EARTHJUSTICE

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Executive Secretary
Inter-American Court of Human Rights
San José, Costa Rica

Ref.: Request for an advisory opinion on the climate emergency and human rights

Dr. Saavedra Alessandri:

We respectfully submit the following brief in the name of *Earthjustice* for the purpose of assisting the Honorable Inter-American Court of Human Rights in developing its advisory opinion on the climate emergency and human rights in response to the request submitted by the Republic of Colombia and the Republic of Chile on January 9, 2023. This brief is submitted in accordance with articles 44 and 73(3) of the Rules of Procedure of the Inter-American Court and the Court's invitation to all interested parties to make written submissions.

This brief presents legal and technical arguments showing that States have an obligation to **use the maximum available means and resources to mitigate greenhouse gas (GHG) emissions**, as part of their obligations to respect and ensure the human rights enshrined in the American Convention on Human Rights. This requires States to ensure a just transition to clean energy, which includes phasing-out fossil fuel extraction, replacing fossil fuel-generated energy with clean power, and conducting climate assessments before approving any new activity.

Earthjustice is a nonprofit, non-governmental, public interest environmental law organization based in the United States. We wield the power of law and the strength of partnership to protect people's health, to preserve magnificent places and wildlife, to advance clean energy, and to combat climate change. Earthjustice works to promote the human right to a healthy environment and to fight for climate justice in countries all over the Americas and in other regions of the world. We have extensive experience working with both national courts and international bodies, including the Inter-American Human Rights System, the United Nations human rights bodies, and the United Nations Framework Convention on Climate Change.

I. Questions Presented

This brief presents legal and technical arguments relevant to resolving the following questions in the request for an advisory opinion on the climate emergency and human rights:

A. "Regarding State obligations derived from the duties of prevention and the guarantee of human rights in relation to the climate emergency.
    1. What is the scope of the State's duty of prevention with regard to climate events caused by global warming, including extreme events and slow onset events, based

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on the obligations under the American Convention, in light of the Paris Agreement and the scientific consensus which recommend that global temperatures should not increase beyond 1.5°C?

…

2.A. What should a State take into consideration when implementing its obligations: (i) to regulate; (ii) to monitor and oversee; (iii) to request and to adopt social and environmental impact assessments; (iv) to establish a contingency plan, and (v) to mitigate any activities under its jurisdiction that exacerbate or could exacerbate the climate emergency?

…

B. Regarding State obligations to preserve the right to life and survival in relation to the climate emergency in light of science and human rights

1. What is the scope that States should give to their obligations under the Convention vis-à-vis the climate emergency, in relation to:

…

ii. The climate adaptation and mitigation measures to be adopted to respond to the climate emergency and the impacts of such measures, including specific "just transition" policies for groups and individuals who are particularly vulnerable to the effects of global warming;"

II. Summary

The emerging climate crisis is "an urgent and potentially irreversible threat to human societies and the planet"[1] that requires "deep, rapid, and, in most cases, immediate GHG emissions reductions" across "all sectors this decade."[2] The American Convention on Human Rights entails an obligation of prevention, pursuant to which "States are bound to use all the means at their disposal to avoid activities under their jurisdiction causing significant harm to the environment."[3] In the present context of the climate crisis in which every new oil well drilled and every gram of coal burned will make it harder to reduce warming and avoid further harms to the climate and human rights, this obligation requires States to use the maximum available means and resources to ensure a just transition to clean energy.

This Court has noted that the specific measures necessary to prevent significant harm to the environment will vary based on the "conditions" within each country,[4] which requires considering both a State's responsibility for climate change and its capacity to respond. As a result, the measures each State must take and the timeline for its transition will differ based on the State's "fair share contribution" to the global effort against climate change. This means that

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[1] Decision 1/CP.21, Adoption of the Paris Agreement, p. 2, UN Doc FCCC/CP/2015/10/Add.1 (Jan. 29, 2016).
[2] IPCC, Summary for Policymakers, *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, p. 20 (2023), https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_FullVolume.pdf (**IPCC, AR6 Summary for Policymakers**).
[3] Inter-American Court of Human Rights (IACtHR), Advisory Opinion OC-23/17, The Environment and Human Rights, (15 Nov. 2017), para. 142.
[4] IACtHR, OC-23/17, para. 144.

more developed States and those responsible for greater historical and current emissions must immediately take significant mitigation measures to reduce their own emissions. In addition, these States must provide substantial aid to less-developed States to support their transition to clean energy. However, some mitigation action is required by all States because "the obligation of prevention applies equally to both developed and developing States."[5]

In some situations, human rights obligations will require more substantial measures or faster reductions than those required to meet a State's nationally determined contributions or other responsibilities under the various UNFCCC agreements. In such cases, States must take the actions necessary to meet their human rights obligations. This is compatible with climate commitments in the UNFCCC treaties and the principle of common but differentiated responsibilities and respective capabilities because the UNFCCC treaties set a floor of minimum actions, not a ceiling, and explicitly allow any Party to "enhanc[e] its level of ambition" at any time.[6] Consequently, States cannot justify noncompliance with the American Convention on the ground that they are complying with less ambitious commitments under the UNFCCC agreements.

Because every State in the hemisphere has contributed to global climate change and is capable of mitigating emissions, every State must take some measures to ensure a clean energy transition, including at least the following:

(1) Each State must immediately begin phasing out fossil fuel extraction according to its fair share. Minimizing climate change's impact on human rights requires severely reducing the extraction of fossil fuels until reaching global net-zero emissions. Therefore, States must take immediate steps toward ending nearly all fossil fuel extraction by progressively halting approvals of fossil fuel exploration and extraction. This phase-out must begin immediately, but the exact timeline will depend on each State's fair share contribution. Given their greater historical contributions to climate change and current capacity for mitigation, more developed States must end fossil fuel production on an accelerated timeline, which must include immediately stopping approval of exploration or extraction activities in new fossil fuel reserves. In addition to their independent obligations to phase out fossil fuel extraction, all developed States must also provide financial and technical support to facilitate other States in ending their production. Finally, every State must end subsidies for fossil fuel production.

(2) States must eliminate most fossil fuel consumption and replace it with clean energy sources. In addition to halting extraction of fossil fuels, States must also take measures to drastically limit the burning of fossil fuels and promote renewable alternatives. Transitioning to clean energy in the electricity-generation sector is an essential first step, as it is foundational for transitioning most other sectors, including transportation, heating, and industry. To do so, States must begin phasing out fossil fuel-burning power plants on a timeline consistent with their fair share contribution to global emissions reductions. To replace this power with clean sources, States must adopt policies that actively promote renewable energy sources over fossil fuels and eliminate barriers to the generation of renewable energy. Governments must also avoid so-called "false solutions"—practices, such as carbon capture and storage, that are promoted as climate solutions, but which actually facilitate the continued burning of fossil fuels and reduce resources for building more clean energy capacity. Finally, although States must begin taking these steps

[5] IACtHR, OC-23/17, para. 142.
[6] Paris Agreement, art. 4.11, UN Doc FCCC/CP/2015/10/Add.1 (29 Jan. 2016), Annex.

immediately, they must do so while also ensuring that clean energy activities do not undermine human rights or environmental protections. Among other things, this requires guaranteeing opportunities for public participation and access to information before finalizing any decision on new energy policies.

(3) States must conduct climate assessments before approving fossil fuel projects or other sources of climate pollution, or before adopting decisions on energy policy. Prioritizing activities to be stopped, phased out, or undertaken to minimize the human rights impacts of climate change, as well as the pace at which each state must act, depends on having an accurate understanding of how newly proposed activities contribute to global climate change. Therefore, before approving any new fossil fuel project, States must evaluate, using the best available science, the project's full life-cycle emissions, including any indirect ("scope 3") emissions from upstream or downstream activities. Such assessments should consider whether the project's contribution to climate change is consistent with the State's human rights obligations and its fair share contribution, and the State should reject any fossil fuel project where a clean energy alternative could provide similar benefits. States must also assess how the worsening climate crisis may affect a project's viability or exacerbate its other, non-climate impacts on the environment. In addition to evaluating individual projects, States should also conduct strategic environmental assessments that can evaluate the large-scale climate effects of high-level energy policies or regulations, as these decisions have a significant impact on a country's capacity to transition to clean energy.

III. Legal Arguments

A. To safeguard human rights in the current climate crisis, every State must use the maximum available means and resources to mitigate greenhouse gas emissions.

The climate crisis is "an urgent and potentially irreversible threat to human societies and the planet" that requires "deep reductions in global emissions."[7] As an increasing number of international bodies are recognizing, this emerging climate crisis is affecting the human rights of communities across the Americas and the globe.[8] Minimizing this impact and ensuring a livable future requires keeping global warming to the smallest increase possible. Any global temperature rise above the 1.5°C goal of the Paris Agreement would unavoidably result in

[7] Decision 1/CP.21, Adoption of the Paris Agreement, p. 2, UN Doc FCCC/CP/2015/10/Add.1 (29 Jan. 2016).
[8] E.g. Inter-American Commission on Human Rights (IACHR), Resolution No. 3/2021, Climate Emergency: Scope of Inter-American Human Rights Obligations (31 Dec. 2021), https://www.oas.org/en/iachr/decisions/pdf/2021/resolucion_3-21_ENG.pdf; UN Committee on Economic, Social and Cultural Rights, Climate change and the International Covenant on Economic, Social and Cultural Rights (8 Oct. 2018), https://www.ohchr.org/en/statements/2018/10/committee-releases-statement-climate-change-and-covenant; *see also*, UN Committee on the Elimination of Discrimination Against Women, Committee on Economic Social and Cultural Rights, Committee on the Protection of the Rights of All Migrant Workers and Members of their Families, Committee on the Rights of the Child, Committee on the Rights of Persons with Disabilities, Joint Statement on "Human Rights and Climate Change" (16 Sept. 2019), https://www.ohchr.org/en/statements/2019/09/five-un-human-rights-treaty-bodies-issue-joint-statement-human-rights-and (**UN Committee Joint Statement on Human Rights and Climate Change**).

increasingly drastic threats to human rights and the environment.[9] The Intergovernmental Panel on Climate Change (IPCC) concluded in its 2023 synthesis report that reaching this goal will require "deep, rapid, and, in most cases, immediate GHG emissions reductions" across "all sectors this decade."[10] The secretariat of the UN Framework Convention on Climate Change (UNFCCC) warned that "[t]he window to keep [the possibility of] limiting warming to 1.5°C within reach is closing rapidly, and progress is still inadequate based on the best available science."[11] To maintain this possibility, States must achieve net zero emissions—meaning that any emissions must be negated by carbon removal or sinks—by 2050.[12] Nonetheless, even with full implementation of long-term net-zero targets, the world may exceed a temperature increase of 2°C.[13] Such an increase would be devastating to human rights in the Americas.

In its Advisory Opinion OC-23, this Court explained that the American Convention requires States to "use all the means at their disposal to avoid activities under their jurisdiction causing significant harm to the environment."[14] Although the Court noted that the specific measures will vary by each case, they must always be "appropriate and proportionate to the level of risk of environmental harm."[15] Because the risk of harm from climate change is extreme and urgent, the American Convention requires States to take substantial and immediate steps to prevent it. If they cannot ensure full enjoyment of environmental rights, the Court nevertheless requires States to make "every effort … to use all resources at [their] disposal" to make progress toward doing so.[16] UN human rights bodies have also noted that States should "dedicate the maximum available resources to the adoption of measures that could mitigate climate change."[17] These obligations are mirrored in the Paris Agreement's call for mitigation measures consistent with each State's "highest possible ambition."[18]

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[9] Any increase in global average temperatures from climate change can threaten human rights. The IPCC warns that even with the Paris Agreement goal, "there are limits to adaptation and adaptive capacity for some human and natural systems at global warming of 1.5°C, and with every increment of warming, losses and damages will increase." IPCC, AR6 Summary for Policymakers, *supra* note 2, p. 25. We refer to the Paris Agreement goal in this brief not as a minimum requirement for protecting human rights, but rather as a convenient benchmark, above which global climate change will undeniably endanger human rights.

[10] *Ibid.*, p. 20.

[11] United Nations Framework Convention on Climate Change, *Technical Dialogue of the First Global Stocktake Synthesis Report by the Co-Facilitators on the Technical Dialogue*, para. 80, FCCC/SB/2023/9 (8 Sept. 2023), https://unfccc.int/sites/default/files/resource/sb2023_09_adv.pdf.

[12] IPCC, AR6 Summary for Policymakers, *supra* note 2, p. 20.

[13] Technical Dialogue of the First Global Stocktake Synthesis Report, *supra* note 11, para. 78.

[14] IACtHR, OC-23/17, para. 142.

[15] IACtHR, OC-23/17, para. 142.

[16] IACtHR, OC-23/17, para. 121 (quoting ESCR Committee, General Comment No. 12: The right to adequate food (art. 11 of the International Covenant on Economic, Social and Cultural Rights), 12 May 1999, UN Doc. E/C.12/1999/5, para. 17). The UN Office of the High Commissioner for Human Rights has similarly recognized that "[a] lack of resources cannot justify inaction or indefinite postponement of measures." OHCHR, *Frequently Asked Questions on Economic, Social and Cultural Rights*, p. 16 https://www.ohchr.org/sites/default/files/Documents/Publications/FactSheet33en.pdf. *See also* UN Economic and Social Council, Economic, social and cultural rights, Report of the United Nations High Commissioner for Human Rights, E/2017/70 (16 May 2017), para 20, https://documents-dds-ny.un.org/doc/UNDOC/GEN/G17/119/04/PDF/G1711904.pdf?OpenElement.

[17] UN Committee on Economic, Social and Cultural Rights, Climate change and the International Covenant on Economic, Social and Cultural Rights, *supra* note 8, para. 8; *see also*, UN Committee Joint Statement on Human Rights and Climate Change *supra* note 8, para. 7.

[18] Paris Agreement, art. 4(3).

1. States must ensure that mitigation measures meet, at a minimum, their fair share contribution to efforts against the climate crisis.

This Court has explained that the obligation of States to use "all means at their disposal to avoid … causing significant harm to the environment"[19] is not limitless, but rather requires measures "that will vary according to the right in question and according to conditions in each State party."[20] This is analogous to the principle of "common but differentiated responsibilities and respective capabilities, in light of different national circumstances"[21] enshrined in international environmental law and the UNFCCC treaties.

To guide the determination of the specific measures the American Convention requires from each State, this Court should adopt the emerging concept of States' "fair share contributions" to global efforts to address the climate crisis. This idea applies principles of equity, responsibility, and capability to determine the exact pace at which a State must phase out fossil fuels.[22] While there are multiple methods for determining a country's specific fair share contribution, all are based on two main factors that mirror those underlying this Court's jurisprudence and are consistent with the UNFCCC treaties: each State's share of the global responsibility for causing climate change and its capability to address it.[23]

Considering a State's responsibility for causing climate change—which is based on its historical GHG emissions—in determining its fair share is consistent with this Court's recognition that States are responsible for transboundary human rights harms caused by activities "originating in their territory or under their effective control or authority."[24] It is also consistent with the principle of common but differentiated responsibilities, which incorporates each State's "different contributions to global environmental degradation."[25] Developed countries bear

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[19] IACtHR, OC-23/17, para. 142.
[20] IACtHR, OC-23/17, para. 144.
[21] Paris Agreement, art. 4(3).
[22] *See, e.g.*, Climate Equity Reference Project, *About the Climate Equity Reference Project Effort-Sharing Approach*, https://climateequityreference.org/about-the-climate-equity-reference-project-effort-sharing-approach/.
[23] *See* Supreme Court of the Netherlands, *The State of the Netherlands v. Stichting Urgenda* (20 Dec. 2019), paras. 5.7.1—5.7.9, 6.2 https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2020/20200113_2015-HAZA-C0900456689_judgment.pdf (noting that "[t]hese general obligations and principles [set out in the UNFCCC] mean that a fair distribution must take place, taking into account the responsibility and state of development of the individual countries."); Civil Society Equity Review, *A Fair Shares Phase Out: A Civil Society Equity Review on an Equitable Global Phase Out of Fossil Fuels*, p. 16 (2021), https://static1.squarespace.com/static/620ef5326bbf2d7627553dbf/t/622824a543109c49186ef913/1646797999602/CSO.Equity.Review-2021-A.Fair.Shares.Phase.Out.Of.Fossil.Fuels.pdf; Climate Action Tracker, *Fair Share*, https://climateactiontracker.org/methodology/cat-rating-methodology/fair-share/; Lavanya Rajamani et al., *National 'Fair Shares' in Reducing Greenhouse Gas Emissions Within the Principled Framework of International Environmental Law*, Climate Policy, vol. 21, p. 996 (7 Sept. 2021), https://www.tandfonline.com/doi/epdf/10.1080/14693062.2021.1970504?needAccess=true.
[24] IACtHR, OC-23/17, para. 103.
[25] United Nations, General Assembly, Report of the United Nations Conference on Environment and Development, Annex I, Rio Declaration on Environment and Development, principle 7, A/CONF.151/26 (Vol. I) (12 Aug. 1992), https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf (**Rio Declaration**).

significantly more responsibility because they have far exceeded their fair share level of emissions for decades.[26]

The second factor, economic capacity, considers both a country's available economic resources and the difficulty of ending fossil fuel dependency. This takes into account "the conditions in each State Party"[27] as well as its "respective capabilities,"[28] while still recognizing the need to "dedicate the maximum available resources to the adoption of measures that could mitigate climate change."[29] Developed States have a greater capacity to phase out fossil fuel extraction rapidly, "greater resources to invest in just transition," and "lower levels of economic dependence on fossil fuels."[30] Less-developed States with a greater dependency on fossil fuel revenues will need more time to transition their economies without adversely affecting development and social programs dependent on these revenues.[31]

2. Nearly every State, regardless of economic development, must take some measure to mitigate climate change.

Although national conditions are relevant to determining the scope of each State's fair share of action to address climate change, both this Court's jurisprudence and the UNFCCC treaties recognize that national conditions cannot relieve a State that makes some contribution to the harm from taking action to remedy it. Like the UNFCCC's recognition that the responsibilities are "common" to all States, this Court has recognized that the obligation to prevent environmental harm "applies equally to both developed and developing States."[32]

Because each State in the hemisphere is contributing to global climate change, each State must take some measures to mitigate its greenhouse gas emissions. Any effort to do so that does not reflect a State's maximum available means and resources is inconsistent with both its human rights obligations and the principle of common but differentiated responsibilities.

3. To fully protect human rights, the American Convention may require States to take more ambitious mitigation measures than those required by the UNFCCC treaties.

States' obligations to protect human rights may require them to do more or act faster to mitigate climate changes and transition to clean energy than their nationally determined contributions offered under the Paris Agreement. In such circumstances, States must implement the more ambitious measures necessary to protect human rights. Fulfilling their human rights

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[26] *See, e.g.*, Andrew L. Fanning and Jason Hickel, *Compensation for Atmospheric Appropriation*, Nature Sustainability, vol. 6, pp. 1078-89 (5 June 2023), https://www.nature.com/articles/s41893-023-01130-8.
[27] IACtHR, OC-23/17, para. 144.
[28] Paris Agreement, Article 4(3).
[29] UN Committee on Economic, Social and Cultural Rights, Climate change and the International Covenant on Economic, Social and Cultural Rights, *supra* note 8, para. 8; *see also*, UN Committees Joint Statement on Human Rights and Climate Change, *supra* note 8, para. 7.
[30] Civil Society Equity Review, *A Fair Shares Phase Out*, *supra* note 23, p. 28.
[31] *Ibid*., p. 22; *see also* Devashree Saha et al., *Just Transitions in the Oil and Gas Sector: Considerations for Addressing Impacts on Workers and Communities in Middle-Income Countries*, p. 10, World Resources Institute (Jan. 2023), https://files.wri.org/d8/s3fs-public/2023-01/just-transitions-oil-gas-sector.pdf?VersionId=jZEr3RLHhUaUJmLXAy3Jho71hZ2scfqQ.
[32] IACtHR, OC-23/17, para. 142.

obligations in this way is completely consistent with the UNFCCC agreements,[33] which establish a *floor* for Parties' climate action, not a ceiling. For example, the Paris Agreement repeatedly recognizes that achieving its goals will require a "progression over time" in Parties' efforts.[34] To that end, the agreement explicitly allows any Party, "at any time," to "enhanc[e] its level of ambition" by setting new mitigation goals.[35] There is thus nothing in the UNFCCC agreements that limits States' obligation to take all actions necessary to meet their commitments under the American Convention or any other human rights treaty. In fact, the Paris Agreement explicitly calls on Parties to "respect, promote and consider their respective obligations on human rights" when acting to address climate change.[36]

An important consequence of this relationship between the climate and human rights regimes is that States cannot use less-ambitious climate commitments to justify a failure to comply with the American Convention. To do otherwise would violate Article 29 of the American Convention, which prohibits interpretations that permit States "to suppress freedoms recognized in this Convention or to restrict them to a greater extent than is provided for herein."[37]

Finally, it is important to note that the inaction of other States cannot justify noncompliance with the American Convention. Human rights obligations are *erga omnes*—owed to the entire international community—and thus States cannot suspend or withhold their commitments to ensure human rights simply because other States have done so.[38] Thus, although States may make some nationally determined contributions contingent upon action by others, the same does not apply to the human rights obligation to prevent climate damage: every State must use its maximum available means and resources regardless of the actions of other States.

B. The American Convention requires all States to take certain minimum measures to ensure a just transition to clean energy.

Every OAS member State is emitting greenhouse gases that contribute to the climate crisis that is undermining human rights. Every State is also capable of mitigating at least some of its emissions. As noted above, these mitigation efforts must reflect a State's maximum available means and resources and meet their fair share contribution to global efforts. Although mitigation is necessary in many sectors, this brief focuses on one sector that is particularly

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[33] Under international law, if successive treaties relate to the same subject matter, States must still comply with obligations under an earlier treaty "to the extent that its provisions are compatible with those of the later treaty." Vienna Convention on the Law of Treaties (27 Jan. 1980), art. 30.3.
[34] Paris Agreement, arts. 3, 4.3, & 4.4.
[35] Paris Agreement, art. 4.11.
[36] Paris Agreement, preamble.
[37] Organization of American States, American Convention on Human Rights (22 Nov. 1969), art. 29.1.
[38] Under international law, the non-performance of an international obligation cannot be used as a counter measure for another State's internationally wrongful act if it affects the "obligation for the protection of fundamental human rights." International Law Commission, *Draft articles of Responsibility of States for Internationally Wrongful Acts, with commentaries* (2001), art. 50.1.b; *see also* Vienna Convention on the Law of Treaties, *supra* note 33, art. 60.5 (The termination of treaty obligations due to material breach "[does] not apply to provisions relating to the protection of the human person contained in treaties of a humanitarian character.").

important—electric power generation—and enumerates mitigation measures that nearly every State, regardless of its level of development, is capable of taking immediately.[39]

Most of the emissions that cause global warming are the result of energy generation—specifically the production and use of fossil fuels for electricity, heating, and transportation.[40] Every new oil well drilled and every existing gas or coal-burning power plant that is allowed to continue emitting GHGs will make it harder to reduce warming and mitigate the resulting effects on human rights. Rapidly replacing this fossil fuel infrastructure with clean and carbon-free sources of energy, many of which are readily available and technically and economically feasible for most States, is thus one of the most important mitigation measures a State can take. If done properly, this transition can also provide greater access to cheaper electricity, thereby contributing to sustainable development goals.

The timeline on which a State must shift from carbon-based energy will depend on the State's "fair share" contribution to climate action, a measure determined, as described in section A.1 above, on the basis of a State's past emissions, and its capability to finance new clean energy projects and wean itself from fossil fuel dependency. In particular, States with greater historic and present levels of climate pollution and those with greater economic capacity must pursue more immediate and ambitious measures to cut fossil fuel production and use. They must also provide financial and technical support to less responsible and less-developed States as they make their own transitions.[41]

1. <u>States must take immediate steps to phase out fossil fuel extraction according to their fair share.</u>

Eliminating the extraction of nearly all coal, oil, gas, and other fossil fuels is one of the most crucial steps for ensuring a just transition to clean energy. As noted above, maintaining current levels of fossil fuel extraction is inconsistent with a livable future in which global warming is limited to the furthest extent possible and, at a minimum, does not exceed a 1.5°C increase in average temperatures. Assuming minimal reliance on carbon dioxide removal in meeting this goal, global coal, oil, and gas supplies must decline by 99%, 70%, and 84%, respectively, from 2020 to 2050.[42] Achieving this level of reductions will require early retirement of a "significant portion of existing [fossil fuel] fields and mines"[43] because burning

[39] While central to preventing climate damage, the transition to clean energy is part of a broader set of actions States must urgently take, which should also include measures to address emissions from other important sources of GHGs such as agriculture, deforestation, and land use change.
[40] United Nations, *Facts and Figures*, https://www.un.org/en/actnow/facts-and-figures.
[41] *See* Paris Agreement, art. 9.
[42] Ploy Achakulwisut *et al.*, *Global Fossil Fuel Reduction Pathways Under Different Climate Mitigation Strategies and Ambitions*, Nature Communications vol. 14:5425 (13 Sept. 2023), https://www.nature.com/articles/s41467-023-41105-z. Based on expert surveys, this study assumes that the cumulative availability of carbon dioxide removal from 2020-2100 will be limited to 196 $GtCO_2$ (Bioenergy with CCS), 224 $GtCO_2$ (afforestation), and 320 $GtCO_2$ (Direct Air Capture with Carbon Storage).
[43] Kelly Trout et al., *Existing Fossil Fuel Extraction Would Warm the World Beyond 1.5°C*, Environmental Research Letters, p. 9 (2022), https://iopscience.iop.org/article/10.1088/1748-9326/ac6228/pdf. International Institute for Sustainable Development (IISD), *Navigating Energy Transitions Mapping the Road to 1.5°C*, p. 18 (Oct. 2022) https://www.iisd.org/system/files/2022-10/navigating-energy-transitions-mapping-road-to-1.5.pdf.

all developed reserves of coal, oil and gas would push the world well beyond the 1.5°C target. Such reductions also require not developing any new fossil fuel reserves.[44]

The timeline and speed at which States must halt fossil fuel extraction should reflect their "fair share" contribution to reducing global emissions. According to the International Energy Agency, to reach net zero emissions, "emissions in advanced economies [need to] fall nearly two-times faster in the current decade than emissions in emerging market and developing economies."[45] A study by the University of Manchester concludes that wealthier fossil fuel producing States have the capacity to and must eliminate coal production by 2030[46] and all other fossil fuels by 2034.[47]

For these reasons, developed, historically high-emitting States must immediately stop approving fossil fuel exploration and production in new and existing reserves, halt the granting of new concessions, refrain from extending existing concessions, and begin shutting down activities in existing reserves. They should also use taxes, royalties, pollution controls, and other measures to force producers to bear the social and environmental costs of extraction, including by charging producers for wasting methane emissions that are vented, flared, or lost through fugitive emissions.[48]

Developing states must begin taking the same steps, although those that rely heavily on fossil fuel revenues may do so over a longer period to avoid adversely affecting workers and communities supported by production revenues.[49] They should also be supported in these efforts by financial and technical assistance from developed States to help compensate for lost revenues and accelerate the transition. But the entitlement to support does not justify increasing emissions beyond their fair shares or avoiding taking measures to begin the fossil fuel phase-out. In light of the severity and urgency of this crisis, the development of new fossil fuel reserves by any but the least developed States that are most reliant on fossil fuel revenues would violate obligations to respect and ensure human rights.

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[44] *See* International Institute for Sustainable Development (IISD), *Navigating Energy Transitions Mapping the Road to 1.5°C*, p. 18 (Oct. 2022) https://www.iisd.org/system/files/2022-10/navigating-energy-transitions-mapping-road-to-1.5.pdf; *see also* Dan Caverley and Kevin Anderson, Tyndall Centre for Climate Change Research, *Phaseout Pathways for Fossil Fuel Production within Paris-compliant Carbon Budgets*, p. 6 (11 Mar. 2022), https://research.manchester.ac.uk/en/publications/phaseout-pathways-for-fossil-fuel-production-within-paris-complia.

[45] International Energy Agency (IEA), *Net Zero Roadmap: A Global Pathway to Keep the 1.5°C Goal in Reach*, p. 59 (2023) https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach.

[46] Caverley and Anderson, *Phaseout Pathways for Fossil Fuel Production within Paris-compliant Carbon Budgets* at, supra note 46, p. 6.

[47] *Ibid.*

[48] For example, the U.S. Inflation Reduction Act imposes royalties on all gas produced on Federal land onshore and offshore, "including all gas that is consumed or lost by venting, flaring, or negligent releases through any equipment during upstream operations." United States, Public Law 117-169 (16 Aug. 2022), Sec. 50263, https://www.govinfo.gov/content/pkg/PLAW-117publ169/pdf/PLAW-117publ169.pdf.

[49] Caverley and Anderson, *Phaseout Pathways for Fossil Fuel Production*, supra note 46, p. 10; see also, Devashree Saha et al., World Resources Institute (WRI), *Just Transitions in the Oil and Gas Sector: Considerations for Addressing Impacts on Workers and Communities in Middle-Income Countries*, p. 3, (Jan. 2023), https://files.wri.org/d8/s3fs-public/2023-01/just-transitions-oil-gas-sector.pdf?VersionId=jZEr3RLHhUaUJmLXAy3Jho71hZ2scfqQ ("The long-term shift away from oil and gas, along with the periodic market volatility that is characteristic of the industry, will contribute to job displacement and insecurity for workers directly and indirectly supported by the industry").

On the other hand, the fact that developing States have independent obligations to phase out fossil fuel extraction does not relieve developed States from the obligation to provide financial assistance to developing nations to compensate for the lost revenue and speed up the global transition.[50] This assistance should go beyond other commitments States have already made under the Paris Agreement.[51]

A swift and early phase-out of fossil fuel extraction will also support sustainable development and the fulfillment of other civil, economic, social and cultural rights. Fossil fuel extraction is an inherently risky activity that inevitably places the environment and health of local communities at risk from air and water pollution, among other localized impacts.[52] In addition to reducing these risks, phasing out fossil fuel extraction will insulate States from potential near-term economic harm from a reduction in fossil fuel demand and prices that will accompany the decarbonization of the global economy.[53] A recent United Nations Development Program report warns that fossil fuel export-dependent States that fail to "anticipate this global transition in time" may face profound financial losses that "could roll back current levels of development by decades."[54] For example, if Colombia continues to rely on the economically volatile global fossil fuel trade, it stands to lose more than $USD88 billion in economic output—or 27% of its 2019 GDP—between now and 2050.[55] Among other consequences, being ill-prepared for declines in fossil fuel revenues would limit the ability of States and subnational governments to provide key public services, such as education, healthcare, and physical infrastructure.[56] By contrast, moving to clean energy would cost Latin America and the Caribbean almost $USD 1 trillion less, create nearly twice as many jobs by 2050, and produce over 75% fewer greenhouse gas emissions than a transition from coal and oil to natural gas.[57]

2. <u>States must eliminate all subsidies for fossil fuel extraction and begin reducing subsidies for fossil fuel consumption.</u>

Last year, governments spent a record $USD7 trillion on subsidies for oil, coal, and natural gas production and consumption—the equivalent of 7.1% of global gross domestic

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[50] Caverley and Anderson, *Phaseout Pathways for Fossil Fuel Production*, supra note 46, p. 11-13.
[51] Article 9 of the Paris Agreement requires developed States to "provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention." Paris Agreement, art. 9.
[52] See, United Nations Environmental Programme (UNEP), *Environmental Management in Oil and Gas Exploration and Production: An Overview of Issues and Management Approaches*, 1997, pp. 11-16, https://wedocs.unep.org/handle/20.500.11822/8275.
[53] Lars Jensen, United Nations Development Program, *Global Decarbonization in Fossil Fuel Export-Dependent Economies*, p. 21, (May 2023), https://www.undp.org/publications/dfs-global-decarbonization-fossil-fuel-export-dependent-economies.
[54] *Ibid*.
[55] WTW, Universidad de Los Andes, *Understanding the impact of a low carbon transition on Colombia*, p. 5 (Aug. 2023) https://www.wtwco.com/en-us/insights/2023/08/understanding-the-impact-of-a-low-carbon-transition-on-colombia.
[56] WRI, *Just Transitions in the Oil and Gas Sector, supra* note 49, p. 3.
[57] UNEP, *Is Natural Gas a Good Investment for Latin America and the Caribbean? From Economic to Employment and Climate Impacts of the Power Sector* p. 7 (2022), https://wedocs.unep.org/handle/20.500.11822/40923.

product.[58] This is over 65% more than they spent on education and approximately two-thirds of their healthcare spending.[59] Countries in Latin America and the Caribbean spent around $USD2 trillion—or nearly a third of regional GDP—on fossil fuel subsidies.[60] In 2019, net fossil fuel subsidies in Venezuela, Ecuador, Bolivia, and Argentina totaled 85.6%, 29.2%, 23.5%, and 15.4% of their health expenditures, respectively.[61]

Using government funds to prop up the fossil fuel sector and incentivize further fossil fuel consumption is inconsistent with a State's obligation to use the maximum available means and resources to ensure a just transition to clean energy. Subsidies prolong and expand climate harm by enabling fossil fuel projects that would otherwise be economically unviable and diverting limited public funds away from the clean energy sector. Most recently, the draft First Global Stocktake under the Paris Agreement noted the need to "phas[e] out inefficient fossil fuel subsidies that do not address energy poverty or just transitions, as soon as possible."[62] The Office of the United Nations High Commissioner for Human Rights has stated that "for States to comply with their human rights obligations and climate commitments, they must discontinue financial incentives for fossil fuels, including subsidies and other forms of public finance, through effective policies designed to avoid negative impacts on the poor and marginalized."[63] The Inter-American Commission's 2021 resolution on climate obligations[64] and the 2021 Glasglow Climate Pact urge States to do the same.[65]

Although clean energy is very often less expensive than fossil-generated energy, removing fossil fuel subsidies can sometimes increase energy prices, which can threaten the lives and health of lower-income populations. States should therefore develop and apply "policies to prevent any potential increase in energy prices from affecting vulnerable populations."[66] For example, the IMF has noted that "[a] portion of savings from subsidy reform can … finance

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[58] Simon Black, Ian Parry, Nate Vernon, *Fossil Fuel Subsidies Surged to Record $7 Trillion*, International Monetary Fund (24 Aug. 2023), https://www.imf.org/en/Blogs/Articles/2023/08/24/fossil-fuel-subsidies-surged-to-record-7-trillion.

[59] *Ibid*.

[60] Simon Black et al., *IMF Fossil Fuel Subsidies Data: 2023 Update*, IMF Working Paper WP/23/169, p. 18 (Aug. 2023), https://www.imf.org/-/media/Files/Publications/WP/2023/English/wpiea2023169-print-pdf.ashx; according to the World Bank, total GDP in the LAC region was 6.25 trillion in 2022, World Bank, World Development Indicators, (2023) https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=ZJ

[61] Stella M. Hartinger et al., *The 2022 South America report of The Lancet Countdown on health and climate change: trust the science. Now that we know, we must act*, The Lancet Countdown, p. 25 (28 Mar. 2023), https://www.thelancet.com/journals/lanam/article/PIIS2667-193X(23)00044-3/fulltext.

[62] Conference of the Parties Serving as the Meeting of the Parties to the Paris Agreement, *Outcome of the First Global Stocktake*, FCCC/PA/CMA/2023/L.17 (13 Dec. 2023), para. 28(h), https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf.

[63] Office of the United Nations High Commissioner for Human Rights (OHCHR), *Human Rights, Climate Change and Business: Key Messages*, p. 8, https://www.ohchr.org/sites/default/files/Documents/Issues/ClimateChange/materials/KMBusiness.pdf.

[64] IACHR, Resolution No. 3/2021, *supra* note 8, para. 57.

[65] Adopted by almost 200 countries including most Latin American states, the Glasgow Climate Pact calls on States to "accelerat[e] efforts towards phase-out of inefficient fossil fuel subsidies, while providing targeted support to the poorest and most vulnerable in line with national circumstances and recognizing the need for support towards a just transition." *Glasglow Climate Pact*, Decision 1/CMA.3, FCCC/PA/CMA/2021/10/Add.1, para. 36 (8 Mar. 2022) https://unfccc.int/sites/default/files/resource/cma2021_10_add1_adv.pdf.

[66] Stella M. Hartinger et al., *The 2022 South America report of The Lancet Countdown, supra* note 61, p. 26.

targeted, income-based transfers to vulnerable households and increased access to low carbon [energy] alternatives."[67]

3. States must replace most fossil fuel-generated power with clean energy.

Halting new fossil fuel extraction alone will not achieve the substantial reductions in GHG emissions necessary to avert the worst of the climate crisis and ensure a just transition. States will also need to implement a wide range of policies and regulations to cut emissions from the consumption of fossil fuels across many sectors, including power generation, industry, transportation, and buildings. Here, we focus on power generation because it is one of the primary sources of GHG emissions and because rapid and widespread transition to clean energy is foundational for decarbonizing other high-emitting sectors. For example, electrifying transportation vehicles and energy-intensive industrial processes such as steel production will only reduce emissions if the electricity they use is clean.[68] In addition, because renewable energy is often better positioned to provide universal, reliable, and sustainable access to energy, replacing fossil fuel burning with clean energy will also help further State development goals and progressively achieve the full realization of economic, social, cultural, and environmental rights.

a. Every State must take immediate steps to phase out existing fossil fuel-burning power plants according to their fair share.

According to the International Energy Agency, to limit warming to 1.5°C, States must reduce unabated[69] fossil fuel electricity generation by 40% by 2030 and eliminate nearly all unabated fossil fuel plants by 2050.[70] The First Global Stocktake calls on States to "[t]ransition[] away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science."[71] Although the use of some carbon capture and storage and carbon removal technologies will likely be necessary to reach net-zero, these technologies are still in a "fledgling state"[72] and are largely unproven (see Section B.3.c below), and therefore should not yet be a focus of mitigation efforts.

In countries where utilities are publicly owned or operated, governments should halt the procurement of new fossil fuel-based power generation and begin planning for the early retirement of existing infrastructure. States should deny permits for new, privately operated fossil fuel generation. Retirements should be final, without the possibility of gas or coal plants being retained as reserve sources of power.

As with phasing out fossil fuel extraction, the timeline for eliminating fossil fueled power generation should conform to a State's fair share contribution. More developed States with a

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[67] Simon Black et al., *IMF Fossil Fuel Subsidies Data*, *supra* note 60, pp. 5-6.
[68] Occo Roelofsen et al., *Plugging In: What Electrification Can Do for Industry*, McKinsey & Company (28 May 2020), https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/plugging-in-what-electrification-can-do-for-industry.
[69] Unabated fossil fuel use refers to "[c]ombustion of fossil fuels in facilities without [carbon capture and underground storage]." IEA, *Net Zero Roadmap*, *supra* note 45, p. 212.
[70] *Ibid*, p. 92.
[71] Outcome of the First Global Stocktake, *supra note 62*, para. 28(d).
[72] Caverley and Anderson, *Phaseout Pathways for Fossil Fuel Production*, supra note 46, p. 22.

higher capacity and greater responsibility must stop approving new fossil fuel burning plants now[73] and begin retiring existing plants on an expedited timeline.[74] Less-developed States should immediately begin planning the retirement of existing infrastructure and only approve new fossil fuel burning plants that are consistent with their fair share, and only after completing climate impact assessments (see Section B.4 below).

b. States must remove barriers to and promote clean energy.

To complete the energy transition, States must replace retired fossil burning power plants with renewable sources of electricity. However, an important obstacle impedes the adoption of clean power: nearly all States in the hemisphere have electricity infrastructure and regulatory frameworks that were designed specifically for fossil fuel-based energy. This gives fossil fuels an advantage because power grids are designed to deliver power whenever fuel is burned, while clean energy resources generate electricity only when and where the sun shines or the wind blows.[75] To bring on the amount of clean energy necessary for a carbon-neutral future, States must adapt the traditionally fossil fuel-based power sector by removing barriers that prevent clean energy from entering the power grid. In many cases, States should also go further by instituting policies that actively promote clean energy over fossil fuels.

Although critical parts of this transition will require investing in expensive infrastructure that will take time to build out,[76] there are many reforms States can implement now that are not economically burdensome, all of which have been adopted by at least some States in Latin America. The policies discussed below are intended only as examples of actions States can take to facilitate this transition and serve only as a starting point for identifying needed reforms—their efficacy and appropriateness will depend on the individual circumstances of each State.

Renewable Portfolio Standards: The lack of enforceable renewable energy procurement standards makes it difficult to monitor and ensure a State's progress towards a clean energy transition. Renewable portfolio standards specify the minimum share of electricity from renewable energy sources to be achieved within a set timeframe[77] and impose penalties for non-compliance.[78] These standards are "designed to increase the use of renewable energy sources for

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[73] IEA, *World Energy Outlook 2023*, p. 22 (Oct. 2023), https://iea.blob.core.windows.net/assets/42b23c45-78bc-4482-b0f9-eb826ae2da3d/WorldEnergyOutlook2023.pdf (urging "measures to ensure an orderly decline in the use of fossil fuels, including an end to new approvals of unabated coal-fired power plants.").

[74] Robert Fofrich et al., *Early Retirement of Power Plants in Climate Mitigation Scenarios*, 15 Environmental Research Letters vol. 15, p. 8 (27 Aug. 2020), https://iopscience.iop.org/article/10.1088/1748-9326/ab96d3 (concluding that "policy makers should immediately begin to phase out fossil-fired power plants by supporting low-carbon energy infrastructure while simultaneously implementing legislation that's unfavorable for continued fossil fuel use.").

[75] Noah Mitchell-Ward, *To Enable the Clean Energy Future, Electric Transmission Planning Needs an Upgrade*, Yale Environment Review (29 Mar. 2022), https://environment-review.yale.edu/enable-clean-energy-future-electric-transmission-planning-needs-upgrade.

[76] IEA, *Electricity Grids and Secure Energy Transitions*, p. 9 (2023), https://iea.blob.core.windows.net/assets/ea2ff609-8180-4312-8de9-494bcf21696d/ElectricityGridsandSecureEnergyTransitions.pdf.

[77] U.S. Energy Information Administration (U.S. EIA), *Renewable Energy Explained: Portfolio Standards*, https://www.eia.gov/energyexplained/renewable-sources/portfolio-standards.php.

[78] National Renewable Energy Laboratory, *Renewable Portfolio Standards*, https://www.nrel.gov/state-local-tribal/basics-portfolio-standards.html.

electricity generation."[79] Some Latin American States have adopted portfolio standards. For example, Chile required that 20% of all electric power withdrawn from the grid must be generated from renewable energy by 2025, a goal it has met several years ahead of schedule.[80] Mexico's Energy Transition Law requires 35% of electricity generation to come from clean energy sources by 2024.[81]

Energy Procurement: Energy procurement policies determine how electricity is generated and thus how a State will meet its renewable energy goals and the pace at which the clean energy transition will occur. States should ensure that their procurement rules accommodate and capitalize on the variability, dispersed locations, and different sizes of clean energy sources.[82] For example, when conducting auctions, Chile and Mexico task developers with identifying both the locations and technologies that will optimize the use of the grid.[83] In liberalized electricity markets, generation contracts can be awarded across various lengths of time, "allow[ing] solar and wind producers to account for intraday and seasonal variability and submit bids for the blocks for which they are most competitive."[84]

Planning for Transmission Grid Expansions: States must ensure that their electricity grids are accessible to clean energy projects and supply electricity where it is needed.[85] The traditional approach of planning generation projects without identifying how they will connect to the grid will not suit deployment of more diverse clean energy and distributed generation sources, particularly projects offshore and in remote renewables-rich areas which "may need dedicated grid development."[86] Careful planning is crucial because transmission projects can take 15 to 20 years to complete and "require[] lengthy and broad stakeholder engagement for land acquisition and compensation, as well as close coordination with … new sources of electricity generation."[87] To properly account for anticipatory investments in grid infrastructure, grid planning studies should incorporate "climate policy, linkages with the transport, heating and industrial sectors … , while also linking medium-term plans to the long-term view."[88] States must also assess the limitations of the current transmission system and determine "how to safely distribute the greater amounts of electricity generated" by clean sources as they come online in

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[79] U.S. EIA, *Renewable Energy Explained*, *supra* note 77.
[80] Ministerio de Energía, Gobierno de Chile, *Transición Energética de Chile Política Energética Nacional,* p. 23 (Feb. 2022), https://energia.gob.cl/sites/default/files/documentos/pen_2050_-_actualizado_marzo_2022_0.pdf.
[81] El Congreso General de Los Estados Unidos Mexicanos, *Ley De Transición Energética*, artículo transitorio tercero, (24 Dec. 2015), https://www.diputados.gob.mx/LeyesBiblio/pdf/LTE.pdf
[82] E3, *Scalable Markets for the Energy Transition: A Blueprint for Wholesale Electricity Market Reform*, p. 17-18, (May 2021) https://www.ethree.com/scalable-markets-for-the-energy-transition-a-new-e3-report/.
[83] IEA, *Steering Electricity Markets Towards a Rapid Decarbonization,* p. 43 (Sept. 2022), https://iea.blob.core.windows.net/assets/29f8ffbd-20c9-406b-bae6-147434aaf08d/Steeringelectricitymarketstowardsarapiddecarbonisation.pdf.
[84] Lisa Viscidi and Ariel Yepez, *Clean Energy Auctions in Latin America* p. 19, Inter-American Development Bank (2019), https://publications.iadb.org/publications/english/document/Clean_Energy_Auctions_in_Latin_America.pdf.
[85] The World Bank, *Scaling Up to Phase Down: Financing Energy Transitions in the Power Sector,* p. 12 (April 2023), https://openknowledge.worldbank.org/server/api/core/bitstreams/d0c0c6a2-f331-4bb9-b9d1-638d1f039e7d/content; Gracie Brown *et al.*, *Upgrade the Grid: Speed is of the Essence in the Energy Transition,* McKinsey & Company (Feb. 1, 2022), https://www.mckinsey.com/capabilities/operations/our-insights/global-infrastructure-initiative/voices/upgrade-the-grid-speed-is-of-the-essence-in-the-energy-transition
[86] IEA, *Electricity Grids and Secure Energy Transitions*, *supra* note 76, p. 110.
[87] The World Bank, *Scaling Up to Phase Down*, *supra* note 85, p. 12.
[88] IEA, *Electricity Grids and Secure Energy Transitions*, *supra* note 76, p. 111.

the next few decades.[89] For example, Chile's 20-year national transmission plan takes into account the government's annual 30-year energy planning process.[90]

Open Grid Access: Prohibitions or restrictions on "wheeling electricity" [91]—moving electricity from the power grid where it is generated to consumers connected to a different grid in another area—inhibit the ability of the highest-quality clean energy resources, which are often far from city centers, from participating as suppliers.[92] In electricity systems where the utility owns generation, transmission, and distribution assets, States can require utilities to grant non-utility, clean energy producers access to the grid and lower their fees for transmission. For example, even before its electricity liberalization process in 2013, Mexico had implemented a lower transmission fee for clean energy than for conventional energy sources,[93] a policy called "green wheeling."

Priority Dispatch: For an electricity system to run smoothly, electricity supply and demand must be appropriately balanced.[94] Too much power could overload the grid; too little could cause brownouts. The authority in charge of this balancing, which is either the State utility or an independent system operator, determines a "dispatch" schedule according to which different sources are activated to produce timely electricity for the grid.[95] Without rules to guide which resources to dispatch and in what order, the balancing authority has leeway to favor operating fossil fuel plants over clean energy sources to meet demand.[96] States can require transmission system operators to dispatch energy from renewable generation sources ahead of fossil fuel plants through priority dispatch rules,[97] forcing them to rely on the cleanest sources first.[98] For example, in 2012, El Salvador enacted grid access provisions giving priority dispatch

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[89] United Nations Conference on Trade and Development, *World Investment Report 2023*, pp. 171-172 (2023), https://unctad.org/system/files/official-document/wir2023_en.pdf.
[90] IEA, *Electricity Grids and Secure Energy Transitions*, *supra* note 76, p. 67.
[91] Jenny Heeter *et al.*, *Wheeling and Banking Strategies for Optimal Renewable Energy Deployment: International Experiences*, National Renewable Energy Laboratory, Technical Report NREL/TP-6A20-65660, p. 1, (Mar. 2016), https://www.nrel.gov/docs/fy16osti/65660.pdf.
[92] World Economic Forum, *Shaping the Future of Energy, Materials and Infrastructure: Accelerating Renewable Energy Corporate Power Purchase Agreements in Emerging Economies*, p.2 (August 2021), https://www3.weforum.org/docs/WEF_Renewable_Energy_Corporate_PPA_2021.pdf.
[93] Jenny Heeter *et al.*, *Wheeling and Banking Strategies for Optimal Renewable Energy Deployment*, *supra* note 91, pp. 14-15.
[94] U.S. Department of Energy, *How it Works: the Role of a Balancing Authority*, p. 1 (2023), https://www.energy.gov/sites/default/files/2023-08/Balancing%20Authority%20Backgrounder_2022-Formatted_041723_508.pdf.
[95] *Ibid*, p. 3.
[96] Rahmatallah Poudineh *et al.*, *Advancing Renewable Energy in Resource-Rich Economies of the MENA* at 24 Oxford Institute for Energy Studies (2016), https://www.jstor.org/stable/pdf/resrep30953.8.pdf?refreqid=fastly-default%3A342c92029c5da42c06d9bb7dae8c4872&ab_segments=&origin=&initiator=&acceptTC=1.
[97] *See, e.g.*, Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the Internal Market for Electricity, Article 2(20).
[98] The European Wind Energy Association, *EWEA Position Paper on Priority Dispatch of Wind Power*, p. 2 (2014), https://www.ewea.org/fileadmin/files/library/publications/position-papers/EWEA_position_on_priority_dispatch.pdf.

to renewable electricity, such as solar and wind power.[99] In November 2023, Argentina awarded 1.9GW of transmission priority dispatch to twenty-three renewable energy projects.[100]

Import Tax Exemptions: High import taxes on renewable energy components can hinder the development of the clean energy sector by increasing the cost of clean energy projects. Among other fiscal incentives, States can remove this barrier through tax exemptions. Brazil, for example, adopted a resolution exempting photovoltaic solar modules from its import tax in 2021.[101] The Dominican Republic similarly exempts equipment, machinery, and accessories necessary for clean energy projects from import taxes.[102]

Distributed Generation: Complementing utility-scale clean energy sources with distributed generation—technologies that generate electricity at or near the location where it will be used—"can help support delivery of clean, reliable power to additional customers."[103] A residential solar system often generates more electricity during the day than the home uses, and this clean energy surplus can be fed into the grid to help meet national energy demand.[104] Providing compensation for the electricity supplied can incentivize adoption of distributed energy systems. Such compensation has contributed to rapid expansion of clean energy capacity in El Salvador and Brazil.[105] As of 2018, seventeen Latin American States have adopted laws implementing compensation schemes.[106]

Off-Grid Solutions: Across Latin America and the Caribbean, more than 18.1 million people in rural areas lack access to electricity.[107] Local small-scale clean energy projects can provide these communities with affordable electricity without the high costs of connecting them

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[99] Santiago Enriquez *et al.*, USAID, *The Clean Energy Market in El Salvador,* p. 9 (7 Aug. 2018), https://pdf.usaid.gov/pdf_docs/PA00T84M.pdf.
[100] BNamericas, *Argentina Awards 1.9GW Priority Dispatch Capacity, Grid Work Rights* (2 Nov. 2023), https://www.bnamericas.com/en/news/argentina-awards-19gw-priority-dispatch-capacity-grid-work-rights.
[101] Luiz Henrique, *Renewable Energy Source and Tax Benefits in Brazil*, Gescon (27 Sept. 2022), https://gesconconsultoria.com.br/en/2022/09/renewable-energy-sources-and-tax-benefits-in-brazil/.
[102] Squire Patton Boggs, *Dominican Republic's Law No. 57-07 and it's Incentives for the Development of Renewable Sources of Energy*, Latin America Legal (17, Jan. 2018), https://www.latlegal.com/2018/01/dominican-republics-law-no-57-07-and-its-incentives-for-the-development-of-renewable-sources-of-energy/#_ftn3.
[103] U.S. EPA, *Distributed Generation of Electricity and its Environmental Impacts*, https://www.epa.gov/energy/distributed-generation-electricity-and-its-environmental-impacts**;** see also, IEA, *Unlocking the Potential of Distributed Energy Resources* (May 2022), https://iea.blob.core.windows.net/assets/3520710c-c828-4001-911c-ae78b645ce67/UnlockingthePotentialofDERs_Powersystemopportunitiesandbestpractices.pdf.
[104] States typically compensate consumers for excess energy supplied to the grid through net metering policies. Solar Energy Industries Association, *Net Metering*, https://www.seia.org/initiatives/net-metering.
[105] Since implementing such policies in 2013, El Salvador has installed almost 300 MW of clean distributed generation, totaling close to 15% of total national installed capacity. UNEP, *New Financial Mechanisms for Clean Energy Investments in Latin America*, p.29 (2023), https://wedocs.unep.org/bitstream/handle/20.500.11822/42471/Energy_investments_Latin_America.pdf?sequence=1&isAllowed=y. Similarly, after Brazil amended its net metering policy in 2015 to increase the maximum allowed capacity to 5 MW for clean sources other than small hydropower units, it experienced a dramatic increase in distributed generation, with 19,000 MW of capacity installed as of 2023. U.S. EIA, *Solar Distributed Generation Capacity in Brazil is Growing Rapidly* (18 Apr. 2023), https://www.eia.gov/todayinenergy/detail.php?id=56200.
[106] Alliance for Rural Electrification, *Status of the Off-Grid Renewable Energy Market in Latin America & the Caribbean*, p. 31 (Aug. 2021), https://www.wame2030.org/files/catalogue/2021/11/000Status_of_the_off_grid_renewable_energy_market_in_Latin_America___the_Caribbean_0_A13J7cQ.pdf.
[107] *Ibid., pp.* 7.

to the national power grid and without generating new greenhouse gas emissions.[108] However, the absence of clear and comprehensive regulations can impede adoption of off-grid clean energy systems.[109] To facilitate off-grid developments, States can streamline and reduce the licensing requirements for businesses providing off-grid clean energy to these areas.[110] In addition, national plans and strategies can set objectives and annual targets for renewable energy capacity, including for off-grid systems.[111] For example, Peru has made energy access a priority and has adopted regulations to facilitate off-grid electrification.[112] The political backing of the government—including permission to electrify zones excluded from the National Rural Electrification Plan—helped provide off-grid solar systems for over 300 Peruvian indigenous and rural communities.[113]

c. States must avoid "false solutions" that deepen dependency on fossil fuels.

As States transition to clean energy, they must avoid promoting "false solutions"—practices promoted as climate solutions but that actually allow the burning of fossil fuels to continue in lieu of building more clean energy capacity. In addition to not reducing emissions as effectively as clean energy alternatives, these practices are often used to justify extending the lifetimes of existing fossil fuel projects or investing in new ones. They thus deepen dependency on fossil fuels and divert much needed resources from the clean energy transition.

This section describes some common false solutions. While some of these technologies, such as green hydrogen and carbon capture and storage, may be appropriate in limited situations, they become false solutions if deployed indiscriminately and in place of clean energy. To identify potential false solutions, State authorities conduct proper climate assessments, with active and fully informed public participation (see Section B.4 below), to determine whether proposed projects will actually mitigate climate change.

Hydrogen: A Real Climate Solution only if Green and Used in Hard-to-Abate Sectors. The fossil fuel industry often touts hydrogen as a climate friendly fuel because the main byproduct of burning it is water.[114] However, most hydrogen is created through energy intensive industrial processes that can make the total life-cycle emissions of hydrogen greater than those of fossil fuels. A recent study found that the GHG emissions from producing electricity using fossil fuel-based hydrogen are actually greater than generating the same electricity by burning methane ("natural") gas, diesel oil, or coal directly.[115] Even so-called "green" hydrogen (hydrogen

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[108] USAID, *When are Renewable Energy Mini-Grids More Cost-Effective Than Other Options?*, https://www.usaid.gov/energy/mini-grids/economics/cost-effectiveness.
[109] Marc Jeuland *et al.*, *Barriers to Off-Grid Energy Development: Evidence from a Comparative Survey of Private Sector Energy Service Providers in Eastern Africa*, 216 Renewable Energy vol. 216 (Nov. 2023), https://doi.org/10.1016/j.renene.2023.119098.
[110] Alliance for Rural Electrification, *Status of the Off-Grid Renewable Energy Market,* p. 39.
[111] *Ibid*.
[112] Andrea A. Eras-Almeida et al., *Lessons Learned from Rural Electrification Experiences with Third Generation Solar Home Systems in Latin America: Case Studies in Peru, Mexico, and Bolivia*, Sustainability vol. 11(24), pp. 6-7 (13, Dec. 2019), https://www.mdpi.com/2071-1050/11/24/7139.
[113] Acciona.org Peru, ACCIONA.ORG IN PERU, https://www.acciona.org/peru/activity/?_adin=02021864894.
[114] Hydrogen is called "blue" hydrogen when generated from natural gas and "brown" when generated from coal. Robert W. Howarth and Mark Z. Jacobson, *How Green is Blue Hydrogen?* Energy Science & Engineering vol. 9(10), p. 1677 (2021), https://onlinelibrary.wiley.com/doi/full/10.1002/ese3.956.
[115] *Ibid.*

produced using clean sources of energy) is a false solution where solar or wind can supply electricity directly, because the electricity required to convert hydrogen to useful energy makes those sources two to three times more efficient than hydrogen.[116] Green hydrogen should thus only be used to mitigate emissions "when there are no practical alternatives"[117] and in "harder-to-decarbonize sectors such as aviation, shipping and heavy industry sectors, where direct electrification is nearly impossible."[118] Green hydrogen should also replace fossil fuel-based hydrogen. Chile, for example, aims to replace dirty hydrogen produced from methane with green hydrogen in fertilizer production and industries such as the petrochemical industry.[119]

Methane Gas: Higher Climate Risks than Coal Over a 20-Year Timeframe. Proponents of methane gas, commonly referred to as "natural" gas,[120] have long argued for its role in the clean energy transition as a replacement for supposedly dirtier fossil fuels like coal and oil.[121] This justification fails, however, when methane's life-cycle emissions are considered.

Methane is a potent greenhouse gas with a global warming potential over 82 times that of CO_2 when measured over a 20-year period.[122] Producing and burning methane inevitably leads to unintentional releases of the gas, ranging from small leaks from normal operations, routine maintenance, or malfunctioning equipment,[123] to catastrophic releases, as when a ruptured pipe in California in 2016 released the CO_2 equivalent of pollution from 600,000 cars.[124] The gas industry also releases methane intentionally, through venting and flaring that have recently been shown to release five times more methane than previously thought.[125]

Several studies have concluded that gas production can be more carbon-intensive than coal production when accounting for leakages.[126] Because of methane gas's lifecycle climate

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[116] IRENA, *World Energy Transitions Outlook 2023: 1.5°C Pathway* p. 76, (June 2023) https://www.irena.org/Publications/2023/Jun/World-Energy-Transitions-Outlook-2023.
[117] *Ibid.*
[118] *Ibid.*, p. 141.
[119] Ministerio de Energía, Gobierno de Chile, *National Green Hydrogen Strategy*, p. 7 (Nov. 2020), https://energia.gob.cl/sites/default/files/national_green_hydrogen_strategy_-_chile.pdf.
[120] The gas industry refers to methane gas as "natural gas" even though it is composed of 70-90% methane. Karine Lacroix et al., *Should it be called "natural gas" or "methane"?*, Yale Program on Climate Change Communication (1 Dec. 2020), https://climatecommunication.yale.edu/publications/should-it-be-called-natural-gas-or-methane/.
[121] UNEP, *Is Natural Gas Really the Bridge Fuel the World Needs?* (12 Jan. 2023), https://www.unep.org/news-and-stories/story/natural-gas-really-bridge-fuel-world-needs.
[122] IPCC, *Climate Change 2021: The Physical Science Basis*, Working Group I Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, p. 1017 (2021) https://report.ipcc.ch/ar6/wg1/IPCC_AR6_WGI_FullReport.pdf.
[123] U.S. EPA, *Primary Sources of Methane Emissions: Natural Gas Systems*, https://www.epa.gov/natural-gas-star-program/primary-sources-methane-emissions; Deborah Gordon and Shannon Hughes, *Reality Check: Natural Gas's True Climate Risk*, Rocky Mountain Institute (July 13, 2023), https://rmi.org/reality-check-natural-gas-true-climate-risk/.
[124] Oliver Milman, *LA Gas Leak: Worst in US History Spewed as Much Pollution as 600,000 Cars*, The Guardian (26 Feb. 2016), https://www.theguardian.com/environment/2016/feb/26/los-angeles-aliso-canyon-gas-leak-methane-largest-us-history.
[125] Genevieve Plant et al., *Inefficient and unlit natural gas flares both emit large quantities of methane*, Science vol. 377, 1566-1571 (2022) https://doi.org/10.1126/science.abq0385.
[126] *See, e.g.*, *Evaluating Net Life-Cycle Greenhouse Gas Emissions Intensities from Gas and Coal at Varying Methane Leakage Rates*, Environmental Research Letters (17 July 2023), https://iopscience.iop.org/article/10.1088/1748-9326/ace3db (finding that GHG emissions from gas production were

effects, a 2020 Inter-American Development Bank study warned that building the fossil fuel power plants currently planned and announced in Latin America and the Caribbean, most of which are natural gas powered, "would make[the climate situation] worse, bringing committed emissions 150 percent greater than what is consistent with [the 1.5°C] target."[127]

Carbon Capture and Storage: Expensive and unproven. Capturing CO_2 released from burning fossil fuels and storing it, often by injecting it into the ground, has been proposed to "decarbonize" fossil fuel plants and justify extending their lives.[128] However, carbon capture is not currently economically feasible or effective at reducing greenhouse gas emissions, [129] and it is unlikely to be effective in the timescales needed.[130] Capturing and storing just 14-20% of total CO_2 emissions would require doubling or even quadrupling the volume of CO_2 captured and stored by 2050, which would be "an exceptionally challenging task, similar in scale to wartime mobilization."[131] Moreover, large-scale transport of captured CO_2 would require extensive and dedicated pipeline networks that would likely have significant environmental impacts, including the risks associated with pipeline failure.[132] CO_2 leaks can also contaminate important aquifers as CO_2 migrates through fractured or ineffective caprock, along fault lines, or through porous geological strata.[133] These impacts and uncertainties could all be avoided by redirecting resources from carbon capture to building clean, renewable energy.

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comparable to those from coal when as little as 0.2% of gas leaks along the supply chain). In the United States, it has been estimated that 2.3% of gas leaks during production and transmission, over 10 times higher than what is needed for gas to be comparable to coal. *See*, Alvarez, Ramón A., et al., *Assessment of Methane Emissions from the US Oil and Gas Supply Chain*, Science 361.6398 (2018): 186-188, https://www.science.org/doi/full/10.1126/science.aar7204; *see also* Ziaochun Zhang *et al.*, *Key Factors for Assessing Climate Benefits of Natural Gas Versus Coal Electricity Generation*, Environmental Research Letters (2014), https://iopscience.iop.org/article/10.1088/1748-9326/9/11/114022/pdf ("[W]ithout carbon capture and storage natural gas power plants cannot achieve the deep reductions that would be required to avoid substantial contribution to additional global warming.").

[127] Inter-American Development Bank and International Labor Organization, *Jobs in a Net-Zero Emissions Future in Latin America and the Caribbean*, p.38 (2020), https://publications.iadb.org/publications/english/document/Jobs-in-a-Net-Zero-Emissions-Future-in-Latin-America-and-the-Caribbean.pdf.

[128] Institute for Energy Economics and Financial Analysis, *The Carbon Capture Crux: Lessons Learned*, p. 1 (Sept. 2022), https://ieefa.org/media/3007/download?attachment.

[129] See, IPCC, *Climate Change 2022: Mitigation of Climate Change*, Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, p. 642, (2022) https://www.ipcc.ch/report/ar6/wg3/ ("CO2 capture costs present a key challenge… The capital cost of a coal or gas electricity generation facility with CCS is almost double one without CCS.").

[130] *See* The Royal Society, *Locked Away: Geological Carbon Storage Policy Briefing*, p. 4 (2022), https://royalsociety.org/-/media/policy/projects/geological-carbon-storage/Geological-Carbon-Storage_briefing.pdf ("Global rates of CCS deployment are significantly below those anticipated to be needed to limit global warming to 1.5°C or 2°C.").

[131] N. Mac Dowell et al., *The Role of CO2 Capture and Utilization in Mitigating Climate Change*, Nature Climate Change vol 7, p. 244 (2017), https://www.nature.com/articles/nclimate3231

[132] *See*, A. Brown et al, *IMPACTS: Framework for Risk Assessment of CO2 Transport and Storage Infrastructure*, 114 Energy Procedia vol. 114, 6503 (2017) https://doi.org/10.1016/j.egypro.2017.03.1786; *see also*, Congressional Research Service, *Carbon Dioxide Pipelines: Safety Issues* (2022), https://crsreports.congress.gov/product/pdf/IN/IN11944 ("CO2 pipelines pose a public safety risk, as demonstrated by a 2020 CO2 pipeline rupture in Satartia, MS, which led to a local evacuation and caused 45 people to be hospitalized");

[133] Jinfeng Ma et al., *Carbon Capture and Storage: History and the Road Ahead*, Engineering vol. 14, pp. 39-40 (2022), https://www.sciencedirect.com/science/article/pii/S2095809922001357; *see also* IPCC, *Carbon Dioxide Capture and Storage*, pp. 187-189 (2005), https://www.ipcc.ch/site/assets/uploads/2018/03/srccs_wholereport-1.pdf.

d. States must ensure human rights for all communities affected by renewable energy projects.

Although a rapid clean energy transition is essential to protecting human rights threatened by climate change, it is essential to ensure that the transition itself does not threaten the human rights of local communities. This is of particular concern with respect to the mining of critical minerals—the raw materials needed for electric vehicle motors, wind turbines, and batteries.[134] Led by Chile, Peru, and Mexico, Latin America produces 40% of the world's copper.[135] The region also supplies 35% of the world's lithium, with Chile and Argentina being the second and fourth largest global producers.[136] Moreover, "Latin America has significant potential in graphite, nickel, manganese and rare earth elements production."[137] Although mining can provide employment and financial opportunities for local communities and States, it may also result in habitat loss, water contamination, displacement of livelihoods, and cultural harms.[138] Governments also frequently fail to properly consult or obtain the consent of Indigenous communities affected by these projects.[139]

To protect communities from these risks, States must implement the same human rights safeguards for renewable energy projects that are required for any activity with the potential to cause significant environmental damage.[140] Principal among these is requiring prior environmental impact assessments that can reveal the other, non-climate impacts of renewable energy activities[141] and ensuring prior consultation with any interested Indigenous Peoples with the goal of obtaining their free, prior, and informed consent.[142]

For all communities, this Court has also recognized that the American Convention requires States "to ensure the participation of persons subject to their jurisdiction in decision-making and policies that could affect the environment," and that when doing so "States must have previously ensured access to the necessary information."[143] Guarantees for public participation and access to information for environmental decision-making are also enshrined in other treaties such as the Regional Agreement on Access to Information, Public Participation and

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[134] Alejandra Bernal *et al.*, IEA, *Latin America's Opportunity in Critical Minerals for the Clean Energy Transition*, (7 Apr. 2023), https://www.iea.org/commentaries/latin-america-s-opportunity-in-critical-minerals-for-the-clean-energy-transition.
[135] *Ibid.*
[136] *Ibid.*
[137] *Ibid.*
[138] OECD, *Responsible Business Conduct in the Extractive and Minerals Sector in Latin America and the Caribbean*, p. 9 (2022), https://mneguidelines.oecd.org/responsible-business-conduct-in-the-extractive-and-minerals-sector-in-latin-america-and-the-caribbean.pdf. ("…extractive activities in the region continue to cause environmental and social impacts, including cases of water, air and soil pollution; deforestation; and loss of biodiversity. Such environmental impacts have in turn posed risks to the livelihoods and health of communities, including Afro-descendants and Indigenous peoples living in rural and remote areas.")
[139] Caitlin Purdy and Rodrigo Castillo, *The Future of Mining in Latin America*, Leveraging Transparency to Reduce Corruption (July 2022), p. 8, https://www.brookings.edu/wp-content/uploads/2022/07/GS_07072022_LTRC-Future-Mining-Latin-America.pdf.
[140] IACtHR, OC-23/17, paras. 141-174.
[141] IACtHR, OC-23/17, paras. 156-170.
[142] IACtHR, *Case of the Saramaka People vs. Surinam*, Judgment on Preliminary Objections, Merits, Reparations, and Costs, Series C, No 172, paras. 133-137 (28 Nov. 2007).
[143] IACtHR, OC-23/17, para. 231.

Justice in Environmental Matters in Latin America and the Caribbean ("Escazú Agreement")[144] and multiple instruments of international environmental law.[145] These opportunities for participation must exist "from the initial stages of the decision-making process"[146] and "must provide members of the public with an adequate opportunity to express their views."[147]

e. For all decisions regarding energy policy that will create new sources of climate pollution, States must provide opportunities for public participation and access to information.

Opportunities for meaningful public participation in and access to information about decisions affecting carbon emissions—such as integrated resource plans or public energy procurement plans—are crucial for aligning such decisions with the goal of ensuring a just transition to clean energy. Given the outsized effect energy policy can have on a country's emissions pathways and the future of the climate crisis, States must also guarantee opportunities for public participation and access to information during the policy-making process. Such opportunities allow for public involvement at the initial stages of decision-making, when it may be easier to replace fossil fuels with low-carbon alternatives. As a result, the public is able "to require accountability from public authorities when taking decisions,"[148] and to make governments "respond promptly to public concerns and demands, build consensus, and secure increased acceptance of and compliance with environmental decisions."[149]

Unfortunately, States frequently fail to provide mechanisms for participating and access information before approving energy-related plans, regulations, or legislation. Instead, many governments only begin to allow such access to information at the project approval stage, when many key decisions regarding energy procurement, siting, interconnection with the existing energy grid, and other factors are already set and may be impossible to alter.

4. <u>States must conduct climate assessments before new sources of climate pollution, including fossil fuel projects, or decisions affecting energy policy.</u>

Climate assessments are crucial measures for States to fulfill their obligations to promote a just transition to clean energy. These tools allow authorities and civil society to identify sources of climate pollution early in the project development stage and seek carbon-free alternatives or, where no such alternatives exist, adopt appropriate measures to avoid or mitigate GHG emissions. In addition, many international experts consider the inclusion of climate assessments to be a best practice for any environmental assessment process.[150]

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[144] Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean arts. 6-7 ("Escazú Agreement").
[145] See, e.g., UNFCCC, arts. 6(a)(ii)-(iii); Rio Declaration, Principle 10.
[146] IACtHR, OC-23/17, para. 232.
[147] Escazú Agreement, art. 7.7.
[148] IACtHR, OC-23/17, para. 226.
[149] IACtHR, OC-23/17, para. 228.
[150] *See, e.g.*, European Commission, *Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment* (2013), https://op.europa.eu/en/publication-detail/-/publication/3ed0e578-7f24-4073-81c9-

Climate assessments are part of a State's obligation to guarantee environmental impact assessments when an activity "involves a risk of significant damage."[151] States similarly have an obligation under the Paris Agreement to report on any "sources" of anthropogenic GHG emissions.[152] Because any new GHG emissions contribute to the significant damage of the ongoing climate crisis, any activity that is a non-negligible source of emissions should be considered a "risk of significant damage" for triggering an environmental assessment.[153] At a minimum, this would require climate assessments for any new fossil fuel projects and activities related to the four main sectors outlined in the IPCC guidelines (energy, industrial use and processes, agriculture, forestry and other land use, and waste).[154] Ideally, climate assessments should be included in all environmental impact assessments, as many activities will generate some GHG emissions either directly or indirectly.

For climate assessments to properly identify, assess, and mitigate climate impacts, States must ensure that such assessments apply the best available science[155] and adhere to the minimum requirements in this Court's Advisory Opinion OC-23/17[156] and in international bast practices,[157] including the following minimum standards:

a. Climate assessments must account for total life-cycle emissions, which include all direct and indirect (so-called "scope 3") emissions.

Environmental assessments must estimate a project's total, cumulative impact, including the impact from "both the main project and associated projects" as well as "other existing projects."[158] In the context of a climate assessment, this requires a complete accounting of a project's cumulative GHG emissions, that is, the total emissions that would result from bringing a proposed project online. This should include not only the "direct" emissions from a project, such as the CO_2 released from burning coal in a proposed plant or fugitive methane emissions from a new gas pipeline, but also the "indirect" emissions produced elsewhere but related to the proposed project.

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f279c6d4b3cf/language-en; International Association for Impact Assessment (IAIA), *International Best Practice Principles, Climate Change in Impact Assessment*, Special Publication Series No. 8 (March 2018), https://www.iaia.org/uploads/pdf/SP8%20Climate%20Change%202018.pdf; Institute of Environmental Management and Assessment (IEMA), *Environmental Impact Assessment Guide to Assessing Greenhouse Gas Emissions and Evaluating their Significance* (2017), https://www.iema.net/preview-document/assessing-greenhouse-gas-emissions-and-evaluating-their-significance; WRI, *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition*, https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf.

[151] IACtHR, OC-23/17, para. 160.

[152] Paris Agreement, art. 13(7)(a).

[153] See IEMA, *Environmental Impact Assessment Guide to Assessing Greenhouse Gas Emissions and Evaluating their Significance*, *supra* note 150, p. 14 ("GHG emissions have a combined environmental effect that is approaching a scientifically defined environmental limit, as such any GHG emissions or reductions from a project might be considered to be significant.").

[154] *See* IPCC, AR6 Summary for Policymakers, *supra* note 2, pp. 28-30.

[155] Paris Agreement, art. 4.1.

[156] IACtHR, OC-23/17, paras. 162-170.

[157] IACtHR, OC-23/17, para. 161 ("The Court has already indicated that environmental impact assessments must be made pursuant to the relevant international standards and best practice and has indicated certain conditions that environmental impact assessments must meet.").

[158] IACtHR, OC-23/17, para. 165.

These indirect emissions, also referred to as "scope 3" emissions,[159] include both upstream emissions (e.g., fugitive emissions from the production and transport of fuel to be burned by a proposed power plant) and downstream emissions (e.g., emissions from burning fuel produced by a proposed oil well or coal mine but used by others). Ideally, indirect emissions should be analyzed through a life-cycle assessment—often referred to as a "cradle-to-grave" approach—which "evaluates and reports the full life-cycle GHG emissions associated with the raw materials extraction, manufacturing or processing, transportation, use, and end-of-life management of a good or service."[160] Such assessments, considered a best practice for impact evaluations,[161] offer the benefit of providing "a comprehensive view of the environmental aspects of the product or process and a more accurate picture of the true environmental trade-offs in product and process selection."[162]

Like in any cumulative impact analysis, assessing indirect and scope 3 emissions accounts for gases emitted by other projects. However, some of these activities are not as closely "associated" with a fossil fuel project as with a standard cumulative impact analysis and may require assessing activities at great distances from the main project, including in other countries to which fossil fuels will be exported. Because new sources of climate pollution contribute equally to climate change no matter where they occur, assessing these indirect emissions is necessary to ensure a complete picture of a project's real effect on climate change. For this reason, many international standards and best practices urge including these indirect emissions in any climate assessment.[163]

Although indirect emissions are excluded from national inventories to avoid double-counting of emissions globally, these same concerns are not relevant in the impact assessment process. This is because the goals of an impact assessment for an individual project are very different from those of a national emissions inventory. While an inventory seeks "to establish baselines, track GHG emissions, and measure reductions over time,"[164] the impact assessment evaluates the additional emissions a new project will cause and identifies a set of alternatives to mitigate those.[165] Frequently, choices in alternative designs—ones that use raw materials with

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[159] WRI, *The Greenhouse Gas Protocol*, *supra* note 150, p. 25.
[160] EPA, *Life-Cycle GHG Accounting Versus GHG Emission Inventories*, p. 1 (2016), https://www.epa.gov/sites/default/files/2016-03/documents/life-cycle-ghg-accounting-versus-ghg-emission-inventories10-28-10.pdf.
[161] UNEP, Life Cycle Initiative, *Paris Agreement, Sustainable Development Goals and Life Cycle Thinking* (11 Jan. 2016), https://www.lifecycleinitiative.org/paris-agreement-sustainable-development-goals-life-cycle-thinking/; EPA, *Life Cycle Assessment: Principles and Practice*, EPA/600/R-06/060, p. 3 (May 2006), https://nepis.epa.gov/Exe/ZyPDF.cgi/P1000L86.PDF?Dockey=P1000L86.PDF; United Nations Economic Commission for Europe, *Carbon Neutrality in the UNECE Region: Integrated Life-cycle Assessment of Electricity Sources*, p. 9 (2021), https://unece.org/sites/default/files/2022-04/LCA_3_FINAL%20March%202022.pdf.
[162] EPA, *Life Cycle Assessment: Principles and Practice*, *supra* note 161, p. 1.
[163] *See, e.g.*, United Nations Economic Commission for Europe, *Carbon Neutrality in the UNECE Region*, *supra* note 161, p. 9; IEMA, *Environmental Impact Assessment Guide to: Assessing Greenhouse Gas Emissions and Evaluating their Significance*, *supra* note 150, p. 14; IAIA, *International Best Practice Principles*, *supra* note 150, p. 2.
[164] EPA, *Life-Cycle GHG Accounting Versus GHG Emission Inventories*, *supra* note 160, p. 1.
[165] The UNEP identifies the purpose of an EIA to be the determination of "how the environment is expected to change if certain alternative actions are implemented and advice on how best to manage environmental changes if one alternative is selected and implemented." UNEP, *Environmental Impact Assessment and Strategic*

more or less GHG intensity, for example—can produce large effects on a project's indirect emissions. In fact, "[s]cope 3 emissions can represent the largest source of emissions for companies and present the most significant opportunities to influence GHG reductions."[166] If assessments do not account for indirect emissions, States miss important opportunities to reduce new sources of climate pollution.[167]

b. Climate assessments must analyze whether the project is compatible with a country's fair share contribution.

This Court has determined that "[d]uring the process for approval of an environmental impact assessment, the State must analyze whether execution of the project is compatible with its international obligations."[168] As part of this process, States must analyze whether the emissions generated by a new project are compatible with the right to a healthy environment as well as their international commitments to reduce emissions. International best practices on climate assessments also include setting mitigation objectives for emissions using "national or relevant sectoral climate change plans in which objectives for GHG emissions have been set" such as the nationally determined contributions through the Paris Agreement.[169] At a minimum, the assessment must consider whether the project is compatible with a low-carbon future pathway in which a State limits its emissions to its fair share, as described in Section A.1 above, which is consistent both with the obligations under the American Convention and the principle of common but differentiated responsibilities and respective capabilities.

Evidence that a project would risk pushing a State over its nationally determined contributions (NDC) under the Paris Agreement or other international climate commitments would be conclusive that a project fails to meet the State's obligations under the American Convention. However, even when a project is within limits set in a State's NDC, it still may not be consistent with a State's human rights obligations. This would be the case where a State's NDC is not adequate to achieve its fair share of GHG reductions, particularly when that goal does not reflect the State's "highest possible ambition" or a progression beyond prior commitments as required under the Paris Agreement.[170] This may also be the case if the full lifespan of the proposed activity extends beyond the current NDC. Many fossil fuel projects and other carbon intensive activities typically have lifespans that extend 30 years or more into the

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Environmental Assessment: Towards an Integrated Approach, p. 6 (2004), https://wedocs.unep.org/bitstream/handle/20.500.11822/8753/Environmental_impact_assessment.pdf?sequence=3&amp%3BisAllowed=.

[166] WRI, *Corporate Value Chain (Scope 3) Accounting and Reporting Standard: Supplement to the GHG Protocol Corporate Accounting and Reporting Standard*, p. 5 (3 Oct. 2011), https://files.wri.org/d8/s3fs-public/pdf/ghgp_corporate_value_chain_scope_3_standard.pdf.

[167] *See* WRI, *The Greenhouse Gas Protocol*, *supra* note 150, p. 27; *see also* U.S. EPA, *Life Cycle Assessment: Principles and Practice*, *supra* note 161, p. 3 ("If an LCA [life-cycle assessment] were not performed, the transfer might not be recognized and properly included in the analysis because it is outside of the typical scope or focus of product selection processes.").

[168] IACtHR, OC-23/17, para. 164.

[169] Some international best practices recommend that climate assessments set mitigation objectives for emissions using "national or relevant sectoral climate change plans in which objectives for GHG emissions have been set" such as those that are "the result of commitments made in the 2015 Paris Declaration". IAIA, *International Best Practice Principles*, *supra* note 150, p. 2.

[170] Paris Agreement, art. 4(3).

future,[171] well past the 2050 deadline to reach global net-zero emissions.[172] Therefore, States should also ensure that the project is compatible with a fair share that includes future emissions cuts greater than those required by current NDCs, so the State is still able to progressively reach its "highest possible ambition."[173]

c. States must assess all feasible alternatives and reject fossil fuel proposals where a clean energy project could bring similar benefits and avoid GHG emissions.

The duty to progressively fulfil economic, social, cultural, and environmental rights includes an "obligation of non-retrogressivity" toward these rights.[174] The UN High Commissioner for Human Rights has noted that this "implies avoiding the imposition of retrogressive measures that would diminish or endanger the realization of the rights guaranteed by the [International] Covenant [on Economic, Social, and Cultural Rights]."[175] Every additional carbon-intensive, fossil fuel project will make it harder for States to reach the goal of net-zero emission by 2050 necessary for a livable future. Therefore, approving any such project when reasonable renewable alternatives exist would be a retrogressive measure that sets the State back in fulfilling its obligation to ensure human rights in the face of climate change.

A retrogressive measure would only be compatible with the American Convention if "justified by strong reasons."[176] For such a justification, "a State has to demonstrate that it adopted the measure only after carefully considering all possible options and available alternatives, and assessing the probable impact and its necessity in relation to its maximum available resources."[177] The analysis of alternatives is also an international best practice and guiding principle for environmental assessments according to the United Nations Environment Programme (UNEP) and other international institutions.[178] In the context of approving fossil

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[171] Oxford Sustainable Finance Group, *Implications of the International Energy Agency Net Zero Emissions by 2050 Scenario for Net Zero Committed Financial Institutions*, p. 5 (2022), https://www.smithschool.ox.ac.uk/sites/default/files/2022-03/Implications-of-the-International-Energy-Agency-Net-Zero.pdf.
[172] IPCC, AR6 Summary for Policymakers, *supra* note 2, p. 20.
[173] Paris Agreement, art. 4(3).
[174] IACtHR, *Case of Poblete Vilches et al. v. Chile*, Judgement on Merits, Reparations and Costs, 8 March 2018, Series C No. 349, para. 104.
[175] UN Economic and Social Council, *Report of the United Nations High Commissioner for Human Rights*, State obligations under the International Covenant on Economic, Social and Cultural Rights with regard to maximum available resources, para. 23, E/2017/70 (16 May 2017), https://documents-dds-ny.un.org/doc/UNDOC/GEN/G17/119/04/PDF/G1711904.pdf?OpenElement.
[176] IACtHR, *Case of Acevedo Buendía et al. v. Peru*, Judgement on Preliminary Exceptions, Merits, Reparations, and Costs, 1 July 2009, Series C No. 198, para. 103.
[177] UN Economic and Social Council, *Report of the United Nations High Commissioner for Human Rights*, *supra* note 175, para. 24; *see also* IACtHR, *Case of Acevedo Buendía et al. v. Peru*, *supra* note 176, para. 103; UN Committee on Economic, Social and Cultural Rights, General Comment No. 3: The nature of States parties' obligations (art.2, para. 1 of the Covenant), U.N. Doc. E/1991/23, Fifth Period of Sessions (1990), para. 9.
[178] UNEP, *Environmental Impact Assessment and Strategic Environmental Assessment*, *supra* note 165, p. 41 ("EIA should include an analysis of feasible alternatives to the proposed action. The process should be applied early in project development at a stage when these alternatives are still practicable."); *see also* IAIA, *Principles of Environmental Impact Assessment Best Practice* (1999) https://www.iaia.org/uploads/pdf/Principles%20of%20IA%2019.pdf ("Specifically the EIA process should provide for: … Examination of alternatives - to establish the preferred or most environmentally sound and benign option for achieving proposal objectives.").

fuel projects, this requires that States first assess all feasible, renewable alternatives and compare their life-cycle GHG emissions along with other relevant factors.

After a full analysis of alternatives, a State must reject any fossil fuel project where a clean energy alternative could bring similar benefits but avoid or reduce total lifecycle GHG emissions. To do otherwise would permit the additional environmental, social, and economic harms resulting from avoidable GHG emissions without being "fully justified by reference to the totality of the rights" protected under article 26 of the American Convention.[179]

If no feasible low-carbon or renewable alternatives exist, States should still impose conditions on fossil fuel projects to mitigation GHG emissions. Such measures should "start with first avoiding or reducing emissions where practical, before suggesting offset or sequester strategies."[180] Although fossil fuel promoters often allege that carbon-intensive activities can be made "net-zero" or "carbon-neutral" by using offsets or carbon sequestration techniques, these options should only be used as a last resort where avoidance or mitigation are not feasible. Many claims of carbon neutrality rely on unproven carbon capture and storage technologies, such as those described as "false solutions" in Section B.2.c above, or on difficult-to-verify-offsets through unrelated projects. While the effectiveness of such techniques is still highly doubtful,[181] the gross addition of GHG emissions from fossil fuels is quite certain.

d. Climate assessments must analyze how the worsening climate crisis will impact the project.

Because "[n]early all [project] proposals will in the long run be sensitive to climate variables and therefore be affected by and vulnerable to climate change,"[182] environmental assessments must integrate climate change from the outset.[183] In doing so, the assessment must not only determine the project's potential contribution to climate change, but also how the worsening effects of the climate crisis will impact the project. This requires two separate analyses: one on the project's risks or vulnerability to future changes in the climate, and another on how the climate crisis may exacerbate the project's impact on the environment.[184] This latter analysis is particularly important for understanding a project's full potential impacts, and should include any synergistic impacts (i.e., multiplicative effects)[185] with the worsening climate crisis. In this sense, assessments should clearly identify "how the baseline environment will be affected

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[179] IACtHR, *Case of Acevedo Buendía et al. v. Peru*, *supra* note 176, para. 103.
[180] IEMA, *Environmental Impact Assessment Guide to: Assessing Greenhouse Gas Emissions and Evaluating their Significance*, *supra* note 150, p. 17; *see also*, UNEP, *Environmental Impact Assessment and Strategic Environmental Assessment*, *supra* note 165, p. 55 ("[T]he highest priority given to preventing or avoiding adverse impacts, then minimizing or reducing remaining impacts to 'as low as practicable' levels and finally offsetting residual impacts through rehabilitation and compensation.").
[181] *See* discussion in Section B.2.c above.
[182] IAIA, *International Best Practice Principles*, *supra* note 150, p. 2.
[183] *See* IEMA, *Environmental Impact Assessment Guide to: Climate Change Resilience & Adaptation*, p. 9 (June 2020), https://www.iema.net/download-document/237186.
[184] *Ibid.*, p. 8; IAIA, *International Best Practice Principles*, *supra* note 150, p. 2.
[185] In cumulative risk analysis, a synergy is typically defined when two or more impacts interact in such a way that the combined effect is greater than the sum of their individual impacts in isolation. *See* EPA, *Framework for Cumulative Risk Assessment*, p. 48 (May 2003), https://www.epa.gov/sites/production/files/2014-11/documents/frmwrk_cum_risk_assmnt.pdf.

by climate change, and assess impacts against this changed baseline."[186] When assessing this changed baseline, assessments should use a high emissions scenario whenever possible.[187]

e. States should also assess the potential climate impact of energy policy decisions through "strategic environmental assessments."

Despite the broad effect of energy policies on future GHG emissions pathways, many countries do not assess the impacts and alternatives of proposed policies, instead analyzing only individual projects. As noted in Section B.2.b above, high-level energy policies influence the future GHG emissions pathways a country will take. Once locked in, these policies can make otherwise cheap or readily available clean energy alternatives costly or impossible to implement at the project level. It is thus important to assess the effect policies may have on the climate before they are adopted.

Assessing the potential impacts of higher-level decisions—known as "strategic environmental assessment"[188]—should be applied to consider the potential climate effects of any proposed law, policy, program, or plan. This ensures assessment while "major alternatives are still open and there is far greater scope than at the project level to integrate environmental considerations into development goals and objectives."[189] Strategic assessments can also "provide early warning of large-scale and cumulative effects, including those resulting from a number of smaller-scale projects,"[190] which makes them "vitally important in integrating mitigation of emissions and adaptation to climate change into policy-making."[191] For example, strategic assessments of electricity planning would alert States to the incompatibility of committed emissions from existing and planned power plants with the 1.5°C target and help them adequately "prepar[e] for the social and economic consequences of downsizing fossil fuel power plants," as necessary to achieve climate goals.[192] In this sense, strategic assessments would help identify the climate impacts of future activities that form part of a broader policy "during the initial stages of project discussion" and "before the project location and design have been decided,"[193] as required by the American Convention.[194]

Despite the importance of strategic assessments for providing climate information and enabling public participation on energy policy, few countries include a legal requirement to

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[186] IAIA, *International Best Practice Principles*, *supra* note 150, p. 2.
[187] IEMA, *Environmental Impact Assessment Guide to Climate Change Resilience & Adaptation*, *supra* note 183, p. 8.
[188] UNEP, *Environmental Impact Assessment and Strategic Environmental Assessment*, *supra* note 165, p. 6.
[189] *Ibid*., p. 86.
[190] *Ibid*.
[191] IAIA, *International Best Practice Principles*, *supra* note 150, p. 1.
[192] Catalina Marinkovic and Adrien Vogt-Schilb, *Is Energy Planning Consistent with Climate Goals? Assessing Future Emissions from Power Plants in Latin America and the Caribbean*.
[193] IACtHR, OC-23/17, para. 162.
[194] The European Court of Human Rights has similarly urged the early analysis of impacts, indicating "that when States must determine complex issues of environmental and economic policy, the decision-making process must firstly involve appropriate investigations and studies in order to allow them to predict and evaluate in advance the effects of those activities which might damage the environment and infringe individuals' rights." IACtHR, OC-23/17, para. 159 (citing to ECHR, *Case of Hatton and Others v. The United Kingdom* [GS], No. 36022/97, Judgment of July 8, 2003, para. 128, and ECHR, *Case of Taşkin and Others v. Turkey*, No. 46117/99, Judgment of November 10, 2004, para. 119).

conduct these before approving new policies or regulations.[195] Nonetheless, many countries in the hemisphere give authorities the discretion to conduct strategic environmental assessments as a tool when policy making, and this framework could readily be adapted to a climate analysis of a policy's impact on GHG gas emissions.[196] In fact, the Inter-American Development Bank recently undertook this type of analysis for energy planning in Latin America and the Caribbean, finding that emissions from existing and planned power plants far exceed what can be emitted to limit warming to 1.5°C despite carbon neutrality pledges.[197]

When conducting strategic assessments on energy policy, States should follow the requirements we describe above for project-level climate assessments, including the standards this Court has outlined in its advisory opinion OC-23/17[198] and in accordance with international best practice.[199]

IV. Conclusions and Petitions

For the preceding reasons, we respectfully request this Honorable Court to incorporate the following considerations into its advisory opinion on the climate crisis:

1. That as part of their obligation to respect and ensure human rights in the face of the climate crisis, States must use the maximum available means and resources to ensure a just transition to clean energy.

2. That, as a result of the above, all States must immediately begin implementing the following sets of measures:

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[195] UNEP, *Assessing Environmental Impacts: A Global Review of Legislation*, pp. 86-87 (2018), https://capacity4dev.europa.eu/library/assessing-environmental-impacts-global-review-legislation_en.
[196] *Argentina*: Secretaría de Gobierno de Ambiente y Desarrollo Sustentable, Resolución No 434/2019, Procedimiento para la Aplicación de la Evaluación Ambiental Estratégica 13 de noviembre de 2019; *Chile*: Ley No 20.417, que crea el Ministerio, el Servicio de Evaluación Ambiental, y la Superintendencia del Medio Ambiente, 12 de enero de 2010, artículo primero, inciso (1)(c)(i)(bis); *Costa Rica*: Ministerio del Medio Ambiente, Decreto Ejecutivo N° 32967-MINAE, Manual de Instrumentos Técnicos para el Proceso de Evaluación del Impacto Ambiental, 20 de febrero de 2006, Parte III, artículos 3.7 y 6.2.1; *El Salvador*: Ley del Medio Ambiente, Decreto No. 233, 4 de mayo de 1998, capítulo IV, artículo 17; *Guatemala*: Acuerdo Gubernativo 137-2016, 11 de julio de 2016, artículo 13.c; *México*: Ley de Transición Energética, 24 de diciembre de 2015, artículo 19.VIII.a; *Nicaragua*: Decreto No. 20-2017, Sistema de Evaluación Ambiental de Permisos y Autorizaciones para el Uso Sostenible de los Recursos Naturales, 29 de noviembre de 2017, capítulo II, artículo 6.1; *Panamá*: Ministerio de Ambiente, Decreto Ejecutivo No. 4, 7 de febrero de 2017; *Perú*: Ministerio del Medio Ambiente, Decreto Supremo Nº 019-2009-MINAM, Reglamento de la Ley Nº 27446. Ley del Sistema Nacional de Evaluación de Impacto Ambiental, Disposición complementaria final cuarta; *República Dominicana*: Ley General sobre Medio Ambiente y Recursos Naturales (64-00), capítulo IV, artículo 38; *Uruguay*: Decreto N. 221/009, Reglamento Ley sobre Ordenamiento Territorial y Desarrollo Sostenible, 11 de mayo de 2009, capítulo II, artículo 8.
[197] Catalina Marinkovic and Adrien Vogt-Schilb, *Is Energy Planning Consistent with Climate Goals? Assessing Future Emissions from Power Plants in Latin America and the Caribbean*.
[198] IACtHR, OC-23/17, paras. 162-170.
[199] *See, e.g.*, UNEP, *Environmental Impact Assessment and Strategic Environmental Assessment*, *supra* note 165, ch. 5; IAIA, *Strategic Environmental Assessment Performance Criteria*, Special Publications Series No. 1 (January 2002), https://www.iaia.org/uploads/pdf/sp1.pdf.

a. Take immediate steps to phase out fossil fuel extraction according to their fair share, with developed States following an expedited timeline and providing significant aid to less-developed States;

b. Eliminate all subsidies for fossil fuel extraction and begin reducing subsidies for fossil fuel consumption;

c. Replace most fossil-fuel generated power with clean energy, including by:

   i. Taking immediate steps to phase out existing fossil fuel-burning power plants according to the State's fair share, with more-developed States immediately stopping the approval of new plants and retiring existing plants on an expedited timeline and providing funding and technical assistance to support less-developed States in doing the same;

   ii. Removing barriers to and promoting clean energy;

   iii. Avoiding "false solutions" that deepen dependency on fossil fuels;

   iv. Ensuring human rights for all communities affected by renewable energy projects; and

   v. Providing opportunities for public participation and access to information for all decisions regarding energy policy that will create new sources of climate pollution.

d. States must conduct climate assessments before new sources of climate pollution, including fossil fuel projects, or decisions affecting energy policy. Such assessments must:

   i. Account for total life-cycle emissions, which include all direct and indirect (so-called "scope 3") emissions;

   ii. Analyze whether the project is compatible with a country's "fair-share" contribution to global emissions reductions;

   iii. Assess all feasible alternatives and reject fossil fuel proposals where a clean energy project could bring similar benefits and avoid or reduce GHG emissions;

   iv. Analyze how the worsening climate crisis will impact the project; and

   v. Assess the potential climate impact of energy policy decisions through "strategic environmental assessments."

V. Notifications

Please send all official notifications to the following addresses:

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Mail: Earthjustice, 50 California St., Suite 500, San Francisco, CA 94111, USA

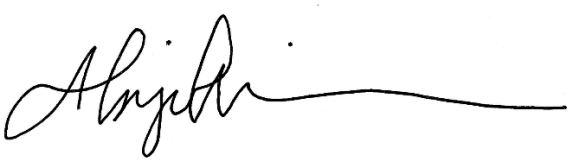
Phone: +1-415-217-2000 / Fax: +1-415-217-2040

VI. Attachments

Please find, under separate cover, official electronic copies of the following documents which demonstrate the legal existence of Earthjustice and identify its current legal representative:

- Resolution 18-08 of the Board of Trustees of Earthjustice, dated June 25, 2018, approving the election of Abigail Dillen as President and legal representative of Earthjustice.
- Bylaws and Articles of Incorporation of Earthjustice registered in the State of California, United States.

VI. Signatures



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