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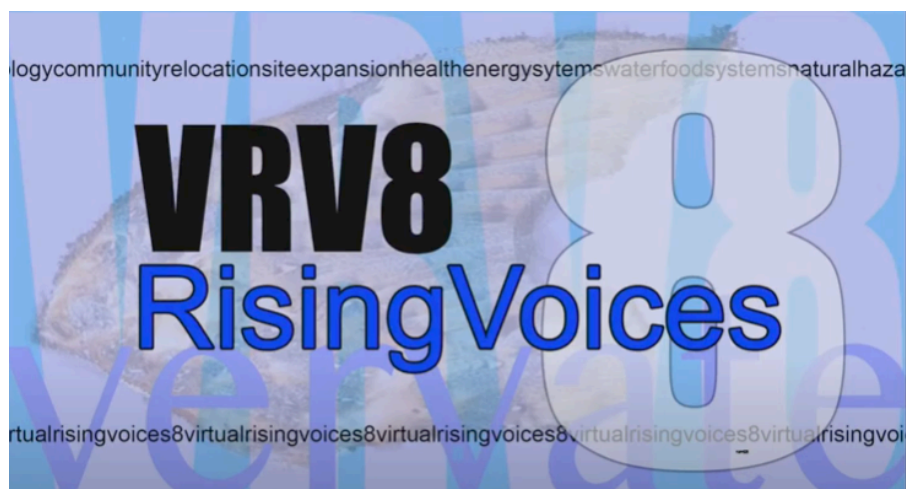
# The Rising Voices Center for Indigenous and Earth Sciences



## Virtual Rising Voices 8 (VRV8) Workshop

### Energy Systems Sessions

July 2020



## BACKGROUND AND INTRODUCTION

The [Virtual Rising Voices 8 Workshop Series](#) (VRV8) Energy Systems Sessions took place in July 2020. These virtual sessions offer the opportunity for everyone to speak, engage, and ask questions in smaller group settings similar to what would occur in person at the Rising Voices annual workshops. VRV8 is possible due to the technological broadcast network capacity developed by [Lomikai Media](#) and the [Olohana Foundation](#), who had the foresight to develop this capacity over the last few years to prepare for the very situation we find ourselves in with the novel coronavirus and COVID-19. This type of disaster preparedness has enabled our ability to be socially connected while at a physical distance.

[The Rising Voices Center for Indigenous and Earth Sciences](#) (RV) facilitates intercultural, relational-based approaches for understanding and adapting to extreme weather and climate events, climate variability, and climate change. RV supports a growing network of Indigenous, tribal, and community leaders, atmospheric, social, biological, and ecological scientists, students, educators, and other experts from across the United States, including Alaska, Hawai'i, and the Pacific and Caribbean Islands, and around the world. It functions as a boundary network among diverse individuals and knowledge systems, and fosters relationship building based upon mutual trust and respect. It acknowledges the inherent value of Indigenous knowledge systems and Indigenous science, including but not limited to traditional ecological knowledge and adaptive practices and processes, honoring them equally with Earth science.

RV's mission is to center Indigenous knowledge systems in the Earth sciences for more innovative responses to extreme weather and climate change. The vision is more diverse and inclusive Earth sciences to drive a climate-resilient and just world. This includes envisioning collaborative research that brings together Indigenous knowledges and science with Earth sciences in a respectful and inclusive manner to achieve culturally relevant and scientifically robust climate and weather solutions. In doing so, RV seeks to advance science; remove the boundaries between science and society; and create innovative partnerships among collaborators with diverse disciplinary and cultural backgrounds to support adaptive and resilient communities. RV's core objectives include: assess critical community needs in relation to the impact of climate and weather extremes; encourage Indigenous and other youth to pursue a career at the science-Indigenous knowledge interface; and pursue joint research aimed at developing culturally, socially, and economically optimal plans for community action towards sustainability. RV is co-administered by the University Corporation for Atmospheric Research/National Center for Atmospheric Research ([UCARINCAR](#)) and the Livelihoods Knowledge Exchange Network ([LiKEN](#)) in partnership with Haskell Indian Nations University, the Indigenous Peoples' Climate Change Working Group, and the National Oceanic and Atmospheric Administration's ([NOAA](#)) Office for Coastal Management.

## VRV8 ENERGY SYSTEMS PANEL SESSION

The VRV8 Energy Systems Panel Session took place on July 14. The recording of the session can be found [here](#). The session included speakers considering a systemic perspective to energy justice and equity, focusing on the cultural foundations, policy, design, education, science, and partnership components, by answering the following questions:

1. How do we weave policy, science, and practice together to create systemic change for energy systems?
2. What are the kinds of policies needed and what does the work look like at multiple levels to enact just and equitable energy policies and practices?

The panel session was co-organized and facilitated by Dan Wildcat (Haskell Indian Nations University) and Ciarra Greene (Northwest Indian College). The speakers included Faith Spotted Eagle (Yankton Sioux Nation), Merv Tano (International Institute for Indigenous Research Management), Lydia Jennings (University of Arizona), and Phillip Chavez (Trees, Water & People).



Heather Lazrus (NCAR) provided a short introduction, and Dan Wildcat moderated the session, opening up with introductions to the panelists and posing the framing for the session, focused around the interface between policy science and practice as it relates to energy, and particularly on “the issue of energy equity and justice in the systems that we think must be developed in our Native nations in this larger landscape of the United States of America and really across this Mother Earth.” In framing the conversation around equity and justice, the group aimed to tie together the complicated relationships between education, economics, policy, science, community, revitalization, and rejuvenation.

### **How do we weave policy, science, and practice together to create systemic change for energy systems?**

Faith Spotted Eagle is a citizen of the Yankton Sioux Nation, Tribal Elder, and wisdom keeper. She is currently working with the tribes along the Missouri River on how to do ecological and cultural restoration. She opened the conversation by reflecting on some of Dan Wildcat and Vine Deloria Jr.’s work discussing how biological and cultural diversity are one and the same because cultural diversity is patterned after things in nature that are constantly teaching us lessons, but we cannot learn those lessons if we are stuck in housing areas due to not having a car, resources, or the academic background needed to be engaged. Faith expressed that it is

these instances that lead us back to grassroots and how before we had elected tribal leadership that was built on a colonial basis we had our grassroots people. Thus, though elected tribal officials are necessary and we still have that governance system, the difference is that we have become dysfunctional and colonialism has isolated us from each other. So, we are now “relearning that [and] revisiting how to be a good relative, and so [it is] taking us to the good relative, to the earth” and to protecting the water. Faith talked about how her home along the Missouri River was taken by the [Fort Randall Dam](#) in the 1950s, through acts of legal genocide which historian Michael Lawson has discussed in the book *Dammed Indians: Pick-Sloan Plan and the Missouri River Sioux, 1944-1980*. This dam was the reason that Faith began to fight for and protect water at the age of 12-years-old. She recalls sitting along the Missouri River and her dad telling her, “My girl you're going to have to do something about this’ and I told him, ‘I'm only 12, what am I going to do?’ and he said ‘you'll figure it out.’” And so, over the years she has touched based on many skills that go back to culture and biological diversity and has realized that they are “the two key things that tie us together.”

Faith described her involvement in various organizations and how those partnerships and relationships have emerged. When speaking with the [Oceti Sakowin Power Authority](#), a corporation composed of their own people, which has taken energy projects into their own hands, she addressed the need to engage with the elders whom she had noticed missing from the conversation. She explained that because Oceti Sakowin was working with the great power of the world – the wind, *Tetia* – they needed to have cultural understanding before dealing with this power. Being part of the [American Indian Science and Engineering Society's \(AISES\) Council of Elders](#), Faith suggested to Oceti Sakowin having “a Council of Elders so they could connect with the powers of the world through a cultural frame and land,” a suggestion which they welcomed. From these collaborations, Faith has been advocating for the past 12 years to stop the [Keystone XL Pipeline \(KXL\)](#). Learning from that process and from Standing Rock, she has noticed that often times we do not know everything about our surroundings; she has been working to know everything along the Missouri River because that is their lifeline. As a founding grandmother of the [Brave Heart Society](#), Faith has led efforts to develop a cultural bioregion focused on working towards co-managing a 150-mile stretch of the Missouri River. Faith emphasized how much can be accomplished from the grassroots level by crossing borders and working with elected officials.

Merv Tano, Native Hawaiian and President of the International Institute for Indigenous Resource Management, spoke about framing Rising Voices as a boundary organization for tribes, Indigenous peoples, universities, government agencies, and international and other NGOs. A boundary organization is a way of “organizing ourselves so that we can deal with that interface between science and policy and more importantly, as Faith was talking about, science, faith, policy, and culture.” Considering policy in the context of energy, Merv commented how we must initially deal with policy by discussing the meaning of it before moving forward. From Merv’s perspective, policy is a statement of intent and what we want from it when it comes to energy is for it first “to be just. [And] two, and really perhaps even before being just it has to focus on nation building.” It is an existential issue over “who has control, who decides what we’re going to study, how we’re going to study...It’s not just about producing knowledge so it has to be about

nation building.” Following from this, it must also be rooted in terms of Free, Prior, and Informed Consent (FPIC) because that will allow for many more opportunities to open up.

In working with the Council of Energy Resource Tribes, Merv explained they are not really talking about Indian or Tribal Energy, but rather reservation-based energy, which constrains a tribe’s vast connections down to minimal acres. As we develop policies and programs, we must think about how the interests and connections of tribes have been limited to the little space given to them and “we ought to look in this kind of expansive way of reclaiming our spaces.” Relatedly, we must consider the circular economy, which is an idea about figuring out what we want to have so that as we develop and use energy resources, “we’re doing it in a way that is not going to generate additional waste. That we’re going to be able to in a sense reuse, recycle, and minimize waste.” Merv concluded by turning again to the centrality of nation building, and noting that, “building a nation is not about having a constitution. It’s not about having rules and regulations, a tribal council. It’s about people agreeing that this is important for us as a people and if we can’t do energy that way we are never going to do tribal energy.”

Ciarra Greene, a citizen of the Nez Perce Tribe, Indigenous environmental scientist, and faculty at Northwest Indian College – Nez Perce, picked up from Merv’s comments to reflect on community and the importance of partnerships for just energy systems. Ciarra began by considering the current status of energy and how the result of resource extraction and exploitation has been the material and institutionalized dependencies imposed by colonial frameworks. The result of viewing and engaging with energy from an extraction relationship is evident in communities that lack access to equitable energy.

“[W]e experience energy deficits, we’re disproportionately experiencing the impacts...it’s important to continue to bring that to the forefront, that this is extractive, exploitive, and it’s not part of our cultural ways as Faith was talking about...Our cultural values [have] ... sustained this earth for millennia and they’re founded in the reciprocal relationships, the relationships that are founded in responsibility to the past, current, and future generations and it’s based with the mutual respect for our human and non-human counterparts, those are honored.”

Ciarra continued explaining how the colonial shift away from these values is apparent in the framework of current energy systems and as has been brought up in this and previous VRV8 sessions, knowing our history and where we came from must be considered before delving into the “what comes next” and “where do we go from here” questions. She shared an anecdote from her tribal history, “On May 4th, 1877, during the Nez Perce flight from the US government, Too-hool-hool-zute, Nez Perce Chief stated, ‘I belong to the land out of which I came, the earth is my mother.’...If you’ve seen or visited our homelands, or heard our stories that describe our traditional places, you would understand the complexities of relationships, our inherent responsibilities, our reciprocal nature, and that we hold the utmost respect for the sanctity of our homelands and our plant and animal relatives.”

Regarding education and energy systems, “it's not enough to understand thermodynamics and carbon sequestration, photovoltaic cells...we absolutely must deepen and appreciate our understanding of power and place.” Referencing Wildcat and Deloria Jr.'s book *Power and Place: Indian Education in America*, she expressed that although “formal, institutionalized education is important, [it is] more importantly understood that what we need is people with inherent relationships with the land, with the lived experiences that span the millennia” and translating that into actionable policy and science. Ciarra's approach is small-scale and community-based because,

“That's the place of my people and our ancestral homelands and so to put this theory into practice we have to first and foremost teach within our own community the values that question the extractive and exploitive behaviors. We have to perpetuate these teachings that are interwoven into our traditional stories, we must provide these opportunities for our community to build that relationship with our homelands so then they will engage with her and recognize her as their mother.”

Ciarra and a colleague, Maggie Picard, developed a community-based program, *Nimiipuu'neewit*, meaning “lifeways of the Nez Perce.” Their initiative emphasizes enhanced collaboration between community members, the Nez Perce Tribe, local academic institutions, and local agencies (i.e. the US Forest Service and Idaho Fish and Game). The program's foundation is to promote the healing and protection of their sacred environment, a concept which is a systematically different perspective than restoration and conservation. “[Y]ou would never say ‘oh, I want to restore and conserve my mother’. You want to protect and heal your mother.” However, part of the problem is that in writing a grant, for example, the reviewers don't know what you mean when it's articulated in that way and they won't know until they are able to experience it. Thus, the *Nimiipuu'neewit* works to provide both community members and partners with the experiential learning of going out to their places across their homelands. Ciarra concluded by stating that some might say,

“Well what's this got to do with energy? This is everything that's got to do with energy. We are sustaining ourselves through these practices, we are sustaining our culture through these practices, and we are staying connected to our homelands that continues to serve us the energy that we need to perpetuate all these ideas forward...[I]t's not just about the values, though yes I think that's where we need to start, each of us are exhibiting components of education in our existence, but... how we exchange our energy, and how we honor the system of energy in which we exist should drive our conversations within our communities and with our institutional and agency partners so that the systematic change can actually be energized...Education is one thing but this experience and life is really what it is.”

Phillip Chavez, a Native Marine veteran and Colorado State University graduate, shared with the group about his work focused on solar energy with the non-profit organization, [Trees, Water,](#)



[& People](#). They develop portable solar suitcases and collaborate with Tribes and Pueblos, working with elementary, middle school, high school, and college students, and community members to build the solar suitcases together, and through this process show them how solar and renewable energy works. As part of the program, they “try to bring in the elders as much as possible, or work on the reservations, to talk about their traditional stories and... bring in that connection [of] understanding renewable energy [by] looking at the sun and looking at the land and... these other perspectives.” It is not simply about watts and amps, but rather about “bring[ing] as much cultural context into our programs as possible so that we can bridge that understanding between our cultural ways and our science ways” and bringing that idea to youth instead of the same western perspective. It is important when we teach about renewable energy that we bring in those cultural contexts because “that makes us who we are...our land is part of us. It is in our blood. It is who we are and so by bridging that communication... our youth [can understand] that they do have a place within science.”

Phillip added that the program also includes giving the portable solar suitcases to organizations and groups, such as to Hurricane Maria survivors in Puerto Rico. The solar suitcases are waterproof and have a 12-volt battery that recharges through a solar panel, and which can recharge a cell phone and power a light bulb for up to 24 hours. Phillip’s partner, Dr. Dominique David-Chavez, was able to bring some of these solar suitcases to Puerto Rico to share with communities after Hurricane Maria left many with a lack of infrastructure, including power infrastructure. Another success also developed when an engineer in the community examined the solar suitcase and was able to “create a solar-powered pump to pump water for the whole community within this rural area...[and] by introducing the solar idea they were able to have access to clean water not only for the people, but also irrigation for their farming.” Phillip concluded by adding that a lot of their work is really focused on stimulating ideas, growing from the small-scale, building on youth programs and hiring Indigenous people to work for Indigenous communities, “allowing them to build and create those things not just for the communities” but also providing funding so that the monetary aspect stays within the community.

Lydia Jennings, Pascua Yaqui (Yoeme) and Wixárika (Huichol), and a doctoral candidate at the University of Arizona Native Nations Institute and Department of Environmental Science, discussed her work focusing on mining reclamation and the restoration process, as well as consultation processes with Indigenous Peoples. Reflecting on what Phillip shared about solar energy, she has seen a lot of Tribal nations promoting solar energy as a way to shift their industries from coal and dirty energy. The Ute Mountain Ute Tribe is a great example of this, selling their solar energy excess to local co-ops, which is an important revenue generator. Nevertheless, while solar energy is an important step forward in green energy, Lydia reminded us about the importance of being “mindful that solar energy still requires metal and is still part of the extraction industry. The increase in solar energy is expected to double in the next 20 years, and solar cells require metals such as copper, zinc, cadmium, and rare earth elements such as gallium, germanium, indium, selenium and tellurium. Where are those metals going to come from?” Many of these metals are impacting Indigenous lands domestically in North America and worldwide. As such, Lydia highlighted the need to recognize,

“How Indigenous economies are dependent on the natural resource trap which stunts our communities in cycles of boom and bust based on the price of the commodity and the impacts that it has on the environmental and public health of the nations in which they operate. [For example], [t]he Navajo Nation and the Crow Nation are both heavily invested in coal mining and are examples of that and now we're feeling the repercussions as coal energy is being replaced by solar energy.”

Lydia continued by expressing how her work on land restoration was influenced by growing up near boom and bust communities seeing lands where there's still coal contamination and seeing abandoned mines on her daily runs. In choosing to look at the restoration process, the role that microbes have in recovering and stabilizing these wastes, and working with industry to understand their concerns and challenges and develop scientific methods to improve those practices, what has emerged at the forefront is that Indigenous people have to be at the table in all capacities. “As Prof. Greene mentioned, cultural knowledge holders are imperative to informing us what plants are sacred or have medicinal purposes and we need them to inform us scientists, and I prefer Indigenous scientists, in this process on how we protect and value the ecosystems that many of our communities have been disconnected from.” Lydia concluded by identifying a few suggestions moving forward, which included:

- Tribal nations and Indigenous peoples must be involved at all stages of these processes if they choose to invest in mining or extraction in their communities. They need to be involved before any land is disturbed and have a clear idea of how that land that will be used at the end of the lifespan of the mine, with most lifespans ranging from 20 to 100 years. This idea could go back to the circular economy that Dr. Tano suggested earlier on.
- Asking: Do our communities have the capacity to have advisory boards for various projects? If the answer is no, then we need to think of how education is a key to ensuring that we have capacity for that in the future and that our voices are present at all of these tables.
- Tribal nations need to have consultation guidelines built into the tribal code. This includes timelines of meeting with industry, a definition of what consultation means, what restoration means, what plants can be used or not used, and also what advice and approval means to a nation. Examples of consultation guidelines include the work of Dr. Seanna Howard (University of Arizona) alongside the Maya of Belize, and Dr. Claudia Nelson (University of Arizona) who has developed a database of consultation policies for Indigenous people that could be useful for our nations to build upon.
- Considering the different ways we can hold multinational corporations accountable in extraction. Activism has been very effective, but also looking at and using international policy and frameworks is another method. The [United Nations Declaration on the Rights of Indigenous Peoples](#) (UNDRIP) is good to highlight but it is not enforceable. Other frameworks we can learn from for protecting local communities, miners, and how to be more enforceable in policies



include the [Organization of Economic Cooperation and Development](#) (OECD), whose member companies are supposed to comply with international standards, and the [Inter-American Commission on Human Rights](#) and the [African Commission on Human and Peoples' Rights](#).

Dan Wildcat followed the speakers by bringing together some of the themes that emerged from the conversation. The first theme spoke directly to nation building and what Faith brought up in terms of relationships. Considering truly international agreements, Dan asked “[W]hy aren't we doing more among ourselves as nations, creating international agreements between the Crow and the Diné, the Lakota and the Muskogee, and the Oneida? We're nations, we need to be making treaties, we need to be making agreements and we need a whole rebirth of traditional tribal diplomacy.” The greatest contribution Indigenous thinkers can make today is “letting people know that when we talk about economic revitalization, economic growth, [and] environmental or landscape restoration, that can never be separated from an eco-cultural restoration, a reconnection of people and place.” Last but not least, Dan talked about the good and bad news. The bad news being that we have many challenges right now, but the good news is that this means there is “plenty of work for everyone if we can just focus our hearts and our minds and our communities and truly do that seven generations thinking.” Let's leapfrog the current dominant system of infrastructure development and go to the next stage, “be models of how humankind can behave. As our elder, our wisdom keeper Faith implored us, let's start conducting ourselves as mature, responsible, good relatives to the rest of life on this planet.”

Following Dan's reflections, Merv shared based on his vast experiences that one of the problems Indigenous people face in processes like the [International Council on Mining and Metals](#) (ICMM) is that even though there are small corporations who show up and do some exploration, the end goal is never that they will actually develop a mine. Rather, these small corporations “take it up to a point, basically raping the land, because they don't have the resources to do the kind of restoration or clean-as-you-go type of processes and then they sell it to the big guys, the Newmont's, etc.” We have corporations coming in to develop these mines and there are scientists working in laboratories developing cleanup methods but communities have no say in any of it. Herein is where the difficulty lies, and it is a point that both Dan and Faith raised, as these big corporations come in and “they look at it as kind of benefit sharing...What [they're] talking about is fundamentally changing our life forever, and [they're] talking about benefit sharing...And that's why I think the idea of Rising Voices as this boundary organization is so important because it brings together people who can talk about these kinds of issues at several different levels.”

Lydia added that we all have our different talents when looking at approaching a problem from a multi-disciplinary perspective and that is the reason that when she talks to the youth, she tells them,

“No matter what your interests are you're going to be important in addressing these issues...because whether you're an artist and you're bringing your art to bring attention, or make educational material or you're a lawyer and you're

looking at it from a legal perspective, you're a scientist or you're a public speaker and can bring attention and educate about Indigenous perspectives, those are all important facets.”

Lydia also added that in her scholarship she has been moving away from talking about sacred sites and instead moving towards talking about sacred ecosystems, “because the site can be built around or built under, but an ecosystem is all-encompassing and... when you do a mining process you're impacting the entire ecosystem.” It is important to ensure that we change this type of jargon in our legal and scientific writings to encompass the entire ecosystem that is being impacted by any type of extraction process. Lastly, she said “one voice is not effective at these tables. [W]e need to have multiple because, as Dr. Tano said,...one voice, they can ignore that, but when they have multiple voices in multiple layers of policy and science then they have to listen and so that's why constantly telling youth that we need them in this process, in this fight, and building up that capacity for them to make the difference is critical.”

Faith followed Lydia's comments by further discussing her work against the KXL pipeline. Judge Brian Morrison from Montana recently ruled against the pipeline and when doing so cited the [Endangered Species Act](#). Faith discussed that the citing of this Act was crucial to Indigenous communities fighting this battle because she “kept telling [their] tribe and other people, there's something here that we have to look at – the animal nation, the two-legged the four-legged, they're talking to us and we need to figure out they're leading us.” From this emerged discussion around the endangerment of the dung beetle, and the important role it plays in the ecosystem and how this finding “opens the door for an ecosystem that could be destroyed by the KXL pipeline.” She is having cultural resource people look at the dung beetle and its ties to the ecosystem. They are conducting surveys with an ethnobotanist and “making a relationship with the earth that [they have] forgotten about. We just literally have been held captive in making relationships and so we hope to develop a template that you've been talking about in this discussion.” She is currently also working with Wes Martell, a water warrior from Wind River, on developing a template of water codes similar to the current water codes for tribes in the US, but which would be used throughout the Missouri River. In regards to this, Faith brought up the question of “[W]hy can't we be doing intake that we could share water? Surplus water is Indian water. We could be sharing that all the way at the top of the headwaters to Wind River all the way down the river. [But] in order to do that we have to come out of the trauma camp that we've been held captive in and begin to think about those relationships that we had.” She ended by adding that in 2004, the Yankton Sioux Treaty Committee initiated the international treaty to protect the sacred against KXL and the tar sands, and they have had the 10 First Nations, the Pawnees, and many other tribes come together to sign the treaty as a revival. “We could do our own treaties, we could do our own unilateral agreements, and so I appreciate you Dan bringing that up because we have gone in that direction. And so, we're hoping on the Missouri River...at the end of that 10 years [that] we'll be managing our section of the Missouri River from Indigenous science.”

Dan added onto Faith's comments by talking about “the opportunity we have to take some of these very practical problems in our communities whether it's water, whether it's clean air,

whether it's pesticide[s] or herbicide[s] flow[ing] into a water system, the energy issue itself is taking these practical problems and making these the sites where we do our education.” He expressed that while education systems may not be integrating these conversations into early education curriculums, we must still take,

“These young boys and girls out into the community, showing them the challenges, the issues, and starting to teach them about how to think with all these greater cultural and social concerns, [and] how to address these in responsible ways...I think one of our strengths as we think particularly about energy is [that] when it gets right down to it in our most ancient traditions, at least among the Tsoyaha, the Yuchi people we have probably more discussions about responsibilities than we do rights. Responsibilities that we have to these relatives we share this planet with and I think that's something that we could frame a whole lot of community education around...teaching chemistry, teaching biology, teaching geography, geology, environmental science, around these relational kinds of notions of our existence.”

Merv chimed in by sharing a disappointing experience he had with the [National Institutes of Health](#) while working with the Nez Perce. Merv, alongside others, had put together a grant application that looked into the health of the community by looking at how they ate, what they ate and drank, and how the food they produced impacted their community and their generation. However, because he did not have the expertise or the jargon needed to explain their findings in westernized concepts/ideals, “one of the reviewers said... ‘this is basically nature versus nurture’ and gave it a thumbs down. [Y]et you look at what people are looking at now...they're looking at what's in your gut and how that's affecting not just you but your kids, etc.” Thus, this idea that you must be smart enough and have the necessary credentials to conduct this kind of work is shown perfectly in this example. This needs to change and those who think they are smarter than most need to “understand that perhaps if you look at the kind of research that's being reported, that there's a connection between what your auntie's saying and the kind of research that's being done. And there is a connection with the deer and future generations so it's about framing it and bringing people together. [S]o you know the point of educating people, it's not just about educating us, it's about educating the other guys.”

Ciarra also shared a discussion she had with an individual who discussed the seventh generation extensively, which she thought it was “good to recognize...but we can't just stop thinking here. We have to think ahead as well, we're [going to] be ancestors someday and I do not want my ancestral resume to read that I was part of all this mess that's going on. I want [it] to read that I was keeping this woven tie to our past and into the future.” Ciarra expanded on the lack of infrastructure in our communities and how she has been pushing to involve youth, especially middle schoolers, into these conversations and bringing them into these spaces. Given her background in education, she has noted that the best time to engage students is during middle school because after that it becomes more difficult to spark interest in them. She continued by emphasizing the importance “in letting them recognize and understand that [they] have ideas and knowledge that have not even come to the forefront...and it's our job to do this,

connect them to our ancestral knowledge and they're going to be the ones to weave that together, to like [Dan] said, leapfrog into this next generation of solutions.” Lastly, Ciarra spoke of her given name, Sapóoq'is Wíit'as, which means “thing that causes survival”. “And when I was told what it meant I thought... talk about responsibility. [T]hat's not a right to have that name, that's a responsibility to really carry that forward, and I take that seriously in the work that I do and the integrity that I try to uphold for myself, and I think that's where we need to keep pushing forward and pushing each other to uphold those values.”

Phillip agreed with Ciarra and expressed how working with her has made him see the cultural context of responsibility and the need to revitalize traditional ways of looking at purpose, “[W]orking with youth, kids they feel lost. I feel like in a lot of ways [they do] not feel connected and so we see those kids that go to the extreme of because they don't feel like what's my purpose in life?” Phillip expanded on this subject by noting that as young children in his generation, in their traditional way they grew up understanding their purpose and knowing their responsibility to their environment and to their relatives,

“We had a responsibility like [I] said to protect them and I think there's something to be said about how do we reestablish that connection for our youth to find a purpose?... I'm hoping with that purpose comes the decrease of the suicides and the different issues we see with our youth... I feel like for me growing up it was kind of like always searching for something, how do I connect, how do I [know] what's my purpose in life, what am I good at... [So] I feel like there's that connection with our traditional ways of combining that to not only our youth but also our investment in our resources of how can we rekindle all those purposes to strengthen our communities and our youth to stimulate that mind, that thought process of, ‘Okay [these are] my responsibilities to this...what direction do I need to go to become more accountable to that?’”

Lydia added that by reflecting back on last year's [Rising Voices Energy Systems breakout session](#) led by Dr. Kyle Whyte and the questions discussed on how we think about energy and how does our language talk about energy. She continued, “we have this group of people but we don't have necessarily a translation for extraction or for mining, for power grids but we have wind, water, air, land and so I think going back to those foundations as solutions, as long-term solutions going back to those original teachings, and using the skill sets we have of modern technology but simplifying it is something I am constantly looking towards in terms of energy solutions.” Thus, as Cierra mentioned and highlighted the importance of learning our own language, she is also going to back to that and learning it because she did not grow up speaking it. She is looking for those energy solutions, and linked to that is the intent of finding out how her language informs her science as someone who works in restoration ecology,

“I asked a tribal linguist what does it mean in our language for ‘a scientist’? What's a translation? He asked me, well what exactly do you do? I was telling him I worked with plants in microbes and he [said], well the translation for that is earth healer. I can't think of a better translation for the work that I do and the

meaning that it has to me...The expertise of our own systems and of our knowledge and really valuing the knowledge-holders in our community is essential to the work that we do moving forward. “

Dan ended the panel session by sharing these thoughts bringing everything together,

“[Y]ou know everything moves in a circle. Merv talked about it, Lydia talked about it, Ciarra talked about it, everyone talked about it, this idea of regenerative economy, circular economy. I think for energy that’s really the key you know the energy that we are going to try to facilitate or co-create. I think at the end of the day we just want to make sure that we haven’t taken life away or destroyed something but that in fact we are rebuilding something, as we’re doing it. [I]t can’t be this extractive, exploitive, destructive process...One of the takeaways I have is I think we’ve all talked about it there’s a lot of work for everyone to do... that’s the good thing about getting together. [A]s our brother Kalani says, a lot of minds are always better than one mind and that’s what we have here. Let’s bring good minds together.”

## VRV8 ENERGY SYSTEMS WORKING GROUP SESSION

Building from the [Energy Systems Panel Session](#), the VRV8 Energy Systems Working Group Session ([part 1](#), [part 2](#)) on July 24 was designed to continue the conversation on how we weave policy, science, and practice together to create systemic change for energy systems, and in the context of Rising Voices, the collaborations and partnerships needed and called for to weave these varying strands together to support just energy systems.

Hank Fergerstrom (Na Kupuna Moku O Keawe) opened the session by sharing a chant, which he explained talked about “a great change that’s happening in our world. [I]t’s a prophecy chant and it says that we are calling down our ancestors from above and below and we will rise up and we will all join hands together and we will lock in this light.”

Heather Lazrus (NCAR) and Julie Maldonado (LiKEN) proceeded to do a short introduction to today’s session and its purpose, and Dan Wildcat (Haskell Indian Nations University) followed by providing a short summary of the [2019 Rising Voices Workshop Energy Systems Working Group](#) conversation, leading up to this most recent working group session.



He reflected on the underlying element that all the participants spoke of – the systemic change needed in energy systems. In addition to this underlying theme, there were also four main themes that emerged. The first one considered, “in our Indigenous ways of looking at the world and understanding the world not as resources. They are made up of relatives. So, we look at the land, the air, the water, the life, the fish, the birds,

the plants, the animals, as relatives and that relational framework, that very complex set of relationships that we engage in,” is an appropriate way to understand energy. Secondly, there was a lot of discussion about what it means to have a just transition to a renewable non-carbon-based energy system. Part of this conversation focused on the challenges in thinking about how a new energy system could affect people “who might be displaced from carbon energy and more extractive kinds of energy jobs in the economy. [W]ill there be jobs for them in this new non-carbon economy, this renewable energy economy?...it's part of the responsibilities we have to...our other human relatives to make sure that everyone comes along, so this idea of justice again.” Third, the importance of having Indigenous voices at the forefront of these solutions, “To really play...an important role in helping shape the way we're going to create a more just world.” Thinking in terms of relatives, relationships, and our responsibilities, which inevitably lead to concentrating on justice. Lastly, the fact that the world we live in is still very much framed in a colonial framework, “a colonial existence many of us face daily and often working within a system of capitalism that's very invested in extractive activities.” And so, Dan concluded, the best place to start is on the ground, in our communities and think about the kinds of economic systems that will support a just transition in our energy systems.

Ciarra Greene (Northwest Indian College) provided a brief report-out on the panel session, and how some of it, such as economy systems and looking at our Indigenous knowledge for answers which Dan spoke of, was also reflected in this most recent session. She thanked the panel participants Faith Spotted Eagle, Merv Tano, Phillip Chavez and Lydia Jennings for their shared knowledge. Ciarra pointed out Merv's comment of how Rising Voices serves as a tribal boundary organization and how it does this by “serving [not] just for tribes to agencies, or Indigenous people to agencies but also within and across universities, government agencies, and international NGOs.” Faith gave a “strong foundation in the cultural context of energy systems, she touched on the tie between biological and cultural diversity, noting that cultural diversity is patterned after things in nature that teach us time and time again... and as Dan was stating, it's really our responsibility to learn and to listen to those lessons so really at the foundation of that, of us addressing that question was the need for cultural understanding.” On the question of the kinds of policies needed and what it looks like to work at multiple levels to enact just and equitable energy policies and practices, Merv discussed the importance of reclaiming our spaces. Furthermore, having rules and regulations and perhaps even tribal councils may not be what should be central to nation-building, but rather it's the people and community themselves that must have a voice and be considered throughout the entire process. The following questions emerged:

- Where are our elders?
- Who is speaking for the non-human relatives?
- Is there holistic consideration from beginning to end through the process?

Ciarra continued by bringing up the importance of recognizing how our participation affects the economy, especially when considering a circular economy in its continual cycle. Lydia described the impact of extractive industries as not just environmental but also the effects of health and wellness of our communities, our economies, and our social well-being. Lydia also talked about



utilizing naturally occurring microbes to recover and stabilize waste from mine tailings, and how that goes back to the concept of a circular economy, which Merv had introduced as well, as we try to reduce our waste as cycles continue. The idea that what is needed at the forefront of our education within and outside of our communities is “honoring where we are and education founded in our cultural values” was also brought up. Lastly, panelists shared some of the projects they have worked on, which included Phillip sharing about his solar panel suitcases and how he was able to share this with Puerto Rico communities after Hurricane Maria. “So, it’s all connected right, and energy is so much at the heart and center of all that we’re approaching. [F]rom the phenology perspective and relocating communities, energy is very much part of those conversations.” With this last reflection, Ciarra led the participants into the two breakout working groups, where the following questions were discussed:

- How do we weave policy, science, and practice together to create systemic change for energy systems?
- What are the kinds of policies needed and what does the work look like at multiple levels to enact just and equitable energy policies and practices?
- What are the collaborations and partnerships needed -- and how can Rising Voices as a boundary organization support such collaborations -- to weave together the separate policy, science, and practice strands to support just energy systems?

## **BREAKOUT SESSIONS**

For the breakout group discussions, participants were in two groups, with Dan Wildcat and Ciarra Greene as the co-facilitators for each group. Within Ciarra’s group, one of the major themes that emerged from the conversation was the need to empower communities and ensuring that their voices are heard and included in the decision-making process. Phillip Chavez was one of the first to chime in and discuss how their grassroots work has been successful in finding people in the communities that have a voice that the community listens to. He mentioned how important it is to be aware that each community is unique on tribal reservations and how critical it is to take that cultural context to inform the western context and change policy. Simona Perry (Pipeline Safety Coalition) added to this by expressing that when we’re talking about energy systems and systemic change, we must also address the ethical implications, what that means now, and addressing the past and the future. Ciarra also added to these points by enhancing the role that communities play when creating bridges between tribal leadership and institutions, and the collective impact that can be accomplished from these relationships.

Similar themes emerged in Dan’s group, though focusing more on the aspect of how the institutions can and should act to make that systemic change. Merv Tano talked about how science programs are good but also noting that when it comes to Indigenous communities, they do not support nation building and if they cannot understand the centrality of nationhood and nation building, then they are missing the point. Paulette Blanchard (University of Kansas/UCAR) added the importance of needing to rethink the following: why do we need energy and what are we producing energy for? Paulette explained that answering these

questions is important because in order to reimagine different ways to create infrastructure, we must first understand the current systems and how they profit and build economic prosperity off these energy systems, which are exploitative at the core. She added the challenges of colonial powers and government institutions spreading misinformation about wind and renewable resources as an excuse not to have these in their regions, and how this then leads to companies charging extra to pay for the infrastructure as well as the regular prices to produce the renewable energy. When faced with these challenges and colonial powers at play, how do we come together to create a solution?

The answers to the above question were varied amongst the groups. Some participants, including Phillip Chavez and Ciarra Greene, returned to the need to build collaborations with youth and elders, and continuing to build that intergenerational knowledge to find answers to these questions. Youth are important because they will be the next generation to engage in these issues and also the ones we are working for to give a better future. Elders are important because they hold knowledge from past ancestors and they can provide answers to how things were done before, the infrastructures in place, the history, etc., to be able to use that knowledge to continue moving forward. However, others also noted the challenges needed to be overcome within tribal and Indigenous communities. Dan mentioned, for example, how when we start looking at tribal governments and encouraging them to think differently about things, immediately there is this tendency among departments in tribal governments to look outside at larger entities and utility companies. How do we get tribes to stop being essentially export processing zones for US energy? This goes back to a point brought up by Merv Tano during the panel session when he mentioned how oftentimes communities no longer see the energy systems in place in their lands as theirs and as such, no longer think of how energy systems were theirs to begin with and should return to being theirs. On this, Dan suggested that this is why nation building is so important. Exercising sovereignty by holding energy companies accountable. Dan called for the continued need for a truly Indigenous-grounded research institute in the US, a place where we're looking at things with our ancient wisdom, our epistemologies and can start doing our engineering and design work.

Other major topics discussed included leveraging the work of others, a point brought up by Patrick Barnes, and the aspects of circular and regenerative economy, which had been introduced during the panel session by Merv Tano. Patrick wondered if the group had considered leveraging the work of others such as the [National Environmental Justice Advisory Council](#). Though their work is largely geared towards policy, it might be good to look at the intersections of what they are doing in energy to see how we could use a similar framework to power the work of the communities and organizations who are part of Rising Voices. Next, the idea of circular and regenerative economy were discussed in terms of energy consumption and production. Merv Tano added that energy is financing, engineering, construction of infrastructure. We have to be talking about more than just production, and include the rest of the intersections of which energy is a part. Chris Farley (US Forest Service) added to look at places where there has been success in these areas. For example, circular economy was strong in Indian Country but it has only recently begun to be seen in forestry and sustainability as a whole. Tribes and Indigenous voices have credibility on these issues, to shape larger

discussions and we need to look at the successes of other communities, such as that of the White Mountain Apache showing the US Forest Service evidence of how they have managed their forests and thus causing a shift in that policy framework, to figure out how to leverage this work and note what examples can be models for national conversations to move bigger things forward. These issues are connected, as are many of the others discussed, and it is important to continue making these connections and noting how we can learn from them and apply them to the work we are doing.

The group reflected on how it is important to develop a proof of concept considering how place-based policies intersect with Circular, Regenerative, Feminist Economy frameworks and analysis, and as Kristina Peterson (Lowlander Center) articulated, proof of concept with circulator and regenerative way of regrowing relationships. Janene Yazzie (Sixth World Solutions) encouraged the need to map out all necessary components for participating in renewable energy projects; not just solar panels and grids, but also opportunities in a place-based approach to redefine, reshape sovereignty and cultural framings and understandings from environmental impact statements to ways that we need to be aware and prepare to engage with communal life. As Janene articulated, these principles must be rooted into more place-based and concrete frameworks and comprehensive, holistic understanding that work for communities and ecosystems. Merv proposed that we need to consider what to do from material science side of things and identify environmental impacts, with contributions that can be made in material sciences looking at traditional methods and design features, which, as Dan suggested, draw on intergenerational knowledges. Dan put forward the importance of proposing new ways to create healthier, responsible energy systems and doing demonstration projects in housing, food systems, housing, water systems based on our understanding of the world and energy systems.

## **BREAKOUT GROUP REPORT-BACKS**

Following the breakout sessions, all participants returned to the main session where Dan Wildcat and Ciarra Greene provided summaries of the main topics that emerged from their breakout groups.

Ciarra talked about how one of the main topics that emerged first was a discussion about leveraging the work of other people and groups, “Not just within our Rising Voices group or within our work groups within our tribe, state, region but really finding global examples of what it is we could be doing and leveraging the work that others have really put a lot of hours into and instead of reinventing the wheel, to take that and collaborate and leverage what it is that we want to do.” She also brought up the topic of ethical implications and power dynamics when talking about wanting to change energy systems, and of the need to start addressing those ethical implications and power dynamics especially within the scope of cultural grounding and foundations. The conversation also touched on policy and sovereignty and about really having grassroots efforts be the ones lighting the fire to start these changes. She added that,

“The rights of nature [are] something I think a lot of us might be familiar with but we haven't really seen it implemented to the degree that might be able to make significant change. I know our tribe just passed a rights of change resolution for the Snake River in our homelands [and] [w]e are seeing how does that push forward and that is an innovative way to make our cultural foundations and understandings acceptable and acknowledged at a policy level.”

Lastly, Ciarra touched upon talking about the relationships and collaborative efforts that we have and how these are not just transactional relationships and collaborations,

“Be transformational everyday not transactional. And I think that's something when we talk about weaving in policy, science, and to see this as change this is something we can do. Especially with our Rising Voices families, let's really push ourselves to be transformational with each other. Let's build those relationships that are going to be transformative for our communities and not just transactional.”

Dan began by starting where the group ended, as one of the final points that was made is “that we should never underestimate the kind of...intellectual strengths that we have among our people and the wisdom that resides with our people and the places that gave us our unique identities.” He added that one of the endeavors that is really going to be important for Rising Voices is to “keep considering how we can invest in our tribal colleges, our students, our young people and give them opportunities to be some of those future material scientists, engineers, ecologists that” will help address some of these issues from an Indigenous worldview and framework. One of the key topics that came out of his discussion group was that for “too long we've let other people tell us what they thought our strengths were and it is time for us to really draw on what we know our strength is and that is our culture, wisdom, intellectual traditions that reside there.” The notion that as we start looking at the possibility of a new administration as a reinvigorated Congress that we must prepare and be ready to step in and make some good arguments for the kinds of programs that would serve our communities well.

The group discussed demonstration projects and the money needed to allow us to demonstrate what we know in a very practical way in housing, energy, water, and agriculture. Dan clarified that this did not necessarily mean teaming up with larger, mainstream institutions but rather “let us demonstrate what we know and build on the relationships that we currently have established.” The topic of circular and regenerative economy also figured prominently, and “making sure that as we undertake what we are doing that we never forget the importance of our sovereignty, our nationhood as being critical to who we are as Indigenous Peoples.” Dan concluded,

“Rising Voices is becoming that boundary organization that helps us bump up against those larger institutions and work for change, work for real inclusion, and work for real empowerment. And I think that if we can do that at Rising Voices we've accomplished some real good work.”

Hank closed the session with the following reflection,

“The little piece I want to add in there is that our seeds have been selected very well, as you can see as we have. The difference between a good farmer and a new farmer is that the good farmer doesn't dig up the seed every day to see if it is growing. So, we have to let nature take its place and if we just allow things to happen normally then we will see the production that we really want.”

