

Fossil Energy and Carbon Management



REPORT

WESTERN TRIBAL CARBON MANAGEMENT AND CRITICAL MINERALS STRATEGIES FORUM

March 21 – 24, 2023 Moab, Utah

WESTERN TRIBAL CARBON MANAGEMENT AND CRITICAL MINERALS STRATEGIES FORUM

The U.S. Department of Energy Office of Fossil Energy & Carbon Management, with support and consultation with the United States Energy Association, Sagebrush Hill Group LLC (SHG) and Shasta Advisors LLC, held the Western Tribal Carbon Management and Critical Minerals Strategies Forum ("Forum") designed primarily for energy tribes. The Forum was held in Moab, UT on March 21-24, 2023.

The primary goal for the Forum was to provide follow-up from the September 2022 Las Vegas Forum and to introduce the U.S. Department of Energy's Office of Fossil Energy & Carbon Management leadership team and others, including National Laboratory representatives, to tribal leaders and tribal energy professionals. This engagement continued the dialogue with tribes on energy opportunities, options, and DOE leadership goals/objectives, consistent with providing prosperity in Indian Country, particularly with uses of fossil energy to further tribal development and economies. The Forum presented DOE principles in expectation to further the energy development agenda by and for Indian Country.

The secondary goal of the Forum was to have tribes provide and share their comments, thoughts, and ideas regarding tribal energy development, and to hear from DOE-FECM representatives. The materials and focus of the Forum facilitated and provided feedback and dialogue from the tribal energy community including tribal leaders, tribal energy professionals, tribal education institutions, third-party professionals supporting tribes.

Forum participants included DOE officials (Arctic Energy, Congressional & Intergovernmental Affairs, FECM, Indian Energy, Loan Programs Office, & White House Council on Environmental Quality), national laboratories (Idaho National Laboratory, Lawrence Livermore National Laboratory, Los Alamos National Laboratory, National Energy Technology Laboratory, National Renewable Energy Laboratory), local government officials (Coconino County), NGOs (USEA), representatives of industry (8Rivers, Bakken Energy, Facilitators of Innovative Education Leadership Development and Sustainability, Four Corners Power Plant, Kanata Clean Power and Kanata America, Inc.), and academic institutions (Arizona State University and New Mexico Institute of Mining and Technology). Native American Tribes and tribalaffiliated companies and organizations included representatives of Crow Tribe, Diné College (Navajo Nation), Frog Lake First Nations, Grey LLC (Navajo Nation), the Hammawi Band of the Pit River Tribe of California/Shasta Advisors, Jicarilla Oil & Gas Administration, Navajo Nation Oil and Gas Company, Navajo Transitional Energy Company, LLC, Inupiat Community of the Arctic Slope, Hopi Tribal Council, Sagebrush Hill Group (Navajo), Southern Ute Department of Energy, and the Ute Mountain Ute Tribe.



Forum Attendees

KEY TAKEAWAYS

The primary goal for the Forum was to provide follow-up from the September 2022 Las Vegas Forum and to introduce the U.S. Department of Energy's Office of Fossil Energy & Carbon Management leadership team and others, including National Laboratory representatives, to tribal leaders and tribal energy professionals. This engagement continued the dialogue with tribes on energy opportunities, options, and DOE leadership goals/objectives, consistent with providing prosperity in Indian Country, particularly with uses of fossil energy to further tribal development and economies. The Forum presented DOE principles in expectation to further the energy development agenda by and for Indian Country.

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A Tribal-only pre-meeting was held on March 21 with the key discussion points including the potential for a FECM Tribal Working Group, the multiple challenges/issues within the Tribal energy space, the need for a tribal energy consortium, and how tribes would benefit from tribal departments of energy. The forum began on the afternoon of March 22 with welcoming remarks from USEA's Mike Moore followed by a brief history of the event presented by DOE-FECM's Joe Giove. This was followed by a keynote from Mr. Brad Crabtree, Assistant Secretary of DOE-FECM and group introductions facilitated by Shasta Advisor's Daniel Cardenas. The day ended with key takeaways and a review of tribal questions and answers provided by DOE from the previous meeting in Las Vegas. This discussion was lead by A/S Crabtree and followed by another round of Q&A and open discussion.

Day Two, March 23rd, began with a session on the Potential for Establishing Tribal Energy Offices facilitated by Sagebrush Hill Group's Derrick Watchman. The rest of the day consisted of the following presentations from DOE and National Laboratory representatives and discussions thereof:

- Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization
 - Briggs White, National Energy Technology Laboratory
- National Lab Capabilities
 - o Todd Combs, Idaho National Laboratory
 - Kevin John, Los Alamos National Laboratory
 - Sherry Stout, National Renewable Energy Laboratory
 - o Roger Aines, Lawrence Livermore National Laboratory
 - o Kimberly Kanani Mayfield, Lawrence Livermore National Laboratory
 - Matching National Lab Capabilities with Tribal Opportunities
 - Facilitated by Sagebrush Hill Group's Steve Grey
- Federal/DOE Energy Engagement with Tribes
 - o Sarah Forbes, White House Council on Environmental Quality
 - Clare Magee, DOE-Loan Programs Office
 - Kevin John, LANL
 - Givey Kochanowski, DOE-Arctic Energy

The final day, March 24th, concluded the forum with a discussion of goals and deliverables for future meetings led by AS Crabtree, Derrick Watchman, and Steve Grey of Sagebrush Hill Group.

Below are the key considerations and potential actions discussed in the planning for and during the

Forum for enhancing future programming, capacity building, and partnerships.

Capacity Building Opportunities:

I. Tribal Limitations

Despite abundant federal funding opportunities, tribes continue to convey the need for resources to develop and shape tribal energy departments. Only a few tribes have energy focused programs and without funding and requisite technical assistance, tribes will find difficulty moving forward. There is a need to identify varying methods of providing assistance to tribes due to the diversity of tribes.

2. Assistance Processes:

Addressing the process to provide assistance could enhance tribes' abilities to grow and expand tribal energy development.

3. National Laboratories

Internal funding sources from National Laboratories could be of use for tribes even if only for short periods of time.

4. Tribal Educational Institution Engagement

The tribal college and university network is willing and available to assist in tribal energy development but requires additional resources. These institutions can support tribes with grant writing as it is a strength of theirs. An additional opportunity would be to create a FECM supported internship program with tribal colleges and institutions.

Organizational Structure:

1. Establishment of a Tribal Working Group and/or Tribal Energy Consortium:

The Office of Fossil Energy and Carbon Management (FECM) should support the establishment, management, coordination, and staffing of a tribal working group. A concurrent effort to establish a Tribal Energy Consortium resonated with tribes, although establishing an administrative structure would take time.

2. Future Meetings & Site Visits:

Host meetings with individuals associated with a tribal energy consortium for brainstorming and visioning to consolidate and jumpstart a unified tribal consortium. Plan, coordinate, and executive FECM site visits to Indian Country and a follow-up forum in September.

3. Rotating Locations:

Planning for future meetings in or near a variety of tribal locations reflects the commitment to involve diverse Tribes and regions, highlighting different energy challenges and opportunities across Tribal lands.

Partnership & Engagement:

1. Distinguishing Between DOE Tribal Engagement Efforts:

How best to highlight and demonstrate FECM's earnest tribal engagement efforts which is separate and distinct from DOE's Office of Indian Energy as well as Secretarial efforts. In the past, tribal leaders have expressed confusion regarding the coordination of DOE tribal engagement efforts given recent visits from the Secretary of Energy, the Indian Energy Office's tribal energy summit, and outreach from the Loan Programs Office.

2. Monthly Virtual Status Meetings:

Monthly virtual meetings would help maintain ongoing communication and transparency, providing regular status updates.

Issues for DOE Consideration:

I. Funding:

I-WEST and Rapid Response team mechanisms have not moved to assist tribes on all fronts and additional funding is required to further these efforts. Additionally, no tribes have benefited from Loan Program Office assistance to date and seems to be a grey area for tribes. That said, it's potential is acknowledged.

2. Additional Areas for Engagement

Identify key areas for support from FECM around ash/rare metals, helium, CO2 sequestration and water.

The Forum reinforced the importance of inclusive, well-planned programming and robust partnerships, highlighting opportunities for capacity building and streamlined processes to empower Tribal carbon management and energy initiatives.

The Q&A document to answer questions provided at the previous forum in Fall 2022 is included at the bottom of this document in Appendix A.

FORUM AGENDA

March 21 – Tribal Day

9:30 am – 5:00 pm	Registration	
9:30 am – 12:00 pm	Tribal Day Programming	
12:00 pm – 1:00 pm	Working Lunch	
I:00 pm – 5:00 pm	Tribal Day cont.	
March 22 – Forum Day	' I	
9:30 am – 5:00 pm	Registration	
1:25 pm – 1:35 pm	Opening RemarksMike Moore, United States Energy Association (USEA)	
1:35 pm – 1:45 pm	 Brief History of the Event Joe Giove, U.S. Department of Energy, Office of Fossil Energy & Carbon Management (DOE-FECM) 	
I:45 pm – 2:00 pm	Keynote: Brad Crabtree, Assistant Secretary, DOE-FECM	
2:00 pm – 3:15 pm	 DOE, Tribal Leadership, and Delegate Introductions Facilitator: Daniel Cardenas, Shasta Advisors 	
3:15 pm – 3:30 pm	Break	
3:30 pm – 5:30 pm	 Session 1: Key Takeaways from Las Vegas Meeting and Review of the Tribal Questions Asked and Answers from DOE Discussion Lead: Brad Crabtree, DOE- FECM 	
	Q&A and Audience Discussion	
5:30 pm – 5:45 pm	Day I Closing	
March 23 – Forum Day	2	
9:00 am – 9:30 am	 Potential of Establishing Tribal Energy Offices Facilitator: Derrick Watchman, Sagebrush Hill Group 	
9:30 am – 9:50 am	Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization • Briggs White, NETL	
9:50 am – 10:00 am	Break	
10:00 am – 11:15 am	 Session 2: Presentations from National Labs on Capabilities Todd Combs, Idaho National Laboratory Kevin John, Los Alamos National Laboratory 	

	Sherry Stout, National Renewable Energy Laboratory	
11:15 am – 11:25 am	Break	
11:25 am – 12:15 pm	 Session 2 Cont'd Roger Aines, Lawrence Livermore National Laboratory Kimberly Kanani Mayfield, Lawrence Livermore National Laboratory 	
12:15 pm – 1:15 pm	Lunch	
l:45 pm – 2:50 pm	Matching National Lab Capabilities with Tribal Opportunities – Facilitated Discussion • Facilitator: Steve Grey, Sagebrush Hill Group	
2:50 pm – 3:10 pm	Break	
3:10 pm – 4:30 pm	 Session 3: Federal/DOE Engagement with Tribes Sarah Forbes, White House Council on Environmental Quality Clare Magee, DOE – Loan Programs Office Kevin John, Los Alamos National Laboratory Givey Kochanowski, DOE – Arctic Energy Office 	
4:30 pm – 5:00 pm	Day 2 Closing	
March 24 – Forum Day	3	
9:00 am – 10:30 am	 Determine Deliverables and Set Goals Discussion Facilitators: Derrick Watchman and Steve Grey, Sagebrush Hill Group 	
10:30 am – 10:45 am	Break	
10:45 am – 11:45 am	 Determine Deliverables and Set Goals Discussion (cont'd) Facilitators: A/S Brad Crabtree, Derrick Watchman and Steve Grey, Sagebrush Hill Group 	
l I:45 am – 12:00 pm	Wrap up and Discuss Next Meeting	

FORUM REGISTRATION LIST

Name	Organization
Nick Borisow	8 Rivers
Jarl Pederson	8 Rivers
Robin Hammond	Arizona State University
Mike Hopkins	Bakkan energy
CJ Stewart	Crow Tribe
Greg Bigman	Dine College Board Member
Givey Kochanowski	DOE Arctic Energy Office
	DOE Fossil Energy and Carbon
Bradford Crabtree	Management
	DOE Fossil Energy and Carbon
Joe Giove	Management
	DOE Fossil Energy and Carbon
Gabriel Hernandez	Management
	DOE Fossil Energy and Carbon
John Litynski	Management
	DOE Fossil Energy and Carbon
Marc Willis	Management
Clare Magee	DOE Loan Programs Office
	DOE Office of Congressional and
Mathew Dannenberg	Intergovernmental Affairs
David Conrad	DOE Office of Indian Energy
Corrina Ikakoula	DOE Office of Indian Energy
	Facilitators of Innovative Education
	Leadership Development and
Doyle Anderson	Sustainability
	Facilitators of Innovative Education
	Leadership Development and
Collin Warner	Sustainability
Terry Dayish	Four Corners Power Plant
Clifton Cross	Frog Lake First Nations
Rose Grey	Grey LLC
Rosa Honani	Норі
Ken Lomayestewa	Норі
Dale Sinquah	Норі
Todd Combs	Idaho National Laboratory
	Inupiat Community of the Arctic
Doreen Leavitt	Slope
Adrian Notsinneh	Jicarilla Apache
Ouida Notsinneh	Jicarilla Apache Jicarilla Apache
Merldine Oka	

Todd Osmera	Jicarilla Apache
Ronny Petago	Jicarilla Apache
Shauna Tafoya	Jicarilla Apache
Edward Velarde	Jicarilla Apache
Jeremy Friesen	Kanata
Roger Aines	Lawrence Livermore National Laboratory
Kimberely Mayfield	Lawrence Livermore National Laboratory
Kevin John	Los Alamos National Lab
David Retherford	Mountain Ute
Briggs White	National Energy Technology Laboratory
Paul Dearhouse	National Renewable Energy Laboratory
Suzanne Singer	Native Renewables
Lena Fowler	Navajo
Bo Lewis	Navajo
Dory Peters	Navajo
Jason Peterson	Navajo
William McCabe	Navajo Nation Oil & Gas
Robert Balch	New Mexico Tech
Martha Symko-Davies	NREL
Steve Grey	SageBrush Hill Group, LLC
Derrick Watchman	SageBrush Hill Group, LLC
Daniel Cardenas	SHASTA Advisors, LLC
Demi Morishige	Southern Ute
Graham Stahnke	Southern Ute Growth Fund
Albert Doub	USEA
Michelle Littlefield	USEA
Michael Moore	USEA
Selwyn Whiteskunk	Ute Mountain
Sarah Forbes	White House Council on Environmental Quality

APPENDIX A Q&A FROM FALL 2022 FORUM

The U.S. Department of Energy Fossil Energy and Carbon Management Western Fossil Tribe Meeting – Follow Up

On September 13-14, 2022, the Office of Fossil Energy and Carbon Management (FECM) held an in-person meeting at the Golden Nugget Hotel in Las Vegas, Nevada. The meeting provided an opportunity for FECM to discuss U.S. Department of Energy (DOE) initiatives and to informally answer several questions related to the development of energy resources and carbon management on tribal lands. The following list of questions were posed during the meeting, and FECM has answered each question based on its current understanding of the relevant facts. Note: These questions and answers are not meant to bind the DOE in any way, do not create legally enforceable rights, or impose new obligations on the DOE. These questions and answers do not supersede any law, statute, or DOE order, directive, or standard. As noted during the meeting, FECM provides these answers in good faith and in the spirit of engagement. For additional information regarding FECM Tribal Outreach and future programming, please contact Joseph Giove, joseph.giove@hq.doe.gov, (301) 903-4130.

QUESTIONS AND ANSWERS

I. What does the "40" in Justice40 represent?

The Justice40 Initiative establishes a goal that 40% of the benefits of climate and clean energy investments flow to disadvantaged communities, which for too long, have faced disinvestment and underinvestment.

2. With respect to the Justice40 Initiative, what defines a disadvantaged community?

Pursuant to DOE's General Guidance for Justice40 Implementation, DOE's working definition of disadvantaged is based on cumulative burden and includes data for 36 indicators collected at the census tract level. To be considered a disadvantaged community under the DOE definition, a census tract must rank in or above the 80th percentile of the cumulative sum of the 36 burden indicators for its state and have at least 30% of households classified as low-income. Nationwide, 13,581 census tracts were identified as disadvantaged (18.6% of 73,056 total U.S. census tracts). Additionally, federally recognized tribal lands and U.S. territories, in their entirety, are categorized as disadvantaged communities in accordance with OMB's Interim Implementation Guidance "common conditions" definition of community.

3. What is the "loans-in-process" goal for the Loan Program Office (LPO) in a year?

We would like to have a tribal loan issued by the end of October 2023. There are three to five projects currently moving through the review process.

4. Will we have other meetings like this within the year, or a year from now?

Yes, FECM plans to have a Tribal energy resources and carbon management meeting in spring 2023 and another meeting in Las Vegas in fall 2023.

5. What happens from the fees generated from the loan guarantee?

By statute, the Loan Programs Office is required to recover the costs of operating the program. The fees generated from the loan guarantee offset the administrative costs of operating the Loan Program Office.

6. Which DOE program has funding for institutions seeking to retrofit and/or upgrade old energy infrastructure?

The Tribal Loan Program and the Energy Infrastructure Reinvestment Program, through LPO, can be used to retrofit and/or upgrade existing energy infrastructure.

7. Can Tribal Colleges and Universities (TCUs) apply directly for LPO loans?

No, TCUs cannot apply directly for LPO loans. Eligible Borrowers include a federally recognized tribe, including Alaska Native village or regional or village corporations; or a Tribal Energy Development Organization that is wholly or substantially owned by a federally recognized tribe.

8. How much money did Congress authorize the LPO to distribute through the Tribal Energy Finance Program?

Congress has authorized LPO to issue up to \$20 billion of loan guarantees under the Tribal Energy Finance Program.

9. LPO guarantees the loan, but does a bank need to host that loan?

LPO can either 1) guarantee a loan made directly to Tribes by the Federal Financing Bank (i.e., the U.S. Treasury) or 2) guarantee a loan made by a third-party lender. Under a loan guarantee, a third-party financial institution would make the loan and LPO would provide a guarantee to that financial institution of up to 90% of the loan value to buy down the perceived risk.

10. Is there an upsell for a financial institution's rate?

LPO cannot influence the interest rate financial institution charge for its loans. LPO can simply make the promise to up to guarantee 90% of a third-party loan.

II. Is the direct loan program financed by the U.S. Treasury?

Yes.

12. The Navajo Nation has significant helium resources. Whose purview does that fall under in the federal government?

The US government does not have a department of mining. Consequently, a few different agencies are involved with the management and distribution of helium. The Federal Helium Program is administered by the U.S. Department of the Interior, Bureau of Land Management (BLM), Amarillo Field Office, and it is responsible for the conservation and sale of Federally owned helium. The BLM also operates and maintains a helium storage reservoir, enrichment plant, and pipeline system near Amarillo, Texas, that supplies over 40 percent of domestic demand for helium. Whereas the DOE plays a role in ensuring a secure domestic supply of helium, and the USGS is responsible for mapping critical mineral deposits.

13. The amendment for the 45Q tax credit changed from \$50/metric ton to \$17, which is specific to the prevailing wage requirements or apprenticeship requirements. What is the prevailing wage and what are the apprenticeship requirements?

The Inflation Reduction Act actually increases the value of the 45Q tax credit for carbon capture projects in industry and power generation from \$50 to \$85 per metric ton of CO2 captured and stored in saline geologic formations or other dedicated geologic storage sites that do not involve additional oil and gas production. It also increases the credit from \$35 per ton to \$60 for CO2 captured and geologically stored in the context of enhanced oil recovery (EOR) or for CO2 captured and utilized to produce a product of value. For CO2 captured from direct air capture projects, the value of 45Q increases to \$180 for saline geologic storage and \$130 for EOR storage or carbon utilization. The referenced lower base credit value of \$17 per metric ton only applies if the taxpayer claiming the credit fails to meet certain wage, hour, and apprenticeship requirements in the legislation. The IRS has developed and received comment on 45Q tax credit guidance. As of 1/11/23, the comment period is closed, but the guidance has not been finalized. It is important to note that, industries in which deployment of carbon capture projects are anticipated already tend to pay at or above prevailing wages, so these requirements are not expected to present a significant barrier to claiming the higher values of the credit.

14. Does the 45Q tax credit apply to metric ton or short ton?

Metric ton

15. Can Tribes get together and form commercial projects to export our energy?

Potentially, yes. Through the LPO, "Eligible Borrowers" include a federally recognized tribe, including Alaska Native village or regional or village corporations; or a Tribal Energy Development Organization (TEDO) that is wholly or

substantially owned by a federally recognized tribe. A TEDO means: (A) any enterprise, partnership, consortium, corporation, or other type of business organization that is engaged in the development of energy resources and is wholly owned by an Eligible Tribe (including an organization incorporated pursuant to 25 U.S.C. §§ 5124 or 5203); or (B) any partnership, joint venture, limited liability company, or other unincorporated association or entity that is established to develop Indian energy resources consisting of two or more entities at least one of which is an Eligible Tribe, that has the written consent of the governing bodies of all Indian tribes participating in such organization to apply for a grant, loan or other assistance under 25 U.S.C. § 3502 or to enter into a lease or business agreement with, or acquire a right-of-way from, an Eligible Tribe pursuant to 25 U.S.C. § 3504(a)(2)(A)(ii) or (b)(2)(B).

16. Will Justice40 cover 45Q?

No. Justice40 covers federal programs and funding administered by various agencies, including the Department of Energy. It does not apply to 45Q and other federal tax credits administered by the Internal Revenue Service at the Department of Treasury, the eligibility for which is determined by Congress in statute. You can see a list of Justice40-covered programs here.

17. How does FECM determine which applicants are satisfying funding requirements?

FECM works with the National Energy Technology Laboratory (NETL) to select project applicants under particular funding opportunity announcements. Once they are selected, the applicant works with NETL to negotiate an award agreement, including the metrics for how they will meet the requirements and deliverables within the award agreement. Over the course of the project, the project team will meet with an NETL team to have their work evaluated.

18. Would the Tribes hold on to the tax credit earned?

Depending on project structure and ownership, Tribes are potentially eligible for multiple clean energy and industrial tax credits, as they are available to the owner of the relevant equipment. Under the Inflation Reduction Act, tax-exempt entities such as rural electric co-ops, municipal utilities, tribes, and state and local governments are also eligible to claim 45Q and many other tax credits as direct payments. Non-tax-exempt entities working with Tribes will have more limited eligibility, being able to claim direct pay only for 45Q (carbon capture and direct air capture), 45V (clean hydrogen) and 45X (advanced manufacturing) tax credits. Direct pay is a powerful mechanism for financing projects because it functions similarly to a cash grant after an eligible energy project is placed into service.

19. With the 20% equity requirement, how do Tribes stack funding to build up to that with other sources of funding? Can we create a grant to cover that?

Tribes that may otherwise struggle to amass equity to commence a project independently could work with an energy project developer that provides the upfront capital for a project, while the Tribe applies for an LPO loan.

I. The tribe could then use the LPO loan funds to compensate the developer for early construction costs.

2. Upon placing the project into service, the Tribe could apply for and may receive the tax credit in the form of direct pay.

3. This tax credit in the form of direct pay could then be used to pay down up to approximately half of the fair market value of the energy project – i.e., approximately half of the loan with LPO.

4. The remainder of the LPO loan would be repaid over the remainder of the loan termwith project operating revenues.