary Zinke’s new Secretarial Order stops the use of taxpayer dollars for the unnecessary programmatic review of the federal coal leasing program. Secretary Zinke is also acting to reinstate the Royalty Policy committee, a policy advisory group of various stakeholders which will address issues of fair market value and revenue collection from energy and mineral resources.

Coal mined under federal leases is an important contributor to federal, state, and local tax bases, as can be seen in the Wyoming graphic below.



**WMC appreciates these actions which recognize the importance and contributions of coal and coal communities.**

**WMC calls for continued efforts by the Interior Department and Congress to facilitate coal and minerals development, including streamlining the permitting and the National Environmental Policy Act (NEPA) processes.**

**WMC also supports appropriate streamlining of federal agencies, including the Mine Safety and Health Administration and OSM which continue to garner a disproportionately high level of funding despite coal mines and coal employment decreasing by more than 40% over the past 5 years. Congress and the administration should work together through the budget and appropriations process to size these agencies commensurate with the changes in the coal industry. This should include reallocating resources from inspectors to technical and permitting functions.**

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# Policy Support Important to Advance Coal Technologies and Preserve Existing Coal Plants

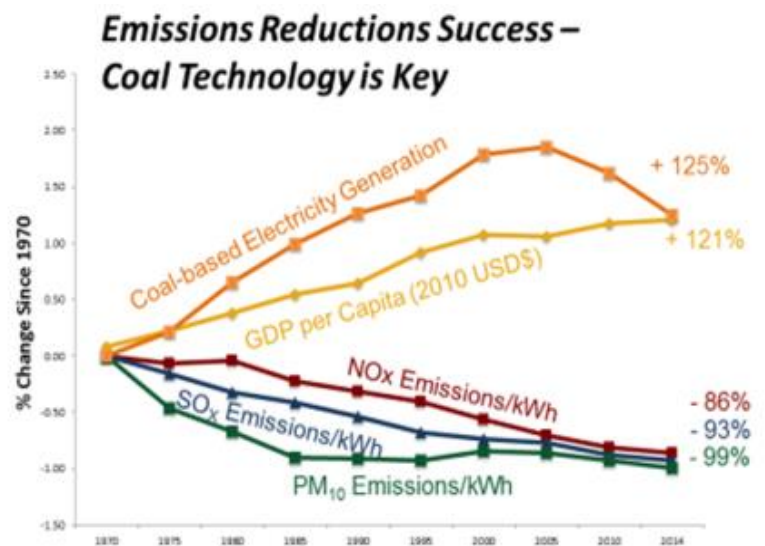
The USA has an incentive to lead the world in Advanced Coal Technologies – according to a 2014 IHS Energy study, the diversity of a U.S. generation fleet anchored by coal saves Americans \$93 billion annually and reduces by half the potential variability of monthly power bills. Sustaining a reliable, diverse U.S. generating fleet and well-paying coal-related jobs requires: 1) continuing the operation of existing coal plants by investing in efficiency upgrades and life extension projects, and 2) creating long term investment certainty and providing incentives for the power sector to build new high efficiency, low emissions (HELE) plants. Such plants can reduce emissions by more than 30%, including CO<sub>2</sub> reductions, compared to older plants they would replace. The following are needed:

- 1) **Support for Research and Deployment of Advanced Coal Technologies** – support is needed for research and deployment of advanced coal power plant technologies, including HELE and Carbon Capture (Use) and Storage (CCS or CCUS). This includes robust funding for the Department of Energy’s Fossil Energy R&D program, which has been instrumental in the development and widespread deployment of other emissions reductions technologies (see graph ).

The tools needed now for advanced coal technologies include tax credits for CCUS and Enhanced Oil Recovery, creation of Private Activity Bonds for financing, and Price Stabilization Contracts to diminish the volatility of oil price fluctuation on CCUS Enhanced Oil Recovery Projects. For comparison, the development of renewables capacity was supported with tax credits of \$37 billion during 2010-2014 while coal received only \$1 billion, according to a National Coal Council study. Yet renewables have been generating less than 5% of U.S. electricity, while coal has been at 30-35%. Policy parity is

needed for coal. Advancing coal technologies in the U.S. can achieve broader benefits by providing export opportunity for U.S. companies and improving global air quality as they are deployed worldwide.

- 2) **Revise the Clean Air Act New Source Review (NSR) Program** – NSR is a pre-construction permitting program, and widely viewed as a regulatory obstacle to power plant efficiency improvements (including by EPA in a 2002 report to the President). Upgrades and modifications to existing plants that lower emission rates and extend the economic life of a plant should not trigger NSR review.
- 3) **Revise the 2015 Ozone National Ambient Air Quality Standard** – EPA’s request to delay oral argument in the litigation over the 2015 standard was recently granted. This provides the opportunity to revisit the 2015 standard, which was reduced from 75 parts per billion to 70 parts per billion. The new standard is at or near the level of naturally occurring ozone in some parts of the country. It could mean additional NOX controls on coal and natural gas power plants, risking shutdowns of even more coal capacity.



Approximately \$111 billion was invested through 2015 to achieve these emissions reductions.

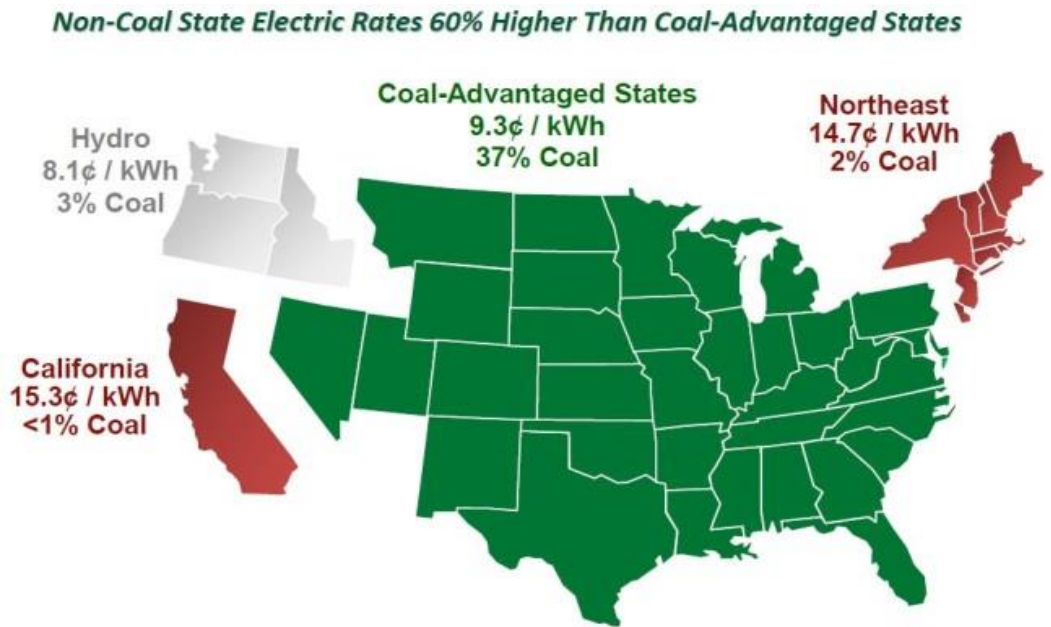
Source: USDA 2015 & EIA 2015, American Coalition for Clean Coal Electricity



## The USA has a need to preserve existing Coal Generating Plants

In March 2017, President Trump signed the Executive Order “Promoting Energy Independence and Economic Growth”. The Order directs the Environmental Protection Agency (EPA) Administrator to review, and if appropriate, suspend, revise or rescind EPA’s “Clean Power Plan” for CO<sub>2</sub> emissions regulations of existing electric generating plants and its CO<sub>2</sub> regulations for new and modified electric generating plants.

WMC is grateful for this important Executive Order which will facilitate the retention of the power sector’s coal-based generating fleet. Coal is an essential fuel source for affordable, reliable electricity for America’s businesses and households, accounting for 30% of the fuel mix for 2016 electricity generation. It is an indispensable part of energy diversity and security in America.



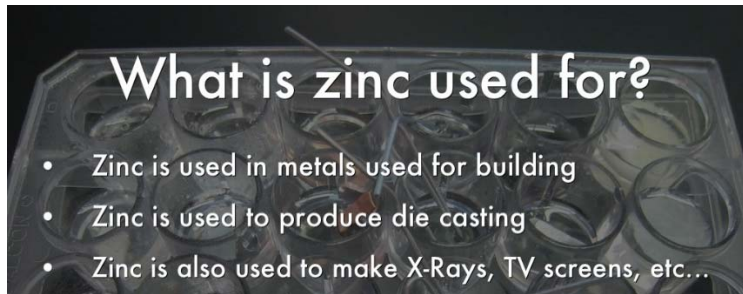
Source: U.S. Energy Information Administration, Electric Power Monthly, February 2017.  
2016 average retail electricity prices per kWh. Weighted average of CA and NE states equals 14.9 cents per kWh. ID, OR, WA grouped separately due to hydropower.

**EPA CO<sub>2</sub> Emissions Regulations Background** – The unprecedented design and scope of EPA’s Clean Power Plan for existing generating plants would dramatically change how electricity is produced, distributed, transmitted, and used in the U.S. In February 2016, the Supreme Court issued a stay of the Clean Power Plan, demonstrating the serious concerns of our nation’s most senior legal authorities. The rule’s strict CO<sub>2</sub> emissions targets for states would have set the U.S. on a long term path of more costly, inefficient, and intermittent renewable sources for electric generation. EPA’s CO<sub>2</sub> emissions rules would have the following impacts to the American people and businesses:

- Cause high economic costs estimated to be at least \$29 billion per year.
- Strand up to \$111 billion in investments made through 2015 to upgrade coal plants to meet other EPA regulations.
- Cause annual coal production to decline to 619 million tons versus 861 million tons by 2040.
- Result in coal plant shutdowns of 39,000 MW (1,000 MW powers 750,000 homes). This is about 19% of the 2015 coal fleet, which had already shrunk due to retirements associated with other EPA regulations.
- Stop investment needed for continued development CCS and CCUS technologies in the U.S. to drive them to maturity and cost-effectiveness. The first commercial scale CCS application in the world – located in Canada – only began operations in the fall of 2014, and a second was brought on line in Texas in late 2016.

**WMC endorses the Administration’s “All of the Above” energy policy and the continued use of coal.**

**WMC urges Congressional support for coal technology advancement, including robust DOE Fossil Energy R&D funding, and expanding 45Q tax credits for Carbon Capture and Storage.**



Zinc is also used in alloys such as brass, nickel silver and aluminium solder. **Zinc oxide** is widely used in the manufacture of very many products such as paints, rubber, cosmetics, pharmaceuticals, plastics, inks, soaps, batteries, textiles and electrical equipment.

## Copper

**Copper** commonly comes from minerals such as cuprite, azurite, chalcopyrite, bornite and malachite. **Copper** is soft and able to transmit electricity and heat very effectively. It can't really be damaged by water and is widely used in construction. Because bacteria can't grow on it, **copper** is also used in hospitals.

All US coins are now **copper** alloys, and gun metals also contain **copper**. Most **copper** is used in electrical equipment such as wiring and motors. This is because it conducts both heat and electricity very well, and can be drawn into wires.

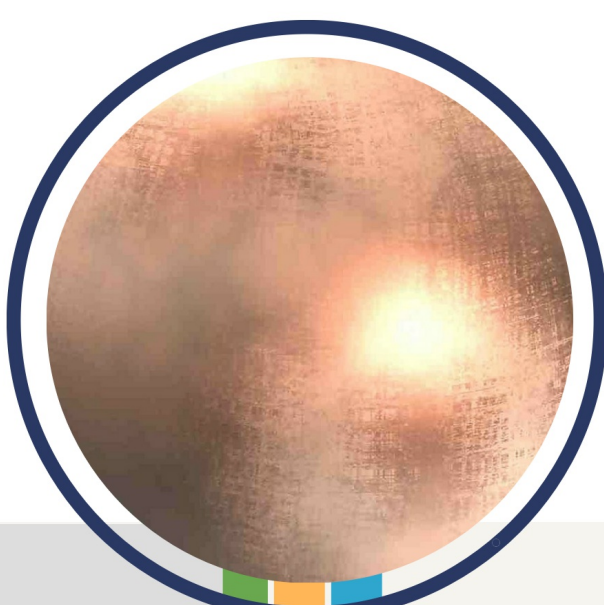
The **copper** element plays a vital role in shaping our **lives**. ... One of the reasons **copper** is so important is that it can be made into alloys. That means it can be combined with other metals to make new **copper** alloys, like brass and bronze. These are harder, stronger and more corrosion resistant than pure **copper**.

## Rare Earths

Rare earth-enabled products and technologies help fuel global economic growth, maintain high standards of living, and even save lives. Scandium, a silvery-white metal, is a non-**lanthanide** rare earth. It is used in many popular consumer products, such as televisions and fluorescent or energy-saving lamps.

**Uses of Rare Earth Elements.** **Rare earth metals** and alloys that contain them are used in many devices that people use every day such as computer memory, DVDs, rechargeable batteries, cell phones, catalytic converters, magnets, fluorescent lighting and much more.

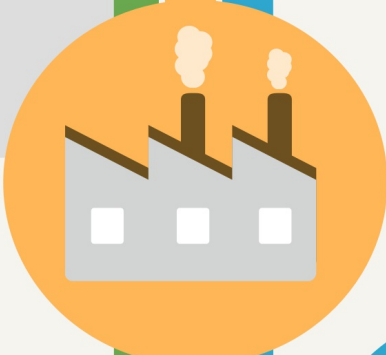
# Copper & You



**Domestic production of important commodities like copper ensures control of the quantity, quality, availability, high environmental standards, price, workers' wages, and workers' safety.**

**34%**

The U.S. imports 34% of its copper supply.

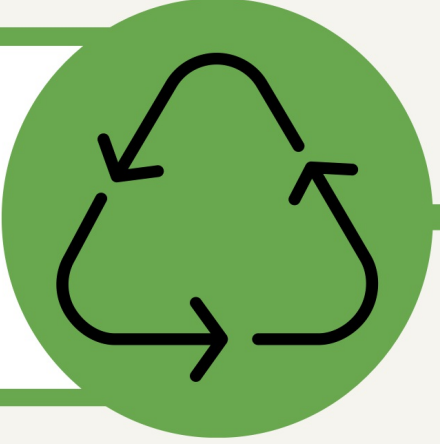


Copper has been used for 10,000 years.

Copper is a strategic mineral and is necessary for defense technology & national security.



Copper is 100% recyclable without any loss of quality, & third most recycled metal. The world's growing demand for copper cannot be met by recycling alone.

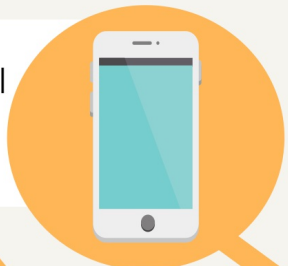


Copper is used in many products manufactured in the U.S. & abroad.

Used in renewable energy generation: solar, wind, geothermal.



Used in high-tech devices such as cell phones, iPads, computers of all sizes.



65% of copper mined goes to electrical purposes, including power generation & transmission.



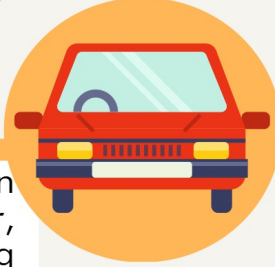
Used in infrastructure & construction.



The medical field uses copper for many applications due to its anti-microbial properties.



Traditional vehicles can contain as much as 99 lbs of copper, with electric vehicles using nearly twice as much copper.

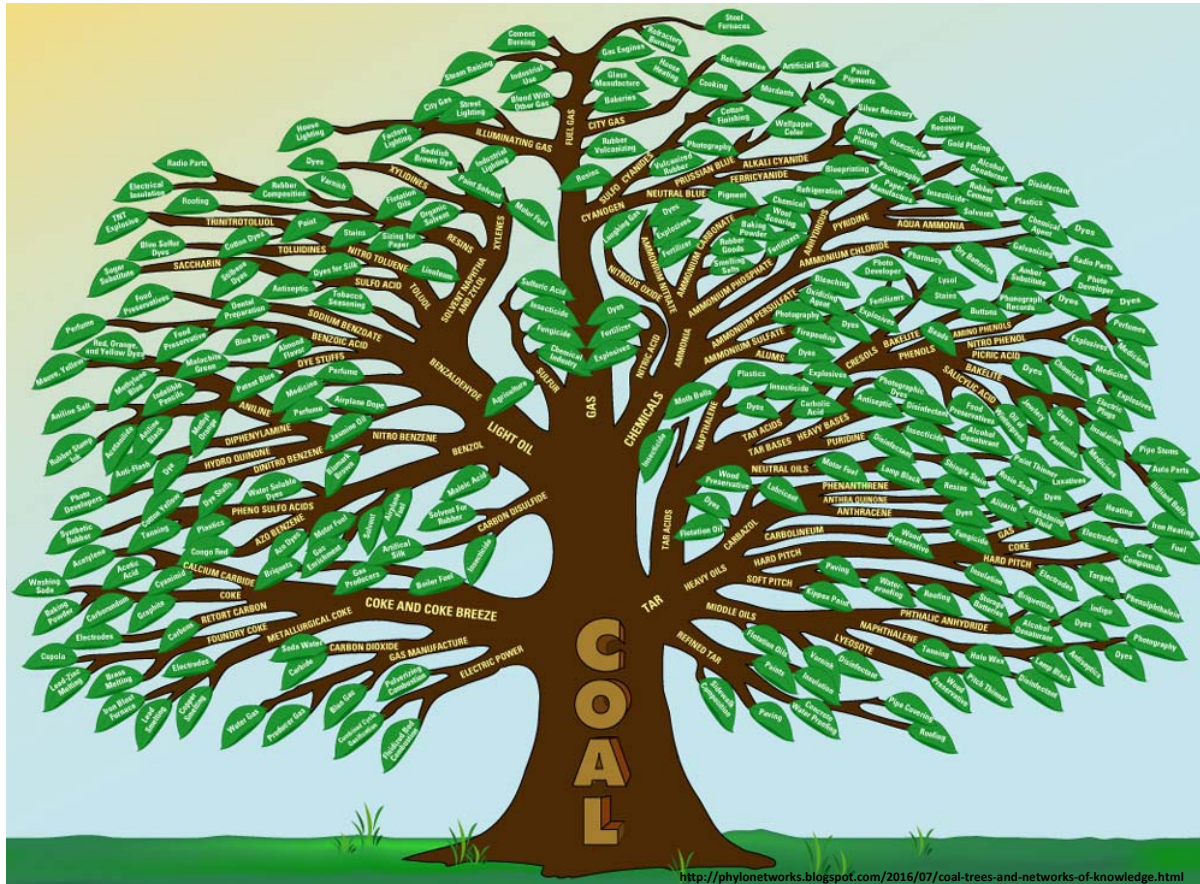




# Coal & You

An average American's residential and transportation energy consumption would require the burning of approximately 15,000 pounds of coal a year. That equals out to nearly 41 pounds of coal a day. If coal powered everything, every few days you would consume your body weight in coal.

Source: Energy Information Administration



Different types of **Coal** have different uses worldwide.

- Steam Coal - also known as thermal coal, mainly used in power generation (~6.8 billion tons annually)
- Coking Coal - also known as metallurgical coal, is mainly used in steel production (~600 million tons annually)

Other important worldwide uses of **Coal** include:

- Cement Manufacturing (~300 million tons annually),
- Paper mills (~150 million tons annually), and;
- Carbon Chemicals (~150 million tons annually)

**Coal** is also used in alumina refineries and by chemical and pharmaceutical industries. Several chemical products can be produced from the by-products of coal. Refined coal tar is used in the manufacture of chemicals, such as creosote oil, naphthalene, phenol, and benzene. Ammonia gas recovered from coke ovens is used to manufacture ammonia salts, nitric acid, and agricultural fertilizers. Thousands of different products have coal or coal by-products as components: soap, aspirins, solvents, dyes, plastics and fibers, such as rayon and nylon.

**Coal** is also an essential ingredient in the production of specialist products:

- Activated Carbon - used in filters for water and air purification and in kidney dialysis machines.
- Carbon Fiber - an extremely strong but lightweight reinforcement material used in construction, mountain bikes and tennis rackets; and
- Silicon Metal - used to produce silicones and silanes, which are in turn used to make lubricants, water repellents, resins, cosmetics, hair shampoos, and toothpastes.

For more info visit [WMC-USA.org](http://WMC-USA.org) or contact [wearewmc@wmc-usa.org](mailto:wearewmc@wmc-usa.org)