Earthjustice

Please see attached Comments on Chapter 173-445 WAC, Greenhouse Gas Assessment for Projects (GAP) Rule submitted by Earthjustice, Friends of the San Juans, Sierra Club, Stand.earth, Washington Environmental Council/Washington Conservation Voters, Columbia Riverkeeper, 350 Seattle, The Lands Council, Washington Physicians for Social Responsibility, and Friends of the Columbia Gorge

EARTHJUSTICE

October 14, 2020

Via Public Comment Portal, ecology.wa.gov
Fran Sant
Rulemaking Lead, GAP Rule
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

RE: Comments on Chapter 173-445 WAC, Greenhouse Gas Assessment for Projects (GAP) Rule.

Dear Ms. Sant:

Thank you for the opportunity to participate in the development of Ecology's Greenhouse Gas Assessment for Projects (GAP) Rulemaking. This rule comes at a critical time, as the harm from climate change becomes increasingly evident across our state. Larger and more frequent wildfires destroy homes and businesses, and foul the air with smoke. Increased rain and decreased snowpack change stream flows year round, leaving less water to meet the needs of our fish and farmers in the summer and increased flood risk in the winter. Sea level rise threatens the very existence of communities from the Washington coast to low-lying areas of Puget Sound. These harms will fall hardest on the people who already bear a disproportionate share of our environmental burdens. There is broad scientific consensus that we must dramatically reduce our greenhouse gas emissions in the immediate future to prevent these harms from becoming far worse.

The GAP Rule will govern how large industrial and fossil fuel projects assess and mitigate their greenhouse gas emissions under the State Environmental Policy Act (SEPA). SEPA has long required a comprehensive environmental analysis of all major actions that have a probable significant, adverse environmental impact, RCW 43.21C.031, and projects with a significant greenhouse gas footprint plainly fall under this requirement. Ecology is tasked with issuing rules that implement SEPA, RCW 43.21C.110, and such rules must always be faithful to the statute. At a time when Washington and the world must dramatically reduce emissions as quickly as possible, any proposal to construct a massive new source of greenhouse gas emissions must receive the fullest scrutiny of impacts and be subject to the most complete mitigation requirements. Anything less would be unlawfully inconsistent with SEPA's mandate and incompatible with preserving a planet that resembles the one we enjoy today. These core concerns drive our specific recommendations on the GAP Rule below.

I. PROJECTS MUST BE EVALUATED BASED ON GROSS EMISSIONS

Ecology has asked for feedback on whether environmental assessments under the GAP Rule should focus on the "gross" emissions or the "net" emissions of a project. We strongly

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recommend exclusively considering "gross" emissions, or the actual emissions from a project. "Net" emissions calculations are fundamentally flawed and misleading because they discount a project's actual emissions based on the unverifiable assumption that the project would reduce market consumption of other products elsewhere. Allowing speculative net emission theories to excuse a project's massive new gross emissions would defeat the purpose of the GAP Rule and undercut efforts to reduce our greenhouse gas emissions.

Large fossil fuel and industrial projects have an enormous carbon footprint. For a new project, "gross" emissions — the direct and indirect emissions attributable to the project — can be calculated with a high degree of certainty. If decisionmakers choose to allow a large new fossil fuel or industrial project to proceed, it is certain that the project will add these "gross" emissions to our atmosphere for decades to come.

"Net" emissions, in contrast, are speculative at best. Net emissions calculations typically are based on theories that a given product will displace another in the global market. Global markets are complex and constantly evolving. How a product will affect a global market for decades to come – including whether a given product will replace a dirtier product or a cleaner one, or whether it will simply be additive – is impossible to predict with a sufficient degree of certainty to form the basis for decisions today.

The GAP Rule must require credible assessments of greenhouse gas emissions, not wild guesses. New emissions from massive new projects are quantifiable and real. Projections of alternative global market scenarios, stretching decades into the future, are speculative at best. Relying on speculative projections to justify massive increases in greenhouse gas emissions masks true impacts and does not provide accurate information upon which to make regulatory decisions. If our guesses about how the global market will function for decades into the future turn out to be wrong – as they usually are, even on a far shorter time horizon than decades – we will have locked ourselves into emission levels that guarantee unsustainable warming. We cannot balance real increases in greenhouse gas emissions today against a hope and a prayer that emissions might someday decrease somewhere else.

Several recent projects have relied on "net" emission theories to attempt to justify their massive gross emissions. The problems with these recent analyses highlight why net emission theories are inherently flawed and must not be included in the GAP Rule.

A. Kalama Methanol – An Example

The proposed Kalama Methanol Refinery provides a key example of how use of speculative displacement theories undercuts valid greenhouse gas analyses in SEPA review. The Kalama Methanol Refinery is a major source of carbon pollution that would lock Washington into decades of fossil fuel use at the same time the state is vigorously moving in the direction of clean energy. It would dramatically increase our greenhouse gas emissions just as Washington has updated its emission targets to reflect the scientific consensus that deep reductions are needed in the next ten years. It is also a project designed to produce more plastic, at a time when plastic garbage is choking our oceans and shorelines. Yet each time (so far) that project

proponents have been forced to review and re-review estimated greenhouse gas emissions, not only has the estimated amount of greenhouse gas pollution increased, but the speculative displacement theory has changed, directly illustrating the unreliability of these methods.

The first EIS review, which was invalidly limited to direct emissions only, found that the refinery would emit over **1 million metric tonnes** of greenhouse gases annually. That review was vacated by the Shorelines Hearings Board and Cowlitz County Superior Court. The first supplemental EIS (SEIS) also contained serious errors that led to undercounting greenhouse gas emissions, but even with those errors, estimated annual greenhouse gas emissions were much higher than the previous review—between **2.37 and 3.21 million metric tonnes per year.**

In order to downplay this enormous climate impact and find that greenhouse gas emissions were not significant, the SEIS advanced a novel "displacement" theory, reasoning that the massive fossil fuel export proposal would allegedly *benefit* the global climate by replacing coal-based methanol production in China. This displacement theory rested on unreliable assumptions and highly speculative predictions about the future of the methanol-to-olefin industry. Specifically, the displacement analysis rested on the unsupported assertion that if denied access to Kalama-produced methanol, China would simply increase its domestic coal-to-methanol production indefinitely to meet growing demand for methanol and olefins. The SEIS came to that conclusion even while acknowledging that China recognized the problematic nature of its coal-to-methanol industry and was actively taking steps to reduce coal-to-methanol production and its greenhouse gas footprint. The assumption that Chinese coal-to-methanol production would automatically rise to meet methanol and olefin demand was based on an irrational application of free-market principles to a planned economy for decades to come.

After extensive criticism of the first supplemental EIS and its displacement theory, Ecology decided it needed to undertake a second supplemental EIS (SSEIS), the draft of which was issued for public comment last month. This draft SSEIS again found greater greenhouse gas emissions than the prior two reviews, estimating greenhouse gas emissions caused by the Kalama Methanol Refinery would be between **4.17 and 5.41 million metric tonnes a year.** Again, the draft SSEIS attempted to conduct a displacement analysis, but this time it was a *different* displacement analysis. The draft SSEIS critiqued the prior displacement analysis as being static, instead finding that the methanol market was growing rapidly, making any static analysis inappropriate. In general, while the SEIS focused on the economics of the *coal-to-olefin market* for comparisons, the draft SSEIS focused on the *global methanol market*; in short, the draft SSEIS was based on entirely different reasoning than was used in the First SEIS. The displacement theory used in the SSEIS was again speculative; indeed, the fact that two different environmental reviews used two different types of displacement analyses proves by itself that this exercise is irrational, and highlights how speculative displacement analysis is. Comments on the draft SSEIS pointed out various additional fatal flaws in the new displacement analysis, including again not taking into account China's lack of a free market, China's recent commitment to reducing greenhouse gas emissions[1] and ability to unilaterally and rapidly shift

[1] https://www.openaccessgovernment.org/chinas-pledge-zero-carbon/95242/

their planned economy to meet these commitments, China's expressed preference for expanding domestic production where feasible, the internal contradictions in this version of displacement theory, and the failure of the displacement theory to account for the changing baseline of reduced greenhouse gas emissions globally and in Washington.

It is undisputed that the Kalama methanol project would add millions of tons of new greenhouse gas emissions to our atmosphere every year. It is purely speculative to claim that this project has negative "net" emissions because it would prevent even dirtier sources from being built. Not only is this gambling with our climate future, it is a foolish bet: the losses are clear and certain, and the gains are guesswork at best.

B. Tacoma LNG – An Example

The proposed Tacoma Liquefied Natural Gas (LNG) project provides another example of why displacement theories are highly speculative and not an appropriate part of greenhouse gas analyses in SEPA review. According to the project description, the Tacoma LNG project proposes to process fracked gas from British Columbia, and store it in an 8 million gallon tank as liquefied natural gas. The vast majority of LNG stored at the facility would be sold to marine vessels for fuel. Under an expanded production scenario, gross emissions from the Tacoma LNG project would be 1.36 million tons of GHGs per year—a level of emissions equivalent to 1.4% of the state's total GHG emissions. This level of emissions for a single new project is exceptionally high, and as Governor Inslee recognized would accelerate the threat of climate change.[2]

Despite the fact that the project would substantially increase the state's greenhouse gas emissions, the Puget Sound Clean Air Agency (PSCAA) found the "net" emissions from the project are less than zero. PSCAA reached this conclusion by relying on a displacement analysis that compared the no action alternative with the proposed project. In PSCAA's no action alternative, the agency assumed that LNG sold to marine vessels would displace consumption of marine gasoil, heavy fuel oil, and marine diesel—dirty petroleum-based fuels currently used by marine vessels. PSCAA assumed that the Tacoma LNG Project would displace consumption of these crude oil products for the next forty years, which is the expected lifetime of the project. Further, it assumed that fuel displacement would occur at a ratio of 1:1; so for every gallon of LNG sold, it would replace a gallon of marine diesel.

Relying on this analysis, PSCAA determined that the "net" emissions from the project would be less than zero because the Tacoma LNG project would reduce emissions slightly below business as usual. This "net" emissions analysis relies on numerous untenable assumptions. Assuming that every gallon of LNG produced in the facility will immediately displace a gallon of conventional marine fuel is not supported by any data in the SEIS, and does not make any sense. Under an expanded production scenario, the SEIS assumed that almost 75% of the stored LNG would be sold to unknown marine users. The SEIS offers no basis on which to assume that

[2] Hal Bernton, Inslee Pulls Support from Two Western Washington Natural Gas Projects, Seattle Times (May 19, 2019).

existing users of conventional marine fuels will convert to LNG just because it is available. To the contrary, it is just as reasonable to assume that the project would provide fuel for additive shipping, i.e., new market entrants, or as yet unknown non-marine users.

Moreover, the assumption of 100% displacement becomes even more strained as time passes. Consideration of "lifetime" impacts of projects is expressly required by SEPA, WAC 197-11-60(4)(c), and hence it is necessary and appropriate to seek to forecast GHG emissions over the full 40-year lifespan of the project—i.e., to 2060 or beyond. However, the SEIS is built on the simplistic assumption that, in the absence of this project, marine shipping technology and practices will remain fundamentally unchanged from today through the lifetime of the project.

The assumption that the project will still be displacing conventional marine fossil fuels 40 years from now is not just unsupported, it is unfathomable. The International Maritime Organization has adopted emission reduction targets for the marine industry, and the industry is already moving away from conventional fuels and transitioning to low-carbon alternatives. This transformation undermines the assumption that the project will be displacing fossil fuels 40 years from now. To the contrary, "locking in" fossil-based emissions from the project could undermine the transition to low carbon fuels. The net emission analysis in the SEIS relies on the unsupportable assumption that over the next several decades the marine transportation industry will fail to make any progress on the industry's carbon neutrality targets and will simply continue business as usual. Against the baseline of the reductions the industry must achieve, the substantial gross emissions from the Tacoma LNG project would significantly contribute to catastrophic climate change.

It is undisputed that the Tacoma LNG project would add more than a million tons of new greenhouse gas emissions to our atmosphere every year. It is purely speculative to claim that this project has negative "net" emissions because it would displace marginally dirtier sources. Here too, attempts to calculate "net" emissions are a thinly-veiled effort to justify massive new sources of emissions that threaten our climate future.

* * *

As these examples highlight, displacement theories that attempt to predict global markets decades into the future are highly speculative and deeply flawed. Incorporating displacement analysis into the assessment of a project's emissions masks the project's certain and verifiable greenhouse gas emissions, obscuring a project's true impact. Speculative global displacement theories have no place in the assessment of a project's greenhouse gas emissions.

These unsupportable net emission theories parallel the theories climate polluters have advanced for years. In a number of instances, courts have squarely rejected these theories. For example, proponents of a massive coal mine expansion insisted that their project would not lead to any increase in net emissions because if the coal from their mine was not burned, other coal would be burned instead. *Montana Envtl. Info. Ctr. v. U.S. Office of Surface Mining*, 274 F.Supp.3d 1074, 1098 (D. Mont. 2017) (agency acted arbitrarily when it quantified GHG emissions from coal mine expansion, but found "no effect" on global climate "because other coal

would be burned in its stead[.]"). "Net" emission theories are yet another attempt to justify new emissions without actually ensuring the reductions we need.

We cannot stake our climate future on a speculative assessment method that obscures the actual harm caused by a project. Environmental assessments under the GAP Rule must be based on the "gross" emissions that we know a new project will cause, not misleading and speculative "net" emission theories.

II. THE GAP RULE SHOULD REQUIRE A CLIMATE TEST BASED ON THE BEST AVAILABLE SCIENCE TO ASSESS A PROJECT'S SIGNIFICANCE

The GAP Rule should require that each environmental assessment of a proposed project include a climate test analysis. This climate test must analyze whether the project's lifecycle emissions are consistent with a deeply decarbonized economy over the course of the project's lifespan. This approach would provide decisionmakers with a more accurate evaluation of the impacts of the project and contextualize that information within other laws, policies, and science on climate pollution. Evaluating a project's emissions against the baseline of emissions today is not enough. Project proponents must analyze their emissions against the baseline of the major reductions we need in decades to come.

This climate test analysis must require the use of the best available science in comparing project emissions to necessary reductions. Depending on the project, the best available science may include sources such as emission reductions required by Washington law or international agreements; industry-specific reduction goals; or scientific studies. Because each project is different, the emission reduction goals that are most relevant will be different as well. The best available science requirement means that each project will be compared to the reduction goals that are most relevant based on the specific source of emissions.

This climate test should form the basis for assessing whether a project's greenhouse gas emissions constitute a significant adverse environmental impact, necessitating preparation of a full environmental impact statement under SEPA. For large new fossil fuel and industrial projects, any increase in emissions would likely be significant, given that we need dramatic reductions in the immediate future. Even a decrease in emissions might still be a significant adverse environmental impact if that decrease is only a minor reduction from business as usual emissions, because we need reductions far below a business as usual scenario. The GAP Rule only applies to fossil fuel and industrial projects, and under this climate test it is likely and appropriate that all projects that fall under the GAP Rule would be required to prepare a full environmental impact statement based on the significant adverse effects of their greenhouse gas emissions.

Finally, as discussed in greater detail below, projects covered by the GAP Rule may not rely on mitigation to find a project insignificant. A mitigated DNS is not appropriate for such massive and consequential projects; a full environmental analysis is critical to ensure robust public participation and thoroughly vetted information. Similarly, a project covered by the GAP

Rule cannot rely on proposed mitigation to find its greenhouse gas emissions insignificant. The determination of significance must be based on gross emissions and the climate test.

Shortcomings in recent environmental assessments underscore the importance of requiring a climate test based on the best available science to assess significance. For example, for the Tacoma LNG Project, the Puget Sound Clean Air Agency set its significance criteria at "net" zero emissions. Using this flawed significance standard, the SEIS finds the project's lifecycle emissions over 40 years insignificant because they would not represent a major change from current emissions.

Using business-as-usual emissions to assess significance is untenable. There is broad global consensus that we must sharply reduce our greenhouse gas emissions, starting immediately. Various policy objectives, goals, and statutes specify the declines needed for the marine shipping industry. Goals set by the International Maritime Organization require ships to reduce greenhouse gas emissions by 50% by 2050. Likewise, the Washington legislature set steep greenhouse gas emissions reduction targets that require statewide emissions to fall 70% by 2050. RCW 70.235.005; RCW 70.235.020(1)(iii). These necessary reductions form the correct baseline against which to assess significance. Against this proper baseline, the greenhouse gas emissions from the Tacoma LNG project have a significant adverse environmental impact because the project would lock in business as usual levels of emissions for the next forty years.

The GAP Rule must not allow projects to rely on a business as usual baseline to assess significance. As courts have recognized, even minor reductions from business as usual emissions are significant when major reductions are needed. *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1224 (9th Cir. 2008) ("[S]imply because the Final Rule may be an improvement over the MY 2007 CAFE standard does not necessarily mean that it will not have a 'significant effect' on the environment[.]"). *See Ctr. for Biological Diversity v. Dep't of Fish & Wildlife*, 62 Cal. 4th 204, 225 (2015) (vacating an EIS because it failed to show whether the project would advance the State's decarbonization targets and mitigate impacts to global climate). Instead, the GAP Rule should require a climate test analysis based on the best available science to assess a project's significance.

The climate test analysis provides critical context for new projects by comparing the project's effects to specific climate reduction goals based on the best available science. We cannot judge the significance of a project's emissions against a business as usual scenario when we know that business as usual would lead to catastrophic warming.

III. ENVIRONMENTAL ASSESSMENT METHODS

Robust environmental assessment methods are a critical component of the GAP Rule. An accurate assessment of a project's full carbon footprint is a prerequisite to good decisionmaking by permitting authorities. It is also a prerequisite to meaningful mitigation.

A. Effects of the Action and the No Action Alternative

The GAP Rule should clarify that the effects of the action include the gross lifecycle greenhouse gas emissions associated with the project, including upstream and downstream emissions, and the no action alternative includes the absence of those emissions. For a new project, the no action alternative will typically involve leaving the site vacant, and greenhouse gas emissions will be zero. For a modification of an existing facility, the no action alternative will typically involve leaving the facility unmodified. The analysis of the effects of the action and the no action alternative should not include a lifecycle analysis of alternative products, or other analysis of effects based on market displacement.

As discussed above, due to the high level of uncertainty inherent in attempting to predict global markets decades into the future, "net emission" theories based on claims of market displacement should not be included in environmental assessments under the GAP Rule. The direct and indirect emissions attributable to a project can be calculated with a high degree of certainty. These certain new emissions must form the basis for permitting decisions and mitigation requirements. Displacement projections, on the other hand, are highly uncertain. A "net emissions" calculation essentially offsets certain new emissions with speculative projections. This apples-to-oranges comparison both provides misleading information for regulatory agencies and opens the door to massive, unmitigated emission increases when attempts to predict decades of global market effects turn out to be incorrect.

While net emissions should not play a role in any part of the analysis, it is especially problematic to incorporate them into the effects of the action or the no action alternative. Combining certain emissions with uncertain market speculation in the same portion of the analysis muddies the waters, leaving no portion of the analysis that is objective, reasonably certain, and verifiable. The GAP Rule must ensure that the effects of the action and the no action alternative only include gross emissions.

B. Methodology for Calculating Upstream and Downstream Emissions

1. Best Available Science

The rule should require the use of the best available science to calculate lifecycle emissions. For example, the rule should not specify a value for methane leakage. Instead, the rule should require use of the best available science to establish the methane leakage rate used for a particular project. The best available science may include values established by regulatory bodies, peer reviewed research, and other sources.

Requiring the use of the best available science means the rule will be able to accommodate changes and advances in science over time. Any fixed standard, in contrast, could quickly become obsolete. The substantial climate impacts associated with the extraction, transport, and use of gas provides a clear example of the need for guidance in the GAP Rule that evolves with time. Gas was once thought to be "cleaner" than other fossil fuels, but as science advanced it became clear that the emissions associated with extraction and transport were so

substantial that the perceived benefits were minimal to nonexistent. The GAP Rule must incorporate requirements that outlast our current level of knowledge about any one technology.

2. 95% Confidence Interval

There may be some scientific uncertainty in calculating upstream and downstream emissions. For example, there are varying calculations on the methane leakage rate from gas wells. Values used in assessments under the GAP Rule must represent the 95% confidence interval, such that there is a 95% chance that emissions will not exceed the value used. It is critical to use such conservative estimates in the face of uncertainty. The GAP Rule covers the largest, most carbon intensive sources, and we must be certain we are not underestimating their carbon footprint.

3. End Uses

Where a product has more than one potential end use, the environmental assessment must disclose lifecycle emissions for all reasonably foreseeable end uses of the product. For example, methanol is a petrochemical that is used in several ways, including as an input in plastics manufacturing and as a transportation fuel. A lifecycle analysis for a methanol plant must include lifecycle emissions calculations assuming the methanol is used in plastics and lifecycle emissions calculations assuming the methanol is used as fuel.

4. Upstream Emissions: Marginal Source and Average Emissions

The GAP Rule should include specific requirements for calculating emissions associated with energy or fossil fuels that a proposed project will use. To calculate upstream emissions, a project needs to use either the average emissions associated with energy or the fossil fuel, or the emissions of the average marginal source, whichever is higher. For example, a project that will generate a huge new demand for electricity would need to look at the average emissions associated with electricity in Washington as well as the average emissions associated with the marginal new source of electricity in Washington. The project would need to use the higher of the two. Similarly, a project that relies on a massive new supply of fracked gas would need to calculate average emissions associated with extraction and transport from existing wells, as well as average emissions associated with marginal new wells. Again, the project would have to use whichever number is higher.

Requiring projects to rely on the higher of average source or average marginal source emissions makes sense. It more accurately reflects the true footprint of a project by recognizing that energy and fossil fuels are part of a broader market. It removes opportunities for greenwashing and manipulation. And it provides a higher level of certainty and scientific integrity by requiring calculations at the commodity level that will be consistent across projects.

IV. APPLICABILITY

Ecology has proposed to apply the GAP Rule to fossil fuel and industrial projects that release at least 10,000 tons per year of greenhouse gas emissions, including direct and indirect emissions. We agree that this is an appropriate threshold and stress that it is critical that indirect emissions, including emissions outside of Washington, be included in this threshold calculation. Additionally, for modifications to an existing project, emissions resulting from any change in upstream or downstream emissions since the project received its initial permit, including any change in the product's end use or emissions associated with upstream materials, must count toward the project's emissions that trigger the rule's applicability.

V. RESPONSES TO ECOLOGY'S QUESTIONS ON METHODOLOGY

♣ *Are there special considerations we should take into account for projects that may lack a central facility or clear "on site" emissions (e.g., linear projects)?*

Especially for linear projects, it is critical that indirect emissions be included in the applicability threshold.

♣ *Is it more important to focus on the net emissions or on the gross emissions of a project? What should be the role of global economic analysis (e.g., developing a project global supply and demand curve) in the assessment?*

As discussed above, assessments under the GAP Rule must include an analysis of gross emissions, and must not include speculative net emission theories based on global market speculation.

♣ *What should the role of economics play in the Energy Analysis? Is it enough to note where supplies of energy will change, or should the price effects of those changes feed into a dynamic price model (or similar analyses)?*

The Energy Analysis should only incorporate effects that are reasonably foreseeable. Whether price and market effects are reasonably foreseeable may vary from project to project. A large change in supply or demand in a regional electricity market may lead to reasonably foreseeable price effects. Similarly, a large change in demand for fracked gas might lead to the reasonably foreseeable need to construct a new regional pipeline. Other market effects may not be reasonably foreseeable, and effects that are uncertain or speculative should not form part of the analysis. Because the circumstances surrounding each project's energy and fossil fuel use and production will be different, it is not possible to determine in advance which market effects will be reasonably foreseeable for all projects.

In calculating reasonably foreseeable effects as part of the Energy Analysis, project proponents must use a baseline that incorporates the greenhouse gas reductions and best available science from the climate test. For example, an analysis that considers the effect of a large change in supply or demand on electricity markets in Washington must also incorporate

Washington's clean energy mandate in the 2019 Clean Energy Transformation Act, among other sources. An analysis of price impacts based on the assumption that utilities will continue to rely on fossil fuels for electric generation would not be adequate.

Finally, the Energy Analysis must be separate from the calculation of a project's gross emissions. A project's gross emissions should only include direct, upstream, and downstream emissions attributable to the project.

♣ *What should the time period for the assessment be? Under SEPA, the analysis usually considers the typical operational lifespan of a project and construction but the time period could be longer to align with the GHG emission limits, or for other reasons.*

The time period for the assessment must include the projected lifespan of the specific project or the average lifespan of a comparable project, whichever is longer. Additionally, the assessment should include an analysis of the warming that will occur beyond the lifespan of the project as a result of the emissions from the project. Because different greenhouse gases persist for different lengths of time in the atmosphere, the time span for this analysis will vary based on the greenhouse gases emitted by each project. The GAP Rule should explicitly state that the time span for the analysis for different projects will vary and depends on the profile of a project's emissions.

SEPA requires disclosure of both short-term and long-term effects of a project. WAC 197-11-060(4)(c) (requiring agencies to consider both short-term and long-term effects). For that reason, as noted in the Governor's letter, the assessment should analyze global warming potentials for pollutants at both the 20-year and 100-year timelines, as recommended by the IPCC in their Fifth Assessment Report.

Recent flawed SEPA analyses highlight the importance of looking at warming potential for pollutants at both the 20-year and 100-year timelines. For example, for the Tacoma LNG project, the SEPA analysis only looked at the 100-year global warming potential of GHG emissions. In doing so, it overlooked significant short-term warming effects. Analyzing emissions for the project using 20-year global warming potentials for GHG emissions would have nearly doubled the GHG emissions estimate for the project.

♣ *Should the rule identify starting and ending points of the life cycle analysis for project inputs and outputs? This could be at specific points, or the rule could provide more general direction, depending on the project type.*

For fossil fuel projects, the lifecycle analysis must include emissions from extraction and transport through combustion and ultimate disposal of post-combustion waste. For industrial projects, more general direction may be appropriate since there is greater variation between projects.

♣ *At what point should the analysis terminate downstream? Should the first potential use be included in the life cycle analysis as the end point?*

• *For example, in the case of fossil fuels the combustion of that fuel if some other use is not known, or if the first potential use is not demonstrable?*

• *For non-fossil fuel products should the first potential use be considered to be the first use, or analyzed as multiple uses, or a final end use of the product?*

A complete lifecycle analysis terminates after the product has exhausted its useful life and been disposed. Ending lifecycle analysis with the first potential use could omit a significant portion of the downstream emissions attributable to a project, including the significant emissions associated with waste disposal.

VI. MITIGATION

The GAP Rule must include strong mitigation requirements. Several core issues, outlined below, are central to ensuring that mitigation under the GAP Rule is meaningful and equitable. We may provide more detailed comments on these and other mitigation issues following Ecology's webinar presentation on its mitigation proposal.

1. Equity

Proposed mitigation must include an equity analysis that discloses impacts to already overburdened and/or disproportionately impacted communities. Proposed mitigation must reduce these inequities. Project proponents must develop mitigation proposals in partnership with affected communities, through a robust and inclusive public process that includes language-appropriate outreach where necessary. The GAP Rule must place the burden on project proponents to develop a public process that generates meaningful community involvement.

2. Mitigate to Achieve Reductions

Ecology has proposed to require projects to mitigate their greenhouse gas emissions. We agree that mitigation is critical, but a requirement that projects mitigate their gross emissions does not go far enough. This preserves the business as usual status quo, which leads us to catastrophic climate change. Instead, projects must mitigate for their gross emissions as well as their fair share of the reductions we must achieve. Determining the reductions a project must incorporate into its mitigation should be linked to the climate test, discussed above.

3. Mitigation Must be Based on Gross Emissions

Projects must be required to mitigate for their gross emissions. "Net" emissions based speculative market displacement theories should not form any part of the analysis. In particular, "net" emission theories cannot reduce or excuse the obligation for a project to mitigate its full gross emissions.

4. Mitigation Must Happen Only After Emissions are Minimized

The GAP Rule must not confuse mitigation with efforts to minimize a project's emissions. The GAP Rule should make clear that measures that would minimize a project's emissions must happen as part of the project's assessment of alternatives. These may include alternative technologies or other measures that reduce the project's direct and indirect emissions. After the project proponent has picked the least environmentally harmful reasonable alternative, then they must analyze mitigation for that alternative's effects. Selecting a less harmful alternative does not constitute mitigation. Instead, project proponents must fully mitigate for the environmental effects of the selected alternative.

5. Mitigation Standards

Mitigation must be real, permanent, quantifiable, verifiable, enforceable, and additional. Ecology must develop robust standards, or adopt robust standards developed by other entities, to ensure that mitigation measures meet these central requirements.

* * *

Thank you again for the opportunity to participate in this critical rulemaking. Ensuring complete analysis and mitigation for large fossil fuel and industrial projects is critical to preventing catastrophic climate change. We look forward to participating in future stages of this rulemaking.

Sincerely,

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