Solarities

Seeking Energy Justice

After Oil Collective
Ayesha Vemuri and Darin Barney, Editors

After Oil Collective

The After Oil Collective is a subgroup of the Petrocultures Research Group that meets periodically for collaborative work. *Solarities: Seeking Energy Justice* is one of the outcomes of this work.

Aaron Kirkey, Amanda Boetzkes, Amelia Moore, Ashley Dawson, Ayesha Vemuri, Bob Johnson, Brent Ryan Bellamy, Burç Köstem, Caleb Wellum, Claire Ravenscroft, Cymene Howe, Darin Barney, Derek Gladwin, Dominic Boyer, Elizabeth Miller, Eva-Lynn Jagoe, Gökçe Günel, Graeme Macdonald, Gretchen Bakke, Hannah Tollefson, Heather Davis, Ian Clarke, Imre Szeman, Jamie Cross, Jeff Diamanti, jenni matchett, Jennifer Wenzel, Jessie L. Beier, Joel Auerbach, Jordan B. Kinder, Josefin Wangel, Kim Förster, Kyle Whyte, Laurence Miall, Lev Bratishenko, Louis Beaumier, Maize Longboat, Mark Simpson, Mette M. High, Mirra-Margarita Ianeva, Nandita Badami, Nicole Starosielski, Rachel Webb Jekanowski, Rafico Ruiz, Rhys Williams, Shane Gunster, Sheena Wilson, Shirley Roburn, Simon Orpana, Stacey Balkan, Tomas Ariztía, and Yuriko Furuhata.

Situating Solarity

SOLARITY IS THE CONDITION we inhabit as we struggle to make worlds and build futures out of the ruins of petrocapitalism. It inspires hope, creativity, and joy, even as it carries the weight of our guilt, shame, and anger at what we—or, more precisely, some of us—have been and done. It is worked into nearly everything, transforming matter into blooms and desiccations; it is existential and infinitesimal all at once. Solarity is, fundamentally, a relational condition; the heat, light, and gravity of the sun are all so deeply intertwined with earthly life that there is no "outside" of solarity. As we turn, in this moment of planetary crisis, toward the sun, we seem to be seeking both a new energy regime and a new set of human and more-than-human relations. It is also an inherently ambivalent condition. The chapters that follow are the combined work of more than fifty contributors. As a result, the meanings attached to solarity—an emergent concept being shaped by multiple voices—will be many. This is a feature, not a bug (though bugs are generative too). Solarity offers an illuminating yet blinding array of new (and ancient) histories, stories, mythologies, promises, materials, and relations that are deeply ambiguous: neither "good" nor "bad," neither wholly "positive" nor "negative," neither "bright" nor "bleak." Some solarities could be revolutionary. Others will not be. These qualifiers and possibilities are bound to the particular circumstances from which they arise—historical

and otherwise—as well as the subjective orientations of those experiencing them. They are, in other words, *situated*.

Although the condition of solarity has always been central to earthly cycles of life and death, the current ecological crisis invites a new orientation to the sun focused primarily on solarity as *energy* or, more accurately, as *fuel*. Seen this way, solarity is also an excessive flood of energy abundance. The sun's energy, especially in discourses of solar energy and solar transitions, is depicted in grand, overflowing terms. Think of these refrains that have become truisms in the solar imaginary: "more energy falls on the world's deserts in six hours than the total global energy consumption in a year" or "if we took all of the sun's energy from everywhere on the planet, in one hour, we would have enough energy to power the world for an entire year." Solar abundance also turns to the moon. Some have proposed a Luna Ring,[1] with electric power to be generated through a belt of solar cells surrounding the eleven-thousand-kilometer lunar equator. Power will be beamed to Earth from the near side of the moon with the Luna Ring existing in continuous sunlight, thereby doubling the power generated on Earth in the same twenty-four-hour period.

Although claims about the quantity of energy that can be seized from the sun may be accurate, they also tend toward the consumptive. They channel the human user of energy into a web of solarity that is about capture and utility. Solarity can ebb into the domain of gluttony when there is ever, forever, more-than-enough. The power of the sun is made to figure as providing for human lives, all calculated through consumption. A seemingly insatiable human desire for power pairs well with solarity's plenitude. Though there is enough power for all in solarity's promise, theoretically, it is also true that such abundance rarely gets distributed evenly. But perhaps solarity can change that.

1. Solar System Exploration Research Virtual Institute, "The Luna Ring Concept," https://sservi.nasa.gov/articles/the-luna-ring-concept/.

The promise of solarity's redistribution must contend not only with the temporal and spatial logics of the sun's radiation but also with the forms of technological and infrastructural mediation required to convert solar energy into electrical energy. It also requires us to overcome decades of negative campaigning by the many-tentacled arms of the fossil fuel complex, from media to politics, that have not only consistently emphasized—falsely and heinously—its material limits but also preposterously claimed it as destructive to industry, environment, and even health.[2] Though solarity promises a transcendence of limits in terms of energy, the limits of space and materials on Earth remain. Solarity, then, requires a reckoning with our material and affective attachments to the present. For those of us in the overdeveloped world living lives of hyperconsumption, shame, guilt, and anger are often our first emotional responses to the climate crisis. Solarity asks for much more: it demands a radical hope as well as a radical reassessment of what, of the present, we might wish to retain as we attempt to rescue our future.

2. See, e.g., Michael Mann, *The New Climate War: The Fight to Take Back Our Planet* (New York: Public Affairs/Hatchette, 2021).

This page intentionally left blank

The Promise of Solarity

THE TURN TOWARD THE SUN, toward embracing solarity, is replete with desire and hope. Hope for a future that grasps the sun's abundance without the need for mediation. Hope for a future when "civilization's" reliance on the buried sunlight of fossil fuels is overcome. Hope for a more egalitarian and just future for human and nonhuman relations. Hope that we will overcome the devastating spiral of planetary destruction, death, and extinction that appears on the horizon. Hope that we can continue living as we do in the overdeveloped West by turning toward solar fuel. Hopes that cascade and multiply and are awash with both harmonies and dissonances. Though many share the vision of a just solar future, delving deeper into specific solar desires reveals that there is not, and cannot be, one Solarity; rather, there is a proliferation of plural solarities that manifest a spectrum of desires.

Solarities are orientations to the energy of the sun. These orientations exceed human relations to the sun's rays to also include relationships with lands, minerals, waters, animals, and people, relationships that are mediated by and materialized in infrastructure. What will the infrastructures of these solarities be? What will they be made of, and what will they make of us? One of the desires attending solar energy is that, in its universal availability and infinite supply, it does not require the sorts of mediation necessary for energy to become fuel. Yet this is imaginary: an orientation

that approaches the sun as a source of unlimited energy, capable of saving the planet by replacing fossil fuels, necessarily implies infrastructural mediation with specific material implications.

When we discuss solarity, it often seems to imply solar energy tout court. But we would rather orient ourselves to solarity as naming a way of collective being that is consonant with the generous outpour of energy from the sun. Solarity uncovers a collective desire to share and distribute energy as a way of regulating the social order. But today, this desire cannot be disentangled from an impetus to overturn the prevailing energy order and its coextensive injustices. Petroculture is premediating the way solarity unfolds. The utopian aspirations of solarity will be informed by global oil's history of social and environmental exploitation. In other words, while solarity might supplant the petrocultural regime, it is also at risk of succumbing to its slow violence and necropolitics.[1] What seems certain is that the transition to solarity will be messy, incomplete, and unevenly distributed.

For some, solar names the promise of clean energy; it is also the promise of *infinite* energy. This is due to the sheer amount of energy produced by the sun. And to add to the good news, there's no need to worry about "peak solar" in the way that some have fretted about "peak oil": we can count ourselves safe for the next five billion years, until the sun begins to transition into a red giant. When we commonly speak about "energy," what we are really referring to is fuel: matter that can be made to release energy. Every form of fuel we currently use demands the production of physical infrastructures to create energy (from fireplaces to nuclear power stations); in the process, as fuel becomes energy, it always leaves a physical trace. With solar power, we believe we have found a way to cut fuel out of the picture of energy production. The dream of solar is that we can access energy as energy: energy without mediation, energy without

1. See Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, Mass.: Harvard University Press, 2013); Achille Mbembe, "Necropolitics," *Public Culture* 15, no. 1 (2003): 11–40.

the need for fuel and so without leaving any trace of its use. This is the dream of infinite energy without needing to worry about its impact, either as extraction or as emission.

Thus does solar power present itself as the solution, but already, we have a problem. Who is this "we" that "commonly speaks about energy" in this way? The pretense of the first person plural is exposed the moment energy enters the picture. Some relate to energy in this way; many others do not, or would not if they were not forced to by those who do. Some (mostly men, mostly white, mostly Anglo/Euro/Christian descendant, mostly rich, mostly on land that is not their own) accumulate and enjoy the benefits of fuel and the energy it generates, whereas others (mostly women, mostly racialized, mostly from "Other" traditions, mostly poor, mostly Indigenous and dispossessed) have themselves historically and contemporarily been treated as fuel, a source of energy to be extracted, expended, and exhausted for the sake of someone else's good life. Those who inhabit what Macarena Gómez-Barris calls the "extractive zone"[2] (of which there are many) have a very different relationship to energy than "we" do. It might be true that we have all always been solar, in the sense that people everywhere have lived by harvesting the energy of the sun in one way or another, but it would be a mistake to believe that this means we have all been or will be solar in the same way or in the ways we would choose. There has been and will be no solarity, only solarities, and the diverse characters of these solarities will be determined by the relations, not the source, of their energy.

Solar thus contains a double promise: energy without fuel and an infinite amount of energy. In her essay on the discourse of "zero"—"zero carbon, zero waste, zero landfill, zero emissions, (net) zero energy"[3]—in the context of large-scale solar projects in India,

2. Macarena Gómez-Barris, *The Extractive Zone: Social Ecologies and Decolonial Perspectives* (Durham, N.C.: Duke University Press, 2017).

3. Nandita Badami, "Counting on Zero: Imaginaries of Energy and Waste in the New Green Economy," *Platypus: The Castac Blog* (blog), October 21, 2016, http://blog.castac.org/2016/10/counting-on-zero/.

Simon Orpana, *Solar Surfer,* 2021. Pen and ink.

Nandita Badami writes, "Zero performs effective material and ideological work precisely because it simultaneously indexes both nothingness and infinitude." Solarity as a net zero condition reproduces the fantasy of using energy without environmental consequences. No fuel means no spent fuel rods to bury, no carbon dioxide to manage, no flooded valleys from hydro projects to ameliorate, no torn-apart and poisoned land to recondition. In the drama called "sustainability," solar plays the part of the hero who appears in the nick of time to save us from ourselves. Solar stands over the dead body of fossil fuels, sword raised to the sun, leading us forward into a future in which energy is energy and fuel is left for history books.

This version of solar as an energy source immediately available, infinite in supply and negligible in cost, settles upon the sun as but the latest frontier of an extractive enterprise whose names have been slavery, colonialism, industrial capitalism, imperialism. Among its many potentials, solarity could be the new name for this enterprise. But this seems counterintuitive. How can one possess the sun and own what is infinite? We do well to recall that the histories and present of extractive enterprise have always and everywhere involved projecting the possibility of property, with its attendant relations, upon people, places, and things previously conceived as common and infinite.[4] This reminds us that, in many places, the projection of commonness that precedes appropriation has itself been an act of dispossession and part of the ongoing legacy of the colonial, including settler and neocolonial—formations in which many of us live.

What happens to property in a world awash in energy? Moreover, what happens to a world awash in yet another type of energy that has been forcibly converted into property? One possibility is that solarity might be continuous with the capitalist, masculinist, racist, colonialist, and imperialist extractive enterprises that have defined the fossil fuel era globally. Still, the energy promised by solar can't help but lead us to speculate about how else people might live once they have access to infinite, clean energy. The possibilities of lives transformed by ready access to solar energy have been expressed with particular hope and force in relation to geographies historically consigned to energy poverty by the colonialisms and imperialisms of the Anglo-Euro-American Global North.[5] Could solarity mate-

4. Silvia Federici, *Caliban and the Witch: Women, the Body, and Primitive Accumulation* (New York: Autonomedia, 2014).

5. Bill McKibben, "The Race to Solar-Power Africa," *New Yorker,* June 19, 2017, http://www.newyorker.com/magazine/2017/06/26/the-race-to-solar-power-africa; Jamie Cross, "The Solar Good: Energy Ethics in Poor Markets," *Journal of the Royal Anthropological Institute* 25, no. S1 (2019): 47–66.

rialize different ways of being in relation to one another and to the plurality of nonhuman others with whom our fates are entangled?[6]

Answers to this question will depend heavily on whether and how people approach the promise of solar power as either infinite or not. Until very recently, the upper and middle classes of the wealthy capitalist countries have *always* used energy as if it were infinite, worrying little about the repercussions of the fuels they've used or the uses to which their fuels are put. Peak oil temporarily gave those of us in this situation pause, but it is global warming that has caused us to reflect on the processes and practices by which we transform the energy of the sun into fuels we can use, and that has caused us to think more seriously about the implications of using these fuels as if they were infinite. What will solarity mean if a primary use of the sun as fuel is to power air conditioners that make it possible (for some) to withstand the sun's relentless heat? The desire for infinite and limitless energy seems, in many ways, too deeply intertwined with capitalist obsessions with limitless growth that have ignored the needs of the many in favor of serving the greed of the few. Can the desire for infinite energy be disentangled from these extractive and oppressive histories of unfettered growth? Or does a more solidarity-oriented solarity require a new vocabulary of imagination and desire that prioritizes subsistence and satiation over the ever-receding horizon of infinitude?

Ursula Le Guin has written that the "utopian imagination is trapped . . . in a one-way future consisting only of growth."[7]

6. Kim TallBear, "Theorizing Queer Inhumanisms: An Indigenous Reflection on Working beyond the Human/Not Human," *GLQ: A Journal of Lesbian and Gay Studies* 21, no. 2–3 (2015): 230–35; Marisol de la Cadena, *Earth Beings: Ecologies of Practice across Andean Worlds* (Durham, N.C.: Duke University Press, 2015); Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham, N.C.: Duke University Press, 2016); Eduardo Kohn, *How Forests Think: Toward an Anthropology beyond the Human* (Berkeley: University of California Press, 2013).

7. Ursula K. Le Guin, *Dancing at the Edge of the World: Thoughts on Words, Women, Places* (New York: Grove Press, 1997).

SOLAR, FARMS: ON PLANNING FOR SOLARITY
Imre Szeman

Renewable energy systems can be hard to set up. Three words sum up some of the unexpected limits that need to be addressed: *property, zoning,* and *bumpy.*

PROPERTY: There is nothing compelling any private landowner to make her property available for renewable energy systems. In Canada, close to 90 percent of all land is publicly owned, which might seem to offer a solution. But there are two hiccups to this. The first is that the percentage of Crown land drops significantly as one moves closer to Canada's major population centers, where most of the renewable energy would be needed. The second hiccup? The Canadian government is not in the energy business.

ZONING: Whether private or public, not all property is made alike. Decisions have been made about what can go where—housing, businesses, and industry. There are wetlands and watersheds, natural and recreation parks, conservation lands and farmlands. None of these can house renewable energy systems.

BUMPY: Earth isn't flat. Even if the equation of property + zoning seems to be pointing to a positive outcome for renewables, slope, drainage, and soil composition mean that, in many cases, the outcome is zero.

Ecomodernist accounts of energy transition live in the ruins of such an imaginary, even as the misery and violence required by endless "growth" become increasingly undeniable—solar panels on green pastures, Reagan's shining city in the background, shimmering blue with their reflection. What unites such fantastical narratives of technology and growth and the more fatalist responses to ecological disaster that seek to "administer" the catastrophe is their investment in scarcity as the definitive ecological problem. In the ruins of growth, scarcity is either overcome by technology or contained by force, borders, and cruelty.

Perhaps solarity requires of us another imaginary, one shared by many cultures—not of growth but of abundance. Abundance is what literally moves with a wave, *ab + undare,* of undulation. Hence it is nothing like the overcoming of limits, the stockpiling of surplus

siphoned to increase production, but on the contrary requires an embracing of earthly metabolisms, even of degrowth. The ethos of abundance exists all around us, in insisting that there is always more room at the table, in practices of obligatory sharing, expenditure, and the commons. Through it, one may hope to vacate the very desire for accumulation that drives economic expansion. Yet abundance might also be the name of a political strategy for embracing collective limits, of warding off growth sometimes through equitable redistribution, other times through glorious expenditure. An abundant energy transition would untether our visions of the good life from narratives of growth and private accumulation and mobilize behind equitable sharing of energy as a collective good.

In *The Accursed Share,* Georges Bataille[8] proposes a theory of the economy that begins with the sun and the energy that it produces. "Solar energy," Bataille writes, "is the source of life's exuberant development. The origin and essence of our wealth are given in the radiation of the sun, which dispenses energy—wealth—without any return. The sun gives without ever receiving."[9] This originary dispensation is key to what Bataille describes as a general economy. The general economy is constituted by expenditure and squandering, because the energy of the sun is always in excess, impossible to contain and control. By contrast, the human economy is constituted as a restricted one that operates as if there were a scarcity of energy and other resources and so is organized around the control and management of them. As Amanda Boetzkes[10] writes, "capitalism's failure to acknowledge our innate solarity, and its fundamental prohibition of expenditure, results in the extreme pressure to accumulate energy without waste (in the form of profit) and a collective

8. Georges Bataille, *The Accursed Share,* vol. 1, trans. Robert Hurley (New York: Zone Books, 1987).

9. Bataille, 1:28.

10. Amanda Boetzkes, "Solar," in *Fueling Culture: 101 Words for Energy and Environment,* ed. Imre Szeman, Jennifer Wenzel, and Patricia Yaeger (New York: Fordham University Press, 2017), 315.

drive toward planetary destruction." Here solarity serves as the countermodel for social relations based on generous expenditure rather than hoarding. Bataille's solarity is a fundamentally *redistributive* condition—to cite the example Bataille offers: "a transfer of American wealth to India without reciprocation."[11] Thus, Bataille observes, "changing from the perspective of *restrictive* economy to those of a *general* economy actually accomplishes a Copernican transformation: a reversal of thinking—and of ethics."[12]

Something like the Copernican "reversal of thinking" attributed by Bataille to solarity has animated many designs for large-scale social transformations based on the specific materiality of the sun. Boetzkes describes the vision of a decentralized, ecological community advanced by Murray Bookchin's postscarcity anarchism as predicated on a belief in solar power as "an inexhaustible source of energy, freely and equally available."[13] David Schwartzman has long insisted that we are approaching the possibility of "solar communism,"[14] which Schwartzman describes as "a global civilization realizing Marx's aphoristic definition of communism for the twenty-first century: 'from each according to her ability, to each according to her needs,' referring to both humans and ecosystems." Here the advent of solar solves two big problems at once, positioning human beings in a better relation to nature and to one another. In Schwartzman's view of things, solar does away with the rationale for and support of the military–industrial complex; the (virtually) free energy of solar also does away with scarcity and with economic value as we currently understand it.

Similarly, Hermann Scheer, once a German parliamentarian and architect of that country's famed *Energiewende* (energy transition), declared, "Making the ground-breaking transition to an economy

11. Bataille, *Accursed Share,* 1:40.
12. Bataille, 1:25.
13. Boetzkes, "Solar," 316.
14. David Schwartzman, "Beyond Eco-catastrophism: The Conditions for Solar Communism," *Socialist Register* 53: 143–60.

based on solar energy will do more to safeguard our common future than any other economic development since the Industrial Revolution."[15] For Scheer, this was because the particular material properties of solar energy and its infrastructures promised to "re-establish the links between the development of the economy as whole and environmental cycles, stable regional business structures, cultures and democratic institutions," a possibility the fossil fuel economy has all but obliterated. As Dominic Boyer observes, in this respect, Scheer seeks "a revolutionary leap forward into a new form of sociality, one that is energy intensive and technologically enabled but resolutely local, sustainable and diverse."[16]

When we think about solar, we need to be alert to its ideological function, which is yet again to erase social relations, interspecies relations, material relations, and finitude from the picture of energy use. As Badami observes, the laudable goal of reaching zero through solar and other renewable infrastructures can leave uninterrogated the paradigms of technological and economic growth reproduced by such plans. Badami writes, "The ideological and material work that the zero seems, ultimately, to perform is to maintain the fiction that we can have our cake and eat it too. It lets us constantly consume, and then calibrate—in order to 'lighten the footprint'—and allows us the comfort of not having to reimagine the potential limitlessness of consumption."[17]

Writing about the accelerating arrival of photovoltaic technologies to regions of energy poverty in South Asia and sub-Saharan Africa, Jamie Cross points out that the benefits of off-grid solar electrification for the energy impoverished exist alongside the opportunities for capital intensification that these same projects offer to the already enriched. As Cross puts it, "for many management

15. Hermann Scheer, *The Solar Economy* (London: Earthscan, 2002), 33.

16. Dominic Boyer, "Infrastructure, Potential Energy, Revolution," in *The Promise of Infrastructure,* ed. Nikhil Anand, Akhil Gupta, and Hannah Appel (Durham, N.C.: Duke University Press, 2018), 237.

17. Badami, "Counting on Zero."

and business executives in off-grid solar companies, selling solar power to people living in chronic energy poverty presents itself as an ethical-economic utopia: the opportunity to express care for others and the environment at the same time as fulfilling a fiduciary duty of care to investors and shareholders."[18] To say that solar promises infinite, clean energy might well be to say that it allows us to continue to think of energy in the same way that many of us always have, even as the dream of energy sufficiency provides an alibi for erasing the political, ethical, and economic relationships that subtend how energy becomes power.

We can detect this bright depiction of "solar power" in the popular image bank of solarity. A quick internet search for "solar power," for example, presents standard images of large-scale farms and arrays tending toward an aesthetics of gleaming futurity and industrial-scale possibility. The future is bright and upscaled in such visions. Cross's warning, however, of the reality of "green dystopias" has powerful representative examples in some solar imaginaries that, although not downplaying the potential power of the sun as a formidable force in our energy futures, suggest a possible dystopian turn in solarity, if the kinds of relations we outline herein are not successfully realized. Perhaps the most resonant recent example is the shocking opening sequence of Denis Villeneuve's *Blade Runner 2049,* involving a flyover of a future California where a monochrome and smoggy landscape stocked with solar panels fills the screen to project a darkly ecological mood of entropy, violence, and decay. The solar horizon here is not a sunny one, and we are immediately asked to confront our expectations of solarculture's set associations. The promise of solarity, then, is always ambivalent.

18. Cross, "Solar Good," 2.

Fumbling toward Solarity

SOLARITY IS NEITHER UTOPIAN NOR DYSTOPIAN, neither bright nor bleak, but a mixture of the two tendencies. If we take solarity in its utopian aspect, it becomes a horizon against which we can measure the present, evaluate our own actions. None of us are bright (utopian) solar subjects. Solarity is not an achieved state but a potential horizon against which we might evaluate the present, and evaluate ourselves.

The only relationship to solarity of which we are capable is one of imperfection and insecurity against an ideal horizon. The achievement of solarity demands radical changes to infrastructures, social relations, values, habits—to the human-made world in which we live, the ways in which we live in it, and the relations between the two. As such, we are thrown into a position of uncertainty, attempting to act, speak, make, live, against the grain of our own experience and learned behavior. In attempting to make a different world, we are thrown into the position of inexperience.

We don't know yet how to live in solarity; we are not, and don't know how to be, solar subjects. The world that would produce such a subject has not (yet) come into being. That leaves us in a position of radical insecurity, where our knowledges, embedded in practice and habit and tradition, concretized in our infrastructures, articulated in our politics, are insufficient, improper, polluted, and polluting. Solarity confronts us with the challenge of learning to live and do

and think and love again, to hold ourselves askance to the world we knew, to estrange ourselves from both the world we know and ourselves, to begin to be differently and to build differently.

A key difficulty here is the willed relinquishing of expertise. We have learned how to successfully be in the world. But this experience is unfit for solarity, and the latter will not come into being if the former is not relinquished. We are thus faced with the demand to become children again, stripped of the limiting confidence of habit. The proper attitude toward solarity in the present is insecurity—to acknowledge that we lack expertise, that we do not know how or what to do. And yet we have to do something, so we act insecurely, we act precisely against what we know, to create space for new and other knowledges. Solarity recasts fossil-fueled adulthood as a mistake, as a foolish and dangerous mode of being and set of knowledges, despite its great confidence in itself. The proper attitude of insecurity is difficult to dwell in as an adult, but we might turn to the toddler as an emblem for proper solar subjectivity in the present—to try and fail and try again with no failure of confidence but rather a joy in the simple fact of doing better, bit by bit.

There is no place in the present for a finished statement of solarity, only provisional and imperfect gestures and efforts and figures. This holds for any and all areas of practice: What might solar art look like? Solar politics? Solar community? Solar education? We strive to estrange the present in new practices, and what we produce now from our fossil-saturated circumstances is to the horizon of bright solarity as the crude but joyful scrawl of a child is to a masterpiece. Or to be more exact, within the most sophisticated and radical products of the present, we will discern, at best, crude traces of that alternative future. It is possible that this crudeness is also a necessary quality of solarity, a quality of imperfection, of openness to revision.

Solarity in the present is taking pride in a shitty first attempt, and the commitment of the second attempt, in contrast to the practiced motions through which flows the status quo. Solarity is fumbling toward something that we don't know and can't quite figure. Solarity

SOLARPUNKING
Laurence Miall

The punk and DIY aesthetic is maybe the best approximate form for the look and feel of early solarity. Punk was popular because it sounded like anyone could do it. And it sounded like real life. It didn't hide its blemishes—it reveled in them. If it is to succeed as something other than a glossy substitute for petroculture, solarity will have to be honest about its promise and limitations.

DIY is often associated with renovation. Like the amateur renovators they are, solarians will have to be prepared to be laughed at, get things wrong, get frustrated, get hurt, and get rejected. They will by necessity frequently be dirty and look silly. It takes an amateur far longer than it does a professional to build, repurpose, or renovate, but solarity will not be a quick fix. It will be trial and error. And we will have to get our hands dirty.

is discomfort and insecurity, because only then do we know that we are on unfamiliar ground. Solar community is shared frustration. It's the difficulty of acting together when the rules need making up as we go along, when goals and aims are unclear, when failure is encoded into success. None of us is an expert solar subject; we are all amateurs.

Solar panels have an efficiency of, at best, around 25 percent. The light strikes the panel, and excited electrons begin to bounce and jostle inside the material, but only some 25 percent of that activity finds its outlet. A quarter of the electrons initiate the wave of motion through the metal wires that is the electrical current; the rest simply don't connect. The path to solarity is difficult to find, and we have to accept a much lower rate of "production" than we are perhaps used to, and a much higher rate of play, of excitation that goes nowhere, the joy of bouncing around in the hope of striking the path.

Can we think of solarity as a somatic recognition, which is to say, you know it when you feel it? Like sunshine on skin, is it a condition that surrounds us? But can it also damage us should it be too intense?

We can only make the just solar future with compromised present materials. The process of transition is necessarily troubled,

and the foundations of a solar future—the panels themselves—are a document of a utopian future that is also a document of barbarism. The question of urgency is here paramount. The globalized, fossil-fueled, capitalist mode of production stands ready as a coiled spring to produce a solar future, and the brief time frame provided by the shrinking carbon budget for 2C or 1.5C necessitates its deployment. Even if there were the will, there is not the time for the means of producing the solar future to be made commensurate to its utopian figure. Which is to ask—can we build a just future with compromised materials? Can solar technology, produced through the exploitation of labor and nature, power a utopia?

Infrastructure embodies and extends the relations that produce it, concretizing values, making durable desires, and facilitating certain ways of being while impeding others. The challenge of just solarity under conditions of climate urgency is to somehow develop within, through, and on top of that which it seeks to negate.

In finance, speculation is the practice of engaging in short-term, risky financial transactions. In workshops, movement building, and youth organizing, speculation is something different. It's a process, even a method, that taps in to the power of our collective imagination. Both imply risk, but one has the power to subvert the other. Speculative methods have the potential to breathe life into a conference, a classroom, even a movement. Making speculative art together offers an intimate way of building community, discovering shared affinities, permitting conversations about tough issues to unfold, slowly. Futurist speculative methods can help to reverse fear and anxiety and ultimately challenge paranoid capitalist logics that permeate disaster scenarios. And disaster and fear are rising with temperature records, raging wildfires, cities short of water, historic floods, and more. Fear is abundant, but so is our imagination. The possibilities of solarity find form through collective futurist imagining—when we begin to rethink how we grow our food, how we travel, how we work, how we communicate with each other, how we conceive of time, how we interact with the species and ecosystems on which we rely for survival, and how we

BUILDING A SOLAR PANEL
Jennifer Wenzel

I still remember the first time I tried to build a solar panel. My community and I (a group of fossil fuel subjects trying to be solar subjects) waited for the power to come on so we could see what to do. Am I doing it? Am I doing it right? It turns out that using more solder makes the work go better. Trying to listen to the explanation of the physics of the cell, how electrons balance each other out, 5 v. 3 = 4—that's all I remember, because making is hard, and who has time (mind?) to listen or think? But the adjectives tossed into the circle of work tables—"dirty," "lumpy"—building a chain of meaning as we use heat to link metal to metal, lexical connections to describe work that is not like writing at all.

build the trust, the participatory values, and the skills necessary to overcome tremendous odds.

The difficulty of just solarity, as with any utopian horizon, is the difficulty of its translation into positive images, words, representations. The utopian process is one of continual failure, and not so much moving toward as away from. This is the necessity of a confident yet insecure subject, and community. Of acting in the unknown. Of a leap of faith, of the negation of what is and the affirmation of what is not, of what cannot be known but only intuited from its universal quality—that which unites rather than divides. Conditions of climate emergency and climate urgency provide a new and difficult context for utopian thought, as it demands positive and manifest action. How to act in uncertainty, yet also act positively? How to aim at utopia, but also knowingly deploy and draw on and so propagate the productive capacities of the present to maintain the boundary conditions of the planet such that utopia may be possible within it?

The climate emergency situates utopianism with a new problem—the need to maintain the conditions of its own possibility not only within human thought and practice but in terms of a livable ecosystem.

There is a lot of concern at present to imagine alternative futures, to produce radical imaginaries that critique the present and figure

alternative ways of living. The effort to grapple with solarities is one example of this. But there is now a concern with overproduction of futures, too many futures created, consumed, and discarded, going nowhere. The future not as colonized by the present but as negated through becoming transformed into futures as commodities. This overproduction is antagonistic to solarity. Solarity requires, instead, stories that take root. Stories that are not statements but essays, tries, gestures, that are returned to and elaborated, time and again. Stories that try and fail and try again. Stories to which we commit and which we allow to change the way we live now, which in turn reveals the limitations and failures of the stories and gives us the means to rework them.

This page intentionally left blank