



Note: As part of their contributions to the RECLAIM POWER global days of action in October 2016 for energy transformation, several Reclaim Power organizations collaborated on these series of briefing papers on dirty, harmful energy sources and false energy solutions that contribute to climate change and endanger people's lives and welfare.

RESIST DIRTY HARMFUL ENERGY AND FALSE ENERGY SOLUTIONS

COAL

Coal is the biggest source of the world's electricity needs and is second to oil as a source of primary energy. In the last decade coal has been the fastest growing global energy source. Transnational corporations, international financial institutions, big energy investors, and many governments of both developed and developing countries have pushed greater coal usage. Their justification is that coal is cheap and therefore an important part of the supposed strategy for ensuring energy for all people. However, many local communities have been fighting coal projects for decades. They have felt the brunt of the harmful impacts and none of the promised benefits. In light of increasing awareness of and resistance to this dirty and harmful energy source, the industry created the myth of "Clean Coal."

The truth is:

Coal is NOT cheap. It comes with a horrifyingly huge cost to people and the environment

By literally tearing up the earth, surface coal mining (strip mining, open pit and mountain top removal) causes widespread deforestation, dispossession of community lands, soil erosion and landslides, water shortages, pollution and other problems. Coal dust can cover entire communities and pollute water bodies and poison humans and aquatic life. People who inhale or come in to contact with dust, soot, chemicals and other pollutants from coal mining suffer allergies, asthma attacks, bronchitis and other respiratory illnesses.



Toxins enter the water and air, creating acid rain and poisoning water sources.

Underground mining for deeper coal deposits is just as destructive. Waste tailings flow out of coal mines, especially abandoned facilities, and can leach into surrounding ground soil and water bodies. In addition to the carbon dioxide produced from the burning of coal, underground working and abandoned coal mines directly release methane (fugitive emissions) which, despite a shorter lifespan in the atmosphere, is a greenhouse gas 23 times more potent than carbon dioxide (CO₂).

The health impacts of coal mining and coal-fired power plants are severe. Studies show that exposure to coal-related pollution caused between 80,000 and 115,000 premature deaths and more than 20 million asthma attacks from 2011-12 in India alone.¹ A recent assessment of the health costs of coal in the United States estimated \$140 billion to \$242 billion a year.²

¹ http://india.blogs.nytimes.com/2013/03/22/indias-coal-power-plants-kill-tens-of-thousands-every-year-study-says/?_r=0

² http://green.blogs.nytimes.com/2011/02/17tallying-coals-hidden-cost/?_r=0

Chinese and international experts found that coal use in northern China reduced life expectancies by 5.5 years.³

Coal combustion spews a toxic brew of large quantities of carbon dioxide, sulphur dioxide, nitrogen oxides, mercury and other polluting matter. Below ground, in some abandoned mines, coal burns in the oxygen-filled seams giving off CO₂, methane, mercury and at least 40 toxic compounds that can escape through the soil and/or underground aquifers.

Coal fuels climate change, and exacerbates its impacts

The industrial revolution ushered in an economic system that involves huge and rapidly expanding consumption of energy and the use of coal as a key source of that energy. Throughout the history of industrialisation the use of coal accounts for a large part of the massive increase and accumulation of greenhouse gases (GHGs) in the atmosphere driving dangerous climate change. The toxic effects of coal also severely diminish the resilience of affected communities and hamper their capacity to deal with the impacts of climate change.

The harmful effects of climate change from a 0.8 degree Celsius temperature rise since pre-industrialization are already being felt by hundreds of millions of people across the globe. The 5th Assessment Report released in September 2013 by the Intergovernmental Panel on Climate Change (IPCC) – the world’s climate scientists – warns that climate change impacts are happening at a faster rate than expected and to prevent catastrophic climate change will entail much more drastic and immediate GHG emissions cuts than projected earlier. In 2011, the International Energy Agency (IEA) concluded that we had five years left to implement urgent energy reforms after which we would no longer be able to avoid catastrophic climate change. With less than three years away from that point-of-no-return, the world needs to urgently end all use of fossil fuels and shift as quickly as possible to clean and sustainable forms of renewable energy.

Coal is the most abundant fossil fuel day (compared to oil and gas) and is used widely. Emissions from coal are now the single biggest human contributor to current global greenhouse gas emissions. With its current low financial cost, coal continues to be preferred by big business who justifies their continued use and promotion of coal by arguing that unproven future technologies may possibly be able to capture its planet threatening pollutants. Considering the immediate and long term costs of coal burning, coal is only cheap to corporations; it exacts a high price from people and the planet.

We cannot confront the climate crisis without confronting our use of coal.

There is NO such thing as “Clean Coal”

“Clean coal” ranks among the most desperate of myths spun by the coal industry in a frantic bid to survive.

One example of “clean coal” technology used in developing countries involves circulating fluidized bed combustion systems (CFBC), which produces four times more coal ash compared to pulverised coal plants. According to the US Environmental Protection Agency (EPA), the risk of getting cancer is 900 times higher

Coal financing by ECAs

Last November, the OECD Export Credit Group agreed to restrict export credit subsidies for coal plants. Even though the agreement did not completely eliminate financing for coal projects, they acknowledged that their practices have led to increased GhG emissions. Their reckless financing comes with a hefty price tag that the most vulnerable communities will have to bear.

- Between 2007 and 2013, ECA from OECD nations provided at least \$32 billion for projects abroad – over 60% of total public support for coal over the period.
- Not only has ECA financing for coal by OECD countries increased, these ECAs financed nearly one-quarter of all new coal development outside of China between 2005 and 2012.
- As the US Ex-Im Bank and France’s Coface begin limiting support, their Japanese counterparts have continued to finance coal-fired power plants in Indonesia, Myanmar and Vietnam. Japanese ECA investments for coal amounted to more than \$20 billion dollars between 2007 and 2014.

from coal ash exposure compared to cigarette smoking. The more state of the art “clean coal” technology involves “ultrasupercritical” and the “advanced ultrasupercritical” boilers and turbines. Using steam at much higher temperatures and pressure levels, this technology increases efficiency levels by at most 7%, still resulting in massive CO₂ emissions. Less dirty is not clean.

Industry leaders are also talking about “cleaning” coal energy further through Carbon, Capture and Storage (CCS) technology - an expensive, energy-hungry process that also poses new risks from the huge amounts of carbon that would have to be sequestered under the ground. The vested interests who support coal also

³ <http://www.reuters.com/article/2013/07/08/china-environment-coal-idUSL6N0FE1W620130708>

advocate for the dangerous option of 'geo-engineering' (or large scale intentional disruption of natural processes) so that they can keep profiting from coal, while wrecking further harm to natural systems.

"Clean coal solutions" are really just false solutions that will not avert the climate crisis and will only intensify the harm to local communities impacted by coal mining, transport and energy production.

Coal financing by multilateral development banks

Private commercial banks have long overtaken MDBs in coal financing. MDBs cited the impacts of coal on the climate as the major reason for reforming their standards and policies on financing. Sadly, MDBs have not totally deferred financing for coal projects. Despite their supposed finance policy shift, the MDBs have continued to support coal projects.

- The World Bank funded five coal projects; amounting to \$399.9 million. It has been under fire for its plans to support a lignite plant. The Kosovan government claims that the WB will support its proposed \$1.1 billion "clean coal" facility to replace its aging power plants.
- Among the MDBs, the ADB can be considered the dirtiest for having the biggest investment in coal in the period of 2011-2013. In 2013, it agreed to finance Pakistan's Jamshoro Power Generation Project; a 600 MW supercritical coal-fired unit in Sindh province.
- The African Development Bank's president Akinwumi Adesina was quoted in 2015 stating that, "The AfDB isn't against coal". Its latest financing is a Partial Risk Guarantee for the Lamu Coal Power Project of Kenya. In 2013, AfDB provided 49.49 million euros to construct a 125 MW coal plant in Senegal.
- The European Bank of Reconstruction and Development has been reported to be considering a 80 million euro sovereign guaranteed loan to Elektroprivreda Srbije, a state-owned electric company and its affiliate RB Kolbura to develop a lignite open pit mine in the Kolabura complex in Serbia.
- The Inter-American Development Bank website cites that the last coal project it financed was the Brazilian Pécem Thermoelectric Power Plant Project amounting to \$147 million in 2009.
- From 2007 to 2010, the European Investment Bank loaned 1.8 billion euros or 11 percent of its fossil fuel lending for coal power plants. These funds were used to construct a 750 MW coal-fired power plant in North-Rhine Westphalia and a 600 MW unit at the Sostanj lignite power plant (TES6) in Slovenia.

Coal is NOT about energy for all

The global consumption of energy is huge and rapidly rising and yet there are more than 1.1 billion people with no access to electricity, and many more with barely enough.

Where we have witnessed huge increases in coal energy generation and consumption, we have not seen matching efforts to enable energy access especially for poor households and communities; nor has there been substantial and transformative steps made towards reducing poverty and improving the quality of peoples' lives. Instead, we see the persistence of huge disparities in energy use by the wealthy few and the majority of people and communities. Dominant energy systems today continue to power economies and "development" strategies that favor elites and corporations and fail to deliver universal access.

The strong push for Coal Energy continues

There are 1,531 coal fired power plants being planned in 55 countries around the world today. If built, coal plants in the pre-construction development phase and the 724 currently under construction would emit 220, 241 million tonnes (Mt) of CO₂ over a 40-year lifetime, exceeding the 620 limit as of 2014 for a high (66%) probability of limiting warming to 1.5°C.⁴

The vast majority of projects involve private financing through bonds, syndicated loans and other financial instruments from a wide variety of financial institutions and institutional investors including commercial banks such as JP Morgan Chase, Citi and the Royal Bank of Scotland. However, public financial institutions such as The World Bank (WB), the Asian Development Bank (ADB), the Japan Bank for International Co-operation, German agency KfW, The European Bank for Reconstruction and Development, and the Export-Import Bank of China continue to either directly or indirectly support coal. International financial institutions, export credit agencies, development finance institutions and bilateral aid agencies use public funds to subsidize private corporations and provide technical assistance and other types of support to the coal industry. While the World Bank and the Asian Development Bank persist with their green-wash rhetoric on global warming and the need for "greening" economies – they continue funding the dirtiest of fossil fuels.

As developed countries reduce their domestic consumption of coal, the coal industry looks for safe havens elsewhere. The US, for instance, reports

⁴ endcoal.org/2016/09/slowing-the-coal-plant-pipeline-mid-2016-result-from-the-global-coal-plant-tracker/

declining energy-related CO2 emissions in the last few years and yet its coal exports to Asia, South America and Europe rose from almost 60,000 short tons in 2007 to over 125,000 short tons as of end 2012 or an increase of more than 112%. Coal and all its dangers are being vigorously pushed in developing countries as

cheap energy source by Transnational corporations, international financial institutions, big energy investors, and many governments of both developed and developing countries.

The push for Coal is a BETRAYAL of the commitment and obligation of governments under the United Nations to address climate change and shift to sustainable systems.

Our Demands

1. Ban all new coal projects.
2. End investment incentives and public subsidies to producers that drive the expansion of coal mining and coal energy generation.
3. A full stop to all public financing of coal projects, including from international financial institutions, export credit agencies, development finance institutions and bilateral aid agencies.
4. Mobilize public finance to make a just transition to democratic, renewable and clean energy systems for people and communities as fast as possible.
5. Stop excessive energy consumption by corporations and elites.

