NORTH AMERICA'S
BUILDING TRADES UNIONS

Value on Display. Every Day.

ENERGY AD-HOC COMMITTEE

For the purpose of promoting economic prosperity
and robust job creation,
North America's Building Trades Unions and its members
support a modern U.S. energy policy
that encompasses enhanced energy security and
North American production capacity.

Energy Ad-Hoc Committee

ENERGY POLICY OVERVIEW

North America's Building Trades Unions support a modern U.S. energy policy that embraces an "all of the above" power production strategy - one that does not pick winners and losers. The policy should also promote self-reliant North American oil and gas production capacity and utilization. This approach will result in economic prosperity, enhanced domestic energy security, and robust job creation. Our dependence on foreign supplies of oil and gas, along with the threat of global climate change, exemplifies the need for a comprehensive U.S. energy policy that benefits the domestic economy.

Our nation must promote cutting edge, domestically-developed, and domestically-sourced clean energy technologies. We should embrace the utilization of our natural resources through support of environmentally-friendly innovation. In turn, industry best practices, which are based on innovation and technology combined with a safe, highly trained and skilled workforce, represent an important step in meeting public concern that our nation's resources are being developed responsibly.

The Building Trades support streamlining the environmental review process. Construction owners need regulatory certainty and predictability in order to invest the vast amounts of capital that is necessary for North America to realize its energy future. Delays in the permitting process increase cost and stymie private investments. Further, we support projects in the permitting process where owners have committed to the highest community standards for the construction workforce, such as project labor agreements (PLAs) and workforce training initiatives.

The Building Trades support companies that are committed to:

- Complying with all applicable local, state, and federal occupational safety and health requirements to ensure the safety and health of its employees.
- Hiring first from the pool of local workers to maximize regional benefits.
- Investing in the local workers' skill development through apprenticeship - the most effective training model in the construction industry.
- Increasing diversity in the workforce by prohibiting discrimination and actively recruiting women and people of color.
- Requiring policies that ensure workers are free of alcohol and drugs.
- Developing a project health and safety plan and forming a safety committee comprised of an equal number of representatives of labor and management.
- Operating facilities and using raw materials and products in a manner that protects the environment, the safety and health of workers and the public.

- Promptly advising appropriate officials, employees, customers and the public of information on significant industry-related safety, health and environmental hazards and recommending protective measures.
- Delivering information, training and technical assistance to contractors, suppliers, customers, transporters and others in the safe use, transportation and disposal of our raw materials, products and waste materials.
- Promoting responsible laws, regulations and standards to safeguard the community, the workplace and the environment.

In the Building Trades, craft workers acquire skills through the world's most admired and successful workforce development infrastructure - a system entailing rigorous on-the-job and classroom training - which provides workers with the skills necessary to excel in construction careers. There are a number of key benefits arising from our training model, both for the employer and the worker.

For workers:

- No discrimination in any phase of selection, employment or training.
- Opportunity to "earn while you learn."
- Nationally recognized credentials upon completion.
- Documented skills that are transferable and portable.
- Higher earnings potential and greater financial security.
- More opportunities for future training and advancement.

For employers:

- Reduced cost due to worker productivity and safety.
- Pipeline for skilled workers trained to industry specifications and needs.
- Reduced turnover.
- Access to broadly trained, highly skilled workforce across crafts.

North America's Building Trades Unions stand ready to assist in the construction and maintenance of our nation's energy infrastructure. We are confident our members possess the skill and ingenuity to meet the demands of a growing economy, while being responsible environmental stewards.

We look forward to working with policy makers to craft solutions that embrace all energy options, including oil and natural gas, nuclear, coal and carbon capture and sequestration, geothermal, wind, solar and hydro. At the same time, we will promote responsible legislation and regulations that provide a balance of economic and environmental concerns.

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KEYSTONE XL

On September 19, 2008, TransCanada submitted its permit application to the U.S. State Department to build the Keystone XL pipeline. Despite years of environmental and economic study, intense review by ten federal agencies, legal proceedings at the federal and state levels, and numerous state and local agency assessments, the project has not yet been approved. Thousands of jobs would be created without a single dollar of government assistance and they equate to millions of construction work hours. The total earnings supported by the Keystone XL project would be approximately $2.053 billion[1]; its overall economic impact would be felt nationwide. Unfortunately, continued government inaction leaves over 40,000 jobs in limbo and stifles any associated economic benefits.

North America's Building Trades Unions believe the time for study and deliberation is over. We support the Keystone XL pipeline which will be constructed under a project labor agreement and we call for its immediate permit approval. Further, precedent exists for congressional approval of pipelines of national significance. In the 1970s the Trans Alaska Pipeline System (TAPS) required congressional action. North America's Building Trades Unions will support legislative efforts to approve the Keystone XL project. We also support the expansion and continued maintenance of our existing pipelines utilizing the skilled craft workers of North America's Building Trades Unions.

HYDRAULIC FRACTURING

New discoveries of vast North American reserves of natural gas, combined with state of the art horizontal drilling technology and hydraulic fracturing, offer immediate positive impacts to economic prosperity and energy security. And while all of our affiliated crafts may not benefit directly from upstream and midstream natural gas development, many of the Building Trades' affiliates are working on hydraulic fracking activities and its ancillary construction.

The industry is spawning a rebirth of "small town America" throughout the country; areas like Western Pennsylvania, Ohio, West Virginia and the Mountain West are bustling with economic activity and job opportunities. By 2025, research firm IHS estimates the unconventional oil and natural gas value chain and energy-related chemicals activity will support approximately 3.9 million jobs.

Accordingly, the economic growth in these areas has created millions of work hours associated with well site, access road and pipeline construction, including gathering lines, transmission lines, and associated pumping stations and other facilities needed to bring natural gas to market. The Interstate Natural Gas Association of America (INGAA) estimates that North America may

[1] Department of State, Final Supplemental Environmental Impact Statement, Appendix O – Socioeconomics, pp. 25

need more than 61,000 miles of additional natural gas pipelines through 2030. INGAA estimates investments in midstream natural gas pipelines could reach approximately $10 billion annually for the next twenty years.

This abundance of natural gas is also having a positive effect upon domestic manufacturing and petrochemical production. Since the 1970s, the Bureau of Labor Statistics estimates 7.5 million U.S. manufacturing jobs have been lost. While the reasoning for the decline involves complex economic and geopolitical issues, the increased cost of American energy over the last 40 years is certainly one factor. However, the influx of domestic gas has begun to lure major manufacturers back to the U.S. and spur new industrial development. Whether the gas is used to fire boilers in a manufacturing facility or boilers in a power plant, or as a feedstock in direct chemical and industrial production, the allure of cheaper domestic energy is a competitive advantage for our nation and its workers.

The abundance of domestic natural gas from fracking also provides the opportunity for America to become a net exporter. As of June 11, 2014, there are 42 separate liquefied natural gas (LNG) export facility applications pending with the Department of Energy. Even though all of these projects will not be approved, there are still those who feel LNG exports pose a threat to domestic manufacturing. However, others believe the U.S. possesses more than enough discovered and undiscovered natural gas reserves to meet the needs of both domestic manufacturers and exporters.

The Building Trades support LNG export projects that - in order to mitigate the potential upward pressure on domestic natural gas prices - possess dedicated pipelines, so that projects do not compete directly with other industrial and residential consumers of natural gas. When possible, these lines should connect to major natural gas plays. Further, owners or contractors should have committed to the highest standards for its construction workforce through the utilization of PLAs.

As we develop our natural resources, production must be done safely and in an environmentally responsible manner. This should include the strategic deployment of a highly-skilled workforce and should include the utilization of project labor agreements, which provide the best opportunities to train local workers through our joint apprenticeship and training committees.

In addition to the local employment benefits of hydraulic fracturing, we believe there needs to be adequate environmental safeguards to protect local environments and ecosystems. This should include the disclosure of chemicals used in the fracking process, as well as well-thought out standards related to well site construction and activities.

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CARBON CAPTURE AND SEQUESTRATION

Carbon capture and sequestration (CCS) is the only known way for CO2 emitting power plants to remove carbon from the flue stream. The process, while extremely effective at mitigating point source pollution, is expensive. There is no commercial CCS power plant yet in operation in the U.S.

CCS technology is a pro-environmental solution to America's existing and future fossil fuel power generation. By eliminating CO2 emissions through the use of CCS, we can address climate change and meet future power generation demand.

The Building Trades support legislation and government programs which promote research, development and deployment of CCS technology. Equally important, is the need for fair and expedient permitting of projects, proper insurance underwriting and domestic sourcing of technology and materials needed to make CCS a reality.

COAL ASH

The United States holds the world's largest estimated recoverable reserves of coal, and it remains the largest fuel source for generating electricity in America. In 2012, according the U.S. Energy Information Administration, coal was used for nearly 37% of the 4 trillion kilowatt hours of electricity generated in the U.S.

The combustion of coal produces "coal ash" - the generic term for the different types of solid materials left over after combustion. Coal ash is typically stored in wet or dry retention ponds at power plants where it is produced, and this material can be recycled or "beneficially reused" in construction materials. In many cases, products made with coal ash perform better than other comparable products. For example, coal ash makes concrete stronger and more durable. The American Road and Transportation Builders Association estimates the use of coal ash in concrete roads and bridges saves highway builders more than $5 billion per year. In February of 2014, the Environmental Protection Agency (EPA) released a study concluding the use of coal ash in concrete and synthetic gypsum in wallboard is safe and appropriate when beneficially reused.

However, in 2010, the EPA proposed to regulate coal ash under the Resource Conservation and Recovery Act. The rule was challenged in federal court and is now subject to a court order requiring final action by December 19, 2014. The EPA seeks to categorize coal ash into one of two options. The Subtitle C option would essentially define coal ash as a toxic waste, increasing disposal costs for power producers as well as the cost of construction products that rely on coal

ash as an ingredient. The Subtitle D option allows for the beneficial reuse of coal ash, while also ensuring retention pond integrity and waste management.

The Building Trades believe overly prescriptive regulation is not the best course of action. We support legislation in Congress addressing the need to ensure coal ash is stored and disposed of in an environmentally responsible manner, while also allowing for beneficial reuse. Such legislation would allow for states to move forward with their regulatory mechanisms while the federal government provides a backstop.

COOLING TOWERS - SEC. 316(B)

The EPA's Cooling Water Intake Structures Rule - Section 316(b) of the Clean Water Act - regulates existing once-through cooling water systems and has wide-sweeping implications for nearly all power plants and many manufacturing facilities. The rule designates technology-based performance standards to mitigate the adverse affects on aquatic ecosystems and fish from the withdrawal of cooling water.

The Building Trades is pleased the final rule, signed on May 16, 2014, did not require cooling towers at all facilities. From a compliance perspective, there are still many variables, such as cost-benefit analyses at individual facilities and federal enforcement, which will drive plant operators' decision making.

GREENHOUSE GAS (GHG) REGULATION - SEC 111(B) AND (D)

In the absence of federal legislation, much of the federal activity on climate change and GHG regulation is taking place under the existing authority of the Clean Air Act (CAA). The EPA is using its authority under section 111 of the CAA to issue standards, regulations, and/or guidelines, addressing carbon pollution from new and existing power plants.

- Section 111(b) of the CAA is the federal program to address new, modified and reconstructed sources by establishing emission standards. EPA has promulgated numerous section 111(b) standards, including those for nitrogen oxides, sulfur dioxide, and particulate matter at new and modified electric generating units (EGUs).
    - On September 20, 2013, the EPA proposed carbon pollution standards for EGUs built in the future.

- Section 111(d) of the CAA directs EPA to establish standards for existing EGUs only after emission standards for new sources have been promulgated. States then

design programs that fit into federal guidelines to get the needed reductions from existing sources.

- On June 2, 2014, the EPA proposed the "Clean Power Plan" to cut carbon pollution from existing EGUs.

The EPA's Clean Power Plan seeks to cut CO2 emissions from existing power plants by 30% by 2030 from an equivalent 2005 baseline. Unlike other CAA 111(b) regulations which account for pollutant percentage reductions on a unit-by-unit case, the Clean Power Plan is promulgated under CAA 111(d), requiring states to implement a plan by 2020 to accomplish the reductions.

The EPA believes the reductions can be accomplished by the following:

1. Reducing the carbon intensity of generation at individual affected EGUs through heat rate improvements.

2. Reducing emissions from the most carbon-intensive affected EGUs in the amount that results from substituting generation at those EGUs with generation from less carbon-intensive affected EGUs (including Natural Gas Combined Cycle units under construction).

3. Reducing emissions from affected EGUs in the amount that results from substituting generation at those EGUs with expanded low- or zero-carbon generation.

4. Reducing emissions from affected EGUs in the amount that results from the use of demand-side energy efficiency that reduces the amount of generation required.

The electric power sector is the most capital-intensive industry in the United States. Flexible, market-based solutions have been highly effective (and cost-effective) in transitioning to cleaner energy technologies. We look forward to continued engagement with EPA and other stakeholders on the development of the carbon pollution rules, particularly with respect to the effects the proposed rule will have on electrical grid reliability, the cost of electricity and real global carbon emissions going forward.

NUCLEAR

Nuclear power is a clean, reliable source of electricity for our nation. It is a key component to zero emissions base load power and should play a major role in meeting future power demands. Such growth will provide substantial economic benefits to workers, communities and the local tax base. Roughly 1,500 or more jobs are produced during construction and approximately 300-500 workers are needed to run and maintain an operational plant.

The Building Trades will continue to work with Congress and the Administration to resolve our nation's long-term nuclear waste storage issues. With no current policy under discussion to

replace the termination of the Yucca Mountain repository, the U.S. is left without any long term storage site for high level radioactive waste. Currently, waste is stored on-site at the nuclear power plant facilities throughout the country. We echo the urgency expressed by the Blue Ribbon Commission on America's Nuclear Future that such a facility must be developed.

The Building Trades also believe that there needs to be a functioning Nuclear Regulatory Commission (NRC), coupled with thoughtful legislation and regulations which support the expansion of the nuclear power sector. The NRC should not be an adversary to the industry, especially given the associated economic benefits and thousands of jobs that result from, and rely on, nuclear power generation.

RENEWABLES/ENERGY EFFICIENCY

The generation of electricity through the use of alternative energy technologies such as wind, solar, geothermal, fuel cells, grid-scale energy storage, as well as the implementation of energy efficient products and practices, provide the opportunity to lower the production of greenhouse gases, supplement base load power, and benefit our economy and workers.

Buildings across the country account for 40-50% of daily energy consumption. In the construction sector, skilled craft workers are today constructing new energy-efficient buildings while refitting older, less efficient structures.

Many Building Trades affiliates are investing in new training modules associated with alternative energy and energy efficiency. In order to prepare the next generation of skilled craft workers, many trades are training apprentices and journeyman so they can install and maintain these new energy efficient technologies.

CONCLUSION

North America's Building Trades Unions support the development of a national energy policy that balances our energy and power needs with national and global environmental concerns. We will work with all stakeholders to craft a sensible national energy policy: one that emphasizes jobs, domestic energy production, and the implementation of clean technologies and alternative energy sources.

We fully understand that all segments of our society have a responsibility to maintain careful stewardship of our nation's natural resources; indeed, we are committed to this task. For over 100 years, the Building Trades and our affiliated signatory contractors, through cooperatively developed workforce training programs, have evolved to meet the social, environmental and technical challenges facing our nation.