Testimony of KC Golden
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before the

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Mr. Chairman, Ranking Member Rush, members of the committee, thank you for this opportunity to testify on the impacts of coal export on climate disruption and the Pacific Northwest. With the prospect of coal export, our region finds itself unwittingly positioned at an important global crossroads with respect to climate and energy. Our decisions will bear heavily on the energy future, advancing or undermining our ability to deploy effective climate solutions in a timely and responsible way.

Coal export decisions will also have far-reaching impacts on the health and vitality of our local communities and the strength of our regional economy, impacts that will be addressed in other testimony today. My testimony will touch on some of these impacts, as they are related to the larger questions about our energy future and climate impacts. I will focus on five points:

1. **Coal export would represent an abrupt reversal for states and communities that have staked their economic strategies on clean energy, healthy communities, and economic innovation.**

2. **Exporting publically subsidized coal from the Powder River Basin would significantly increase net emissions of climate pollution, not just displace other supplies.**

3. **The most destructive impact would be economic "lock-in": commitments of enormous amounts of capital to long-lived energy infrastructure that make dangerous climate disruption unavoidable.**

4. **Coal export is a weak economic strategy for America and the Pacific Northwest.**

5. **Coal export presents a fateful choice: Will we pioneer the development of clean energy technologies and systems that deliver sustainable prosperity, and reap the economic rewards of that leadership? Or will we lag behind, facilitating and fueling the development of energy systems that lock us in to a future of dangerous climate disruption and economic stagnation?**

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1. **Coal export would represent an abrupt reversal for Northwest states and communities that have staked their economic strategies on clean energy, sustainable development, and economic innovation.**

Renewable energy isn't "alternative" energy in Washington and Oregon. It's the backbone of our existing power system, and the reason we enjoy some of the lowest energy costs and cleanest air in the nation. We have honed our "renewable edge" with decades of investment in energy efficiency, squeezing more work out of our hydroelectric supplies while improving the comfort of our buildings and the competitiveness of our industries.

In recent years, we have begun to add substantial amounts of new renewable resources to our energy portfolios. And we have adopted climate plans[1] that commit our jurisdictions to responsible limits on climate pollution and accelerated deployment of clean energy systems. Climate disruption and ocean acidification represent clear and present dangers[2] to Northwest communities and economies – threatening our water, power, and food production systems, undermining the health and productivity of our forests, eroding our shorelines, and increasing the loss of lives and property from extreme weather. We cannot solve this problem alone, but we are committed to do our part, and we believe that doing so helps us build a healthier future and a stronger, more durable economy.

These historic and new clean energy commitments are vital to the region's economy. They support our existing manufacturing and industrial base, including global leaders in aviation, wood products, and materials. They are accelerating the development of dynamic new, job-creating industries including renewable energy, energy efficiency, advanced transportation, software, and smart grid technology. And our clean energy edge is an important part of the overall quality of life that attracts investment, innovation, and an excellent workforce to our region. Clean energy leadership is part and parcel of our regional identity and our economic profile.

As a result of this leadership, we are phasing coal out of our regional energy supplies. Seattle City Light sold off its share in a coal plant in 2000, and completely eliminated net carbon emissions for the City's

[1] Washington State Executive Order 09-05, "Washington's Leadership on Climate Change," at http://www.ecy.wa.gov/climatechange/2009EO.htm ; Oregon Global Warming Commission Interim Roadmap to 2020 at http://www.keeporegoncool.org/sites/default/files/Integrated_OGWC_Interim_Roadmap_to_2020_Oct29_11-19Additions.pdf

[2] See, e.g., Washington State impact assessment at: http://www.ecy.wa.gov/climatechange/

power supply in 2005. In 2011, we reached a consensus agreement[3] to phase out that same coal plant – the only coal-burning commercial power plant in Washington, and the source of roughly 10% of the state's total emissions of climate pollution. That agreement enjoyed unanimous support from the plant's owner, the local community, conservation groups, and the workers at the plant. Our successful experience with clean energy created a widely-shared sense of confidence in our ability to power our future with cleaner energy sources.

We take pride in our clean energy achievements and our commitment to climate solutions. Our communities are healthier, our economy is stronger, and our future is more secure as a result of these investments. But we know full well that no city or state can successfully address the climate challenge unilaterally. And so our climate strategies are designed to pioneer and prove out the technologies, energy systems, and transportation strategies that can power a healthy future, in our region or anywhere else. Rising to the climate challenge means not just reducing our own carbon footprint, but opening up energy pathways to economic security – pathways that work for the long haul, not just for us, but for the billions of people worldwide who yearn for economic opportunity. We call this sustainable prosperity, and we believe it's our best future.

As Edmonds, WA City Council member Strom Peterson wrote, "Our futures are brighter and our communities are stronger because we are building vibrant local economies – great places where people want to live, work, shop, and play. Coal export is the direct opposite of that vision."[4] In a region that places a high economic and cultural value on innovation and quality of life, coal export would commit some of our most valuable resources to a low-value, high-impact, economically unsound use. In a region that aims to pioneer and export sustainable prosperity, coal export would position us as promoters and

[3] "Transalta Agreement Shows the Power of Compromise," *Olympian,* March 11, 2011 at http://www.theolympian.com/2011/03/11/1574719/transalta-agreement-shows-the.html
[4] "Visualize Edmonds, without coal crains please," Edmonds Beacon, March 22, 2012.

suppliers of unsustainable fossil fuel development to the world. In a region working for climate solutions – a region that depends on climate stability for its water, food, and power supplies – coal export would make us merchants of climate disruption.

It will be a sad day for America and a tragic reversal for the Northwest if, a few short years from now, our children can stand on our shores, watching ships sail in from Asia with solar panels and wind turbine blades and flat screen TVs, passing ships sailing from America, loaded with coal. This is not our best future.

2. Exporting cheap, subsidized coal from the Powder River Basin would significantly increase net emissions of climate pollution, not just displace other supplies.

Proposed coal export terminals in the Northwest could ship well in excess of 100 million tons of coal a year through our communities. In addition to the massive local impacts of these shipments, the carbon emissions[5] from burning the coal would overwhelm the region's many positive commitments to climate solutions and emission reduction.

Of course, coal export from the Northwest would not be the only driver of coal combustion in Asia, and Asian nations have other sources of coal supply if we choose not to export U.S. coal. Citing this fact, coal export proponents argue that these proposals would not affect the amount of coal that is ultimately burned or the net carbon emissions from that coal[6]. (We note that these same proponents argue that emissions of climate pollution should not be included within the scope of the environmental review for

[5] See "Coal export and carbon consequences II," Sightline Institute, at http://daily.sightline.org/2012/05/23/coal-exports-and-carbon-consequences-ii/

[6] Vic Svec, VP of investor relations for Peabody Coal, said: "It's safe to say that not one more pound of coal will be used in Asia because of this terminal." *National Geographic Daily News*, October 20 2011 at: http://news.nationalgeographic.com/news/energy/2011/10/111020-coal-port-pacific-northwest/

these projects – a somewhat curious position if they genuinely believe that there will be no increase in emissions.)

This argument runs contrary to the basic principles of economics. If indeed Powder River Basin coal can be delivered to Asia as a competitive source of supply, then, by definition, it would be cheaper than the next available source of supply to the relevant markets (otherwise, they wouldn't buy it). And if it is cheaper, the basic dynamics of supply and demand suggest that more of it will be consumed. (And if it is not, then these projects may go belly up, as previous coal export projects did[7], leaving port communities with substantial stranded investments.)

In "The Greenhouse Gas Impact of Exporting Coal from the West Coast: An Economic Analysis,"[8] Dr. Thomas Power outlines this argument, noting that the market for coal in China is sensitive to price, and that the introduction of cheap new supplies will increase emissions and reduce investment in energy efficiency and cleaner energy supplies.

Dr. Power followed up this conceptual analysis with more detailed economic modeling in "The Impact of Powder River Basin Coal Exports on Global Greenhouse Gas Emissions."[9] In this analysis he found that Powder River Basin coal could substantially undercut the existing import market in South Coastal China, which would apply pressure on other suppliers to reduce their prices, and significantly increase net emissions in the whole market. These emission increases would not be offset, he finds, by emission decreases in the U.S. resulting from export.

[7] See "Gambling on coal and losing," Sightline Institute, at: http://daily.sightline.org/2011/09/12/gambling-on-coal-and-losing/

[8] http://www.sightline.org/wp-content/uploads/downloads/2012/02/Coal-Power-White-Paper.pdf

[9] http://www.powereconconsulting.com/WP/assets/GHG-Impact-PRB-Coal-Export-Power-Consulting-May-2013_Final.pdf

If the proponents of coal export dispute this analysis, we hope and expect that they will not object to a comprehensive and fair examination of the issue so that decision-makers have the opportunity to make well-informed decisions and citizens can evaluate those decisions in the full light of all the relevant facts.

It should also be noted that the overwhelming weight of the scientific evidence, summarized in the EPA's endangerment finding,[10] confirms that unchecked climate disruption will have grave human consequences. Indeed, some of these consequences are already upon us. In light of these consequences, the argument that "someone else will supply the coal if we don't" seems fatalistic and irresponsible. No one can take complete responsibility for addressing climate change, but if we are to address it collectively, we do need to assume responsibility for the actions we take, regardless of what anyone else does.

3. The most disruptive impact globally would be economic "lock-in": near-term commitments of capital to long-lived energy infrastructure that make dangerous climate disruption unavoidable.

While the increases in climate pollution from coal export due to the near-term market effects of introducing a cheap new source of supply would be significant, there is a more important and destructive impact: the effect of coal export on long-term energy infrastructure investment.
In its 2011 World Energy Outlook[11], the International Energy Agency warned that the global pattern of energy infrastructure investment must shift, decisively and immediately, away from fossil fuels or we will "lose forever" the chance to avert catastrophic climate disruption. This does not mean that we need to cease fossil fuel consumption immediately. It does, however, mean that we must *stop making the*

[10] http://www.epa.gov/climatechange/endangerment/
[11] http://www.iea.org/newsroomandevents/pressreleases/2011/november/name,20318,en.html

situation worse with large and irreversible *new* investments that "lock-in" emission trajectories which guarantee dangerous climate disruption. And the most critical of these investments are the huge new capital expenditures for energy infrastructure in the fast-growing Asian economies – the intended market for coal export. Once these long-term investments are made, their emissions are locked in not for months or years, but for decades. And the impacts of those emissions will persist for centuries.

Fuel price forecasting is notoriously risky business, but if you are making a long-term capital bet on a coal plant, at a minimum you want to know that there's a lot of fuel available, and that there will be enough different suppliers to give buyers some competitive leverage. The all-important question that export of Powder River Basin coal answers is *not* "Where will China and India get coal tomorrow?" The question is "Will China and India have unlimited to access the world's coal supplies, giving them enough confidence in future prices to justify construction of a whole generation of new coal plants?" And if they make those investment decisions, there is no turning back from the climate consequences.

If you believe that carbon capture and sequestration technology will be economically viable in the future, then you would be especially concerned about the effect of these near-term investments. The coal plants that hang in the balance – the ones that would be constructed in the next decade in anticipation of cheap supplies of American coal – have neither the technological nor the geological requirements for sequestering carbon. And if you believe that solar and other clean energy innovations or new nuclear designs will make fossil fuels uncompetitive, then you should be equally determined to avoid these near-term capital investments in coal infrastructure. Once they are made, it doesn't matter what clean energy breakthroughs we achieve – we will already be economically committed to an emissions path that guarantees a future of unrelenting climate disruption. And the capital that might have been deployed to create clean energy pathways and markets for American

innovation and technology leadership would have been squandered. The American economy would sacrifice a dynamic driver of innovation and job growth, and receive only modest fuel loading fees in exchange.

Nationally and globally, we simply do not have enough time or enough money to spend the next decade digging the hole deeper in ways that make it impossible to fill.

4. Coal export is a weak economic strategy for America and the Pacific Northwest

We strongly support the aspirations of all Washington communities to enjoy economic opportunity and good jobs. We respectfully submit that on balance, coal export would undermine those aspirations, while imposing unacceptable costs on existing businesses, local economies, and communities. This is not a jobs vs. environment situation. It's a coal export vs. jobs *and* the environment situation.

All economic development decisions are strategic resource allocation decisions. Among the resources that would need to be allocated to coal export are:

- Freight capacity, including scarce capacity on existing rail lines and the freight mobility that would be adversely affected by the many at-grade rail crossings between Montana and the west coast.
- Public investment for rail upgrades, grade separations, bridge reinforcement, erosion control, etc.
- "Airshed" capacity – the finite amount of air pollution that is allowed in some areas in order to protect public health.

- Other public subsidies including below-market leases for federal coal and the health and external public costs associated with coal extraction, transportation, and combustion.
- Brand and reputation – the quality of life attributes that attract investment and skilled workforces.

So the question for coal export is not whether it will produce jobs. It's whether it will produce *more* jobs and other economic benefits than other, competing uses of these finite resources. It is difficult to imagine an economic development strategy that would consume more of these resources while producing fewer jobs than coal export.

University of California Energy Professor Daniel Kammen suggests that coal export may produce significant profits, but few jobs for American workers, particularly insofar as it "will help Asian firms continue undercutting U.S. manufacturers, causing further job losses here at home." Kammen says "the majority of terminal profits would leave Washington and flow to Wall Street, not Main Street. The pittance paid locally in taxes — less than 34 cents a ton, according to official estimates — will be negligible compared to the public health and environmental impacts Washington citizens and ecosystems will be forced to bear."[12]

What is the net jobs impact in Washington of devoting our ability to move freight – one of the scarcest and most valuable economic resources for a trade-oriented economy like ours – to hauling fuel from Montana for use in Asia? How will increased congestion at rail crossings affect trucks, emergency vehicles, and citizens, and how will that affect our economic prospects? How will the impacts to quality of life across the state affect the health and well-being of our communities, and our ability to attract

[12] "Coal's no way to make the job market hop" *Crosscut,* January 14, 2013 at http://crosscut.com/2013/01/14/coal-ports/112384/coal-ports-jobs-economy/

investment and a skilled workforce for Washington's economy? What is it worth to our economy to be consistently ranked among the best places to live, and how will coal shipments affect that ranking? What is the impact on the fishing industry and tourism jobs from ocean acidification and dramatic increases in marine industrial traffic? …on hydropower production and irrigated agriculture from snowpack loss? …on the wood products industry from declining forest health? All of these questions need to be answered in order to assess the net economic impact of coal export.

As Pete Knutson, owner of Loki Fish Company said in his testimony at a coal export hearing: "Anyone who claims that this massive coal project is about jobs had better learn to subtract. We're weighing jobs based on the one-time exploitation of a fossil fuel versus livelihoods based on a sustainable resource."

Sustainability is a core value and a prosperity driver for communities like Bellingham[13], where Peabody Coal aims to build a major coal terminal. As former Bellingham Mayor Dan Pike said, "…Because of our reputation as a place that values sustainability, we've had a lot of businesses that choose to locate here. And things that damage that reputation damage our economic viability as a community… [T]here are few things that are as anti-sustainability as coal is."[14]

It's important to note that the prospective economic benefits of coal export would occur in a few communities where the coal is mined and the terminals are sited, while adverse impacts fall on communities all the way from Eastern Montana to the coast. But even in the terminal communities, the

[13] See, e.g., *Sustainable Connections*, Bellingham's largest business association, at http://sustainableconnections.org/

[14] "In Northwest town, a fight against global coal," NPR, October 26, 2011 http://www.npr.org/2011/10/26/141687537/in-northwest-town-a-local-fight-against-global-coal

benefits are ambiguous at best. An economic study on the impact in Bellingham[15] concluded that the net local effect on jobs may well be negative.

Longview, WA, another proposed target for a coal export terminal, has a very different economic profile than Bellingham. It's a hard-working community known for heavy industry and raw log exports – the kind of place, presumably, where coal export might fit in. But they've got something better in mind. The vision statement from the Cowlitz County Economic Development Plan, "*The Turning Point*", captures that difference: "Cowlitz County will transition from a natural resource dependent economy, embrace higher value projects, and raise its profile within a broader regional market." Coal export would bury that vision, committing the port community to bear impacts that would preclude the kinds of economic development envisioned in their plan. Reverend Kathleen Patton, rector at St. Stephen's Episcopal Church worries, "If Longview winds up becoming a coal-export facility, I really do wonder if that's the last 135 jobs this town will see. Who else would be attracted to come here? I don't see how we can justify saying a few jobs here makes it all worthwhile when we're jeopardizing the health of not just the planet but even the people who are supposedly going to benefit from this export facility."

Finally, the economic merits and costs of coal export must be evaluated in light of recent revelations that coal leases in the Powder River Basin are substantially undervalued – a significant public subsidy to coal companies serving foreign energy demand. A new report[16] from the Department of Interior's Inspector General highlights flaws in the calculation of Fair Market Value and failure to consider the increase in coal exports. Over 80% of the sales in the last 20 years have received only one bid. A report

[15] "The Impact of the Development of the Gateway Pacific Terminal on Whatcom County," Public Financial Management, March 2012, at: http://www.communitywisebellingham.org/economic-impacts-of-the-gpt-development/

[16] "Coal Management Program, US Department of Interior", June 2013 http://www.eenews.net/assets/2013/06/11/document_pm_01.pdf

last year from the Institute for Energy Economics and Financial Analysis[17] found that uncompetitive bidding and below-market pricing has cost federal taxpayers nearly $30 billion. Whatever merits this policy may have had in terms of lowering energy prices for American consumers do not apply in the case of coal export. We ask for a suspension of federal coal leasing[18] and a thorough examination of whether and under what circumstances it is in the public interest to lease for export.

5. **Coal export presents a fateful *choice*: Will we pioneer the development of clean energy technologies and systems that deliver sustainable prosperity, and reap the economic rewards of that leadership? Or will we lag behind, facilitating and fueling the development of energy systems that lock us in to a future of dangerous climate disruption and economic stagnation?**

The United States is a can-do nation, and the Pacific Northwest is proud home to some of our nation's foremost innovators and problem-solvers. And yet our national discussion of climate is afflicted with a peculiar fatalism. The discussion of coal export sometimes falls into this same pattern – a sense that things like climate disruption and global energy investment patterns are simply too big and outside our sphere of influence.

Coal export proponents find it advantageous to avoid examination of the larger implications of these proposals – particularly the impacts on climate disruption. These implications, they suggest, are simply beyond our control and beyond the appropriate jurisdiction of the relevant decision-makers. This is, of course, the problem with climate disruption in general; it's above everyone's pay grade.

[17] "The Great Giveaway: An analysis of The United States' Long-Term Trend of Selling Federally Owned Coal for Less Than Fair Market Value", Institute for Energy Economics and Financial Analysis, June 2012, available at http://www.ieefa.org/study-almost-30-billion-in-revenues-lost-to-taxpayers-by-giveaway-of-federally-owned-coal-in-powder-river-basin/

[18] Letter to Interior Secretary Jewell at http://climatesolutions.org/files/letter-to-secretary-jewell

And so I include this final point in order to urge that we approach these decisions in the American tradition of defining and driving our own destiny. To be sure, larger forces are at work, and we do not have unilateral control over all the relevant variables. But a variety of public decisions must be made in order to facilitate coal export – leasing public lands, issuing permits, providing public subsidies to mitigate impacts, bearing the costs of the climate disruption that coal export will help cause. We are decision-makers at a fateful crossroads, not innocent bystanders.

Because of the energy investment imperatives described above and in IEA's World Energy Outlook, it is not possible to travel both paths – sustainable prosperity and expanded coal infrastructure development. They are flatly inconsistent. And coal export presents us with a stark choice between them. Obscuring this choice is not a responsible course of action. We should make it, with our eyes open.

Above, I have outlined some of the arguments for rejecting coal export and reaffirming our commitment to sustainable prosperity. We are confident that any full and fair analysis of the costs and benefits will lead to this conclusion. And so, without further documenting the arguments against coal export here, I will conclude by simply reiterating our request to the federal agencies and decision-makers involved: please conduct a transparent, rigorous, comprehensive, cumulative analysis of the costs and benefits of these coal export proposals. Let's carefully examine the economic tradeoffs, the impacts on Northwest communities and America's future, and the climate impacts. Let's look at whether federal coal leases for export are in the public interest before we issue any more of them. Let's not be afraid to ask the big picture questions, like how this would affect America's global economic position and our ability to rise to

the climate challenge before the problem becomes intractable. Let's look before we leap, and make these decisions in the full light of day. We're confident that the facts will speak for themselves.

Thank you again for this opportunity to testify. I look forward to any questions you may have.