

APEC Workshop on Indigenous, Rural, and Remote Communities in Just Energy Transitions

APEC Energy Working Group

May 2025



**Asia-Pacific
Economic Cooperation**



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I. Background

Indigenous Peoples, rural, and remote communities play a critical role in promoting strong, balanced, secure, sustainable, and inclusive economic growth in APEC economies. Inclusive economic growth will require a new skilled energy workforce, increased energy access, and the ability to meet increasing energy demands. Indigenous, rural, and remote communities play respective roles in meeting these challenges and opportunities across APEC economies. Recognizing this, in 2023 APEC economies endorsed the [Non-Binding Just Energy Transition Principles for APEC Cooperation](#) and in 2024 formally established the [Just Energy Transition Initiative \(JETI\)](#) as a cross-cutting initiative to promote efforts to advance energy transitions in the APEC region that engage the workforce, private sector companies and investors, and communities in an equitable and inclusive way, including MSMEs, women and others with untapped economic potential, such as Indigenous Peoples as appropriate. This project served to support APEC economies through knowledge sharing on differing approaches, best practices, and lessons learned with the goal to potentially inform APEC economies future approaches.

II. Objectives

The objective of this project was to increase APEC members' knowledge of effective approaches, lessons learned, and emerging opportunities related to Indigenous, rural, remote communities in just energy transitions, to help economies establish and update energy transition policies and programs that support inclusion and gender equality, facilitate greater participation by women and groups with untapped economic potential in the green economic transition, advance reconciliation with Indigenous Peoples as appropriate and advance sustainable growth.

By curating various members existing experiences and practices, the workshop and this summary report are intended to help inform policy responses and approaches to build equitable, inclusive, low-carbon economies.

III. Workshop Summary

On Thursday, 15 August 2024, Canada and Peru co-hosted the half-day *APEC Workshop on Indigenous, rural, and remote communities in just energy transitions* in Room Huallamarca at the Lima Convention Centre. Approximately 40 EWG representatives from various APEC economies attended the workshop.

The half-day workshop was held on the margins of the 68th Energy Working Group (EWG68) and 14th Energy Ministerial Meeting (EMM14). The workshop convened experts from seven APEC member economies (e.g. Canada; Chile; Korea; New Zealand; Peru; Chinese Taipei; and USA) to share experiences and best practices in their respective economies on Indigenous, rural, and remote communities in just energy transitions.

Canada and Peru provided brief welcome remarks before a series of presentations from government and Non-Member Participant (NMP) experts.

I. Economy Presentation Summary Highlights

Below are summaries from each of the expert presenters who participated in the workshop.

Canada: Three Indigenous representatives from Canada presented during the workshop; one senior official from Natural Resources Canada and two Indigenous experts.

- Ms. Kimberly Lavoie: Assistant Deputy Minister (ADM), Nòkwewashk, Natural Resources Canada (NRCan) delivered a presentation that included:
 - Scene setting remarks mentioning Canada’s nearly two million people who identify as Indigenous across three distinct groups of Indigenous Peoples: First Nations, Inuit, and Métis.
 - An overview on *Canada’s Duty to Consult* Indigenous Peoples outlined in Section 35 of *Canada’s Constitution Act, 1982* as well as the 2021 enacting of the *UN Declaration Act (UNDA)* to “take all measures necessary to ensure the laws of Canada are consistent with the UN Declaration on the Rights of Indigenous Peoples.” The Act is supported by an Action Plan released in 2023 with 181 UNDA Action Plan Measures (APMs). Four of these are specific to the natural resource sectors.
 - A commentary on how a people-centered energy transition and reconciliation are mutually supportive goals.
 - An overview on how Indigenous People play important roles in all aspects of natural resource development in Canada as stewards, knowledge-keepers, rights-holders and titleholders of land that will be key to transition Canada’s economy towards a low carbon future.
 - A summary of Canada’s key actions to support increased Indigenous participation and leadership in the energy transition including:
 - *Regional Energy and Resource Tables*: A consultation mechanism to identify, prioritize, and pursue opportunities across jurisdictions for economic growth and sustainable job creation for a low carbon future.
 - *National Benefits-Sharing Framework*: An engagement process with Indigenous groups, provincial and territorial governments, and industry to identify opportunities to improve the quality and consistency of benefits that Indigenous communities derive from natural resource projects, and advance economic reconciliation.
 - *Indigenous Loan Guarantee Program*: A first federal loan guarantee program to increase access to affordable capital to facilitate Indigenous equity ownership in natural resources projects.
 - *Canada’s Critical Mineral Strategy*: An approach to provide a strategic focus area on advancing reconciliation with Indigenous Peoples.
 - *Indigenous Natural Resource Partnerships Program*: A program to improve the economic participation of Indigenous communities and

organizations in natural resource projects that support the transition to a clean energy future.

- *Indigenous Forestry Initiative and 2B Trees*: An initiative to support Indigenous-led economic development projects in Canada's forest sector, including tree planting.
- *Sustainable Jobs Legislation*: A law to facilitate and promote economic growth, the creation of sustainable jobs and support for workers and communities in the shift to a low-carbon economy through a framework to ensure transparency, accountability, engagement and action by relevant federal entities.
- Ms. Dazawray Landrie-Parker, Director, Strategy & Governance, Mokwateh:
 - Presentation highlighted the importance of place-based learning approaches to make education relevant to communities by tailoring to local environments and cultural contexts.
 - Emphasized the benefits of raising awareness and understanding in Indigenous, rural, and remote communities on the basic principles of energy, such as how energy is produced, consumed, and how it impacts the planet.
 - This knowledge empowers communities and fuels innovation.
 - Shared examples of how many northern and remote Indigenous communities in Canada face disproportionately high energy costs and infrastructure challenges.
 - Highlighted the challenges that substantial portions of household incomes are allocated to energy expenses and that unreliable supply chains continue to be major barriers to the adoption of new and clean technology alternatives.
 - Addressing these issues through collaboration and innovative solutions can significantly improve living conditions and economic opportunities in these regions.
 - Recommended engaging communities early and meaningfully in the energy transition process and related efforts as a best practice.
 - Emphasized the importance of going beyond consultation to the inclusion and involvement of Indigenous communities in decision-making and project planning processes to ensure their unique challenges and perspectives are considered.
 - Shared a perspective that prioritizing reconciliation and the inclusion of Indigenous voices in just energy transitions can benefit the energy sector but that clear and actionable pathways must be created.
 - Targeted training programs are viewed as an important step to strengthen capacity and play a direct role in the long-term sustainability and viability of new technologies.
 - Highlighted that the key to successful community engagement is an ongoing process that requires open communication between communities and partner organizations.
 - This practice is viewed as essential to develop truly inclusive projects and policies.
 - Indicated that the implementation of best practices can lead to dramatic reductions in energy costs, more reliable supply chains, technical capacity growth, and economic benefits for communities and stakeholders.

- Ms. Jordyn Burnouf, Sustainable Energy & Sovereignty Specialist, Métis Nation-Saskatchewan delivered a presentation that:
 - Provided an overview of Wah-ila-toos, a government program that funds renewable energy, capacity-building projects and related energy efficiency measures in Indigenous, rural and remote communities across Canada.
 - Presented an overview of the Indigenous Council (of which presenter is a member) that guides the work of Wah-ila-toos and shared highlights from a 2024 report developed by the council titled *Kinship and Prosperity: Proven Solutions for a Clean Energy Landscape*.
 - Key messages and recommendations included:
 - *Accelerate Indigenous leadership in Just Transition*: Emphasized that addressing climate change requires collective efforts and that Indigenous knowledge is key to achieving a sustainable and equitable future.
 - *Energy sovereignty in supporting self-determination*: Indicated that community-based power and energy decisions making positively impacts community development and healing.
 - Implement recommendations from *Kinship and Prosperity Legacy Document*: The recommendations in the Legacy Document offer innovative ideas and tools grounded in community lived experience and joint decision-making with Indigenous Peoples.
 - *Establish legacy funding*: Funding must be equitable and protected for Indigenous Peoples. There is a need to be aligned with Canada's investment priorities and climate goals. The importance of recognizing that sustainably funding for just transition will be expensive, but the costs of the status quo are greater and benefits will go unrealized.
 - *Sustained funding and advisory programs*: Emphasized the importance of maintaining Wah-ila-toos as a funding program and the continuity of the existing Indigenous Council as an advisory body that can help weave Indigenous knowledge into modern energy frameworks and policy approaches.

Peru: Mr. José Meza, Director General, General Directorate of Energy Efficiency, Ministry of Energy and Mines:

- Opened with key figures from Peru's National Institute of Statistics and Information (INEI) report *Gender Gaps 2023: Progress towards the equality of women and men* including:
 - 30.2% of women 14 or older have no personal income, up to 40.8% in rural areas, more than three times the national average of men at 13%.
 - 7.5% of women 15 or older are illiterate, three times higher than the rate of men at 2.7%
 - Women average 39.5 hours a week of unpaid activities (e.g. domestic work), versus 16 hours for men.
 - 4.5-5.4% women's participation in local government between 2019-2022.
- Presented on *eMujer: Escuela Energetica Para Mujeres*, which translates to *eWomen: The Energy School for Women*, a Peruvian training and capacity building program for rural and Indigenous women that seeks to (1) develop women's usage, management, and installation of clean technologies, (2)

transition women from energy users to promoters of sustainable development, (3) promote women's entrepreneurship, employability, and insertion in clean tech markets, (4) contribute to women's empowerment, and (5) contribute to the improvement of efficient use of energy and reduction in local environmental pollution.

- Indicated that the program focuses on training rural women as technicians and entrepreneurs for cleaner energy technologies such as photovoltaic systems and improved cook stoves, the program's Training Plan was broken into four modules (I) best practices and clean technology usages, (II) development of technical capacity in clean tech, (III) creation of micro-enterprises offering sustainable energy products/services, (IV) productive uses based on clean technologies.
- Noted that the program adopted the methodology of "Learning by Doing" and the principles of (1) people-based education, (2) promoting trust, dialogue, and respect, (3) promoting learning based on knowledge of the participants, and (4) teachers as learning facilitators.
- Raised that in its pilot phase, the program trained more than 200 women across four regions (Cajamarca, Cusco, Loreto, Puno). The program was successful in improving skills in kitchen construction and PV system installation while also improving employment prospects and entrepreneurship opportunities. Part of the School's success was linked to its decentralized approach which focused on adapting to specific local, cultural, family, language, and material contexts of the different regions in the target communities and responding to the specific situations of its participants.

USA: Dr. Cary Bloyd, Senior Advisor, Electricity Infrastructure and Buildings Division, Pacific Northwest National Laboratory:

- Presentation focused on US approaches to support communities impacted by coal plant shutdowns including retirements without repurposing, repurposing with fuel switching, repurposing to handle remote transmission, and repurposing with other commercial activities.
- Provided an overview on US Energy Transition Core Priorities; (I) Clean Energy Deployment and Emissions Reductions, (II) Quality Job Creation, Including the Opportunity for Family-Sustaining Union Jobs, (III) Justice and Equity, (IV) Domestic Manufacturing and Supply Chains, and (V) Private Sector Uptake of Clean Energy Technologies.
- Overview on key US Executive Orders, Acts, Laws, and other programs and mechanisms related to Indigenous, rural, and remote communities in energy transitions (including coal communities):
 1. *Interagency Working Group (WG) on Coal and Power Plant Communities and Economic Revitalization*: Established to support energy communities and workers. WG identified 25 communities most hard-hit by coal mine and power plant closures that were prioritized for focused federal investment.
 2. *Bipartisan Infrastructure Law (BIL)*: Includes USD750 million for clean energy manufacturing in former coal plant/mine communities, USD500 million for clean energy demonstrations on current and former mine lands, and USD1 billion for clean energy demonstration in rural and remote areas.
 3. *Inflation Reduction Act (IRA)*: 10% additional clean energy development tax credits for energy communities, USD4 billion funding in advanced

manufacturing tax credits for energy communities,” USD250 billion in loan authority for energy infrastructure repurposing/reuse/decarbonization.

4. *Justice40: Disadvantage Communities* program which set a goal for 40% of the overall benefits of certain Federal climate, clean energy, affordable and sustainable housing, and other investments to flow to disadvantaged communities that are marginalized by underinvestment and overburdened by pollution.
 5. *DOE Community Benefits Plan (CBP)*: A new application requirement to qualify for BIL/IRA funding opportunities that requires detailing how communities will be engaged and how benefits to communities will be tracked and measured. Emphasis placed on involving communities and labour stakeholders in decision making processes and understanding economic, environmental, and social impacts for the local community and workforce needs in an equitable and just transition.
- Shared best practices for guiding communities and workers through coal plant shutdowns which include: (I) early project planning (including time for economic/environmental remediation), (II) Communication and Transparency including continued community and labour engagement, (III) Funding and Economic Support including identifying funding and resources to support communities, and (IV) Stakeholders Roles including acknowledge of community and labour as critical stakeholders.
 - Key takeaways and conclusions identified three areas for assisting transition coal communities: (1) Technical Assistance – feasibility assessment for alternative issues or repower with new tech, (2) Cross-partnership Engagement and Collaboration – guide decision-making process and facilitate knowledge sharing of “lesson learned” from coal communities, and (3) Financial Assistance – access to grant/loan programs to assist redevelopment, bolster community economic security through job creation, and cover environmental clean up costs.

Chile: Ms. Adelaida Baeriswyl, International Affairs Office, Ministry of Energy, Chile:

- Presentation focused on Chile’s efforts to promote productive reconversion of cities and the importance of incorporating benefits sharing approaches with communities.
- Overview on Chile’s just energy transition related plans, policies, laws, regulations, and technical challenges of decarbonization for Chile including ambitions to increase investments to replace coal-fire generation in light of growing energy demand, build new transmission lines, and decarbonizing industries and energy uses.
- Emphasis on “building together” through working with the State, companies, investors, and communities while acknowledging the unique circumstances in each territory.
- Shared highlights from an International Seminar “Benefit sharing: Public Role in Linking energy and Local Development” held in Nov 2023 focused on building a plan to implement shared benefits in Chile as part of Chile’s Decarbonization Plan. Challenges identified were that long-term energy and transmission planning do not sufficiently consider social, territorial, and environmental variables. Noted that certain areas due to their social and cultural complexity, and environmental fragility, require a specific status or plan.
- The outcome of the seminar included recommendations organized into three categories:

1. Energy and Territorial Planning: (I) Incorporation of social-territorial variables in decision-making, (II) strengthening territorial planning instruments through early studies on transmission or energy development poles, (III) analyse instruments that allow certain areas to be protected from installation of energy projects.
 2. Generation, Transmission, and Storage: (I) Incorporate incentives in tender process to better value projects that include territorial considerations (II) Improve environmental regulations and/or create regulations for un-regulated aspects, (III) Continue to promote Human Rights standards in business-community relations, with State's role as a balancer of asymmetries and facilitator of dialogue.
 3. Community Participation in Energy Development: (I) Generate benefit sharing frameworks/standards and incentives in tenders, concessions, substation connections, and other spaces for implementors.
- Presentation provided a definition of the concept of benefit sharing “A just and equitable distribution of the benefits derived from the industry's activities in the territories, promoting local development and the well-being of the communities beyond the compensation and mitigation of the impact of the projects.”
 - Overview on levels of benefit sharing in minimizing impacts, prevention, mitigation, and off-setting through identifying (I) locations of projects and (II) assessing environment/biodiversity/livelihood/sites of culture significance. Benefit Sharing can be realized through (I) participation in values chains (goods and services), (II) profit sharing, and (III) ownership sharing.
 - Conclusion focused on identifying challenges in implementation towards benefit sharing. Some key challenges identified included: lack of public incentives (subsidies, tax exemptions, guarantees, tenders), lack of public resources, inconsistencies in state instruments (tenders and transmission planning), lack of a standardized framework or process, barriers to delivery of credit/financial loans to remote communities, as well as capacity building to strengthen communities technical and organizational skills.

New Zealand: Ms. Ripeka Goddard, Kia Whitingia Board Member, Kia Whitingia Board:

- Presentation opened with the cultural context on ‘marae’ traditional Māori villages around Aotearoa-New Zealand, which are fenced-in complexes of carved buildings and grounds that belong to a particular iwi (Indigenous nation), hapū (Indigenous sub-nation) and/or whānau (family). The Māori people see ‘marae’ - traditional Māori villages, as ‘tūrangawaewae’ – “our place to stand, our place of belonging.”
- Presentation focused on the ‘*Kia Whitingia*’ Project whose name comes from a proverb ‘kia whitingia e te rā kia puhia e te hau’ – a proposal or idea being put out there ‘to be shone upon and propelled by the sun/wind.’ The project started in 2020 with a small government grant to install solar panels on 5 marae and 20 family homes in Te Reureu Valley which led to the development of the communities first ever battery storage system in 2024 based at Te Tikanga marae.
- The project was launched by a local community leader, Graeme Everton, who envisioned a Māori led energy collective where Marae whānau can harness solar energy, co-generate to reproduce excess energy and share power to lower costs

for whānau and communities. He developed an algorithm which enabled excess energy to be sold at peak price automatically.

- The objectives of the project included reducing reliance on non-renewable electricity, reducing household energy costs thereby supporting vulnerable populations, reducing energy poverty, and improving community health and wellbeing outcomes. Another key objective was to reconnect participants to their hapū (sub-nation) and marae, by re-indigenising a sense of community and identity, and inspiring confidence in the hapū of their ability to “chart their own way.” Involved in this project are six different hapu (sub-nations) in the Manawatū-Whanganui region of the North Island of Aotearoa - New Zealand.
- The Kia Whitingia model supported a new form of community integration called the Manaaki Economy, which is seen as a means of intergenerational futureproofing for the community. The Manaaki Economy model envisioned the following:
 1. Marae-led solar generation and battery storage.
 2. Collaboration with a power company to gift, trade, and sell energy to the grid and each other.
 3. Educating whānau (families) and community on energy options and the future.
 4. Providing energy access and cost-effective energy for the most vulnerable including kaumātua (elderly community members)
 5. Increased desire of members of the community to return home as it becomes more affordable to do so.
- Since launching in 2020, the project has seen economic empowerment through energy savings ranging from 20-33%. which enabled the communities to prioritize maintenance and community projects, as well as reduced grid reliance.
- A partnership was established with OurEnergy, a local organization that seeks to ensure community-driven energy is affordable, reliable and sustainable for all. To enable precise tracking for online, data-driven, energy auctions, smart meters were installed on each of the solar panel units. The project is ongoing.

Chinese Taipei: Dr. Jyuung-Shiauu Chern, APEC Energy Working Group Representative of Chinese Taipei:

- Presented an overview of Chinese Taipei’s 2050 Net-Zero Transition plan which includes a Just Transition Implementation Pathway.
- Introduction included an overview of the 16 Indigenous Tribes in Chinese Taipei and the vast distribution of remote communities across Chinese Taipei.
- The Presentation focused on Chinese Taipei’s Best Practices in just energy transitions for its Indigenous, rural, and remote communities highlighting four specific initiatives.
- *(1) Feed-in Tariff (FIT) Rate Markup and LPG Price Subsidy:*
 1. The FIT allows government to buy electricity from renewable sources at above-market rates, promoting investment and reducing fossil fuel dependence. Extra markup rates above the FIT offered for PV, geothermal, and small hydro install in Indigenous and remote areas. Over 1862 PV installations totaling over 0.3MW, 100 cases of geothermal and hydro totalling 2.6MW.
 2. LPG price subsidy established to offset higher transport costs for gas barrels to remote areas. Subsidy ensures affordable access and reduced cost burden on locals.

- (2) *Aquavoltaics Development, Education, and Environmental & Social Review (ESR)*: To achieve 2025 target of 20GW solar PV capacity, aquavoltaics identified as a primary approach. Given potential impacts on rural environments and land use, a robust ESR approach was taken to ensure aquaculture protection, benefits to rural communities, and sustainability. Streamlined reviews and joint efforts between central and local authorities will expedite approvals and raise awareness of these zones. To monitor progress, a task force for inter-agency Joint Administrative Review was established to reconcile local voices.
- (3) *Natural Gas Supply via Pipelines or LNG Satellite Station for Remote Communities*:
 1. Pipeline solutions: Due to scarcity of population and long distance, pipeline installation deemed inefficient. A local government in Hsinchu County subsidized installation of a small-scale natural gas pipeline for a remote community to power over 70 households.
 2. LNG Satellite station: Puli Nanto County established a LNG satellite station where tank trucks can refuel and deliver to communities. This model saw over a 50% reduction in cost compared to original LPG supply.
- (4) *Subsidies for Replacing Energy - Consuming Appliances for Remote Communities*:
 1. Subsidies for replacing energy consuming appliances for remote and vulnerable groups: Subsidy program supports energy-saving renovations. Program is forecasted to reduce CO2 emissions by 62.25 tons and save approx. NTD 350,000 (approx. USD 10,000) in electricity costs annually in participating communities in Tainan, Hsinchu, Taitung, and Ilan.
 2. Improving energy efficiency for appliances in remote schools: Example of Hsinchu County Government who consolidate subsidy resources, match local enterprise capabilities, and established systematic guidance mechanisms to assist rural schools in replacing energy-saving appliances, such as LED lighting. In 2022, assisted 18 rural schools in replacing nearly 4,500 LED lights, saving approximately 270,000kWh of electricity, which equates to saving about NTD 675,000 (approx. USD 20,000) in electricity costs for the schools annually.
- Profiled Chinese Taipei's ongoing interest in supporting just energy transitions in Indigenous, rural, and remote communities by highlighted recent Chinese Taipei-led APEC EWG Project "Empowering Indigenous Social Awareness on Renewable Energy and Increasing Inclusion Sustainability for Green Energy Applications in APEC Regions." 3-day event included over 100 experts from 12 APEC economies covering a variety of topics and concluded with policy recommendations that emphasized (1) collaboration with Indigenous communities, integrating traditional knowledge, promoting sustainable land management for climate resilience, (2) advocate waste reduction bioenergy, research, and capacity building tailored for Indigenous communities, (3) support community ownership, regulatory frameworks, and cultural integration in renewable projects.
- Highlighted Chinese Taipei's emphasis that the energy transition must not leave anyone behind, be just and inclusive, and avoid negative impacts on vulnerable groups such as Indigenous and remote communities that could hinder the transition or leave people out of it.
- Profiled Chinese Taipei's Energy Smart Communities Initiative (ESCI) Knowledge Sharing Platform (KSP) which included criteria for just transition to ensure APEC

promotes the importance of just energy transition in advancing clean energy initiatives.

Korea: Dr. Woongtae Chung, Managing Director, Korea Energy Economics Institute:

- Intro provided key figures on rural communities which account for 5% of Republic of Korea's population. Roughly 87% of rural communities engage in agricultural activities while 9% engage in fishing, and only 4% in forestry. In the agricultural sector, energy consumption is primarily driven by machinery, equipment, and facilities. Electricity consumption in rural communities has increased due to the transition from petroleum-based agricultural machinery to electric-powered alternatives. Meanwhile, the fishery sector's energy demand is dominated by fuel for fishing vessels, accounting for approximately 88%.
- Overview of three key Energy Transition Support Programs for Rural Communities:
 1. *Renewable Energy Facility Support Project:* Supports for rural agricultural sectors by enhancing energy efficiency and promoting the use of renewable energy sources. Qualifying facilities include geothermal heating/cooling, waste heat re-use, air heating/cooling, and wood pellet heaters. Funding structure included supports to cover portions of projects costs through; National Treasury 30-60%, Local Government 20-30%, Loans for 10-20%, and self-funded arrangements to cover remainders.
 2. *Low-Carbon Energy Shared Facilities Project:* Supports for infrastructure installations to reduce heating costs for greenhouse farmers and large-scale integrated smart horticulture complexes, while also reducing greenhouse gas emissions. Supports provided for geothermal drilling, heat exchangers, waste heat and hydrothermal transfer pipes, solid manure fuel heating facilities, and heat source storage facilities. Funding structure included supports to cover portions of projects costs through; National Treasury covers up to 70% of installation fees and Local Government to cover 30% remainder.
 3. *Agricultural and Rural RE100 Demonstration Support:* Supports for (I) construction of renewable energy village power plants, (II) Installation of renewable energy systems in agricultural production and processing facilities, (III) Energy efficiency improvements in shared facilities, and (IV) Energy diagnostics and consulting services provided by rural local governments.
 4. Two projects were highlighted to show examples of best practices in Resident-led energy self-sufficient villages.
 - Sunshine Village, Gangwon-do: Community established a farming association in 2019 which led to USD 2.8M investment through bank loans and village funds for a new solar project. Project led to increased incomes, new jobs, and revenue generation for the village.
 - Woncheon Village, Chungcheongnam-do: Community established a new solar and geothermal heating/cooling project in 2016, which promoted a livestock waste management project in 2018, and operated a biogas plant since 2020. Solar project supplies 90% of village household energy needs and geothermal and gas projects utilize waste heat.

- Key Lessons to consider for future efforts on Indigenous, rural, and remote communities in just energy transitions included:
 1. Energy transitions can present significant benefits to rural and fishing communities.
 2. Challenges of initial investment and maintenance costs must be addressed.
 3. Active policy support is essential for optimizing energy use.
 4. Resident participation and systemic planning are key to success.
 5. Diverse financial support mechanisms are needed to foster.

IV. Key Recommendations

As recommended in the 2024 APEC Energy Ministers Statement, EWG members should continue to explore opportunities to engage in capacity building and knowledge sharing exercises at the EWG level, across APEC sub-groups, and with partnering international organizations and initiatives.

Participants and presenters indicated that additional workshops in the future would be beneficial to members and recommended that future workshops be extended for longer than a half-day session to increase the opportunities for dialogue between presenters and workshop participants. This was included among the various opportunities identified as recommendations for EWG members to explore in the future including:

- *Additional workshops, dialogues, and events:* Present opportunities to continue capacity building for Indigenous Peoples, rural, and remote communities on energy issues and to explore supportive policies and programs.
- *Opportunities to hear from experts - Lessons Learned in Stakeholder Engagement:* As key stakeholders in the energy transition, EWG members could benefit from opportunities to hear from experts from Indigenous, rural, and remote communities who have been engaged with or implemented just energy transitions policies, projects, and programs in member economies.
- *EWG Cross-Fora Collaboration:* EWG should engage other EWG sub-groups to identify existing, common, and complimentary work conducted on Indigenous, rural, and remote communities in just energy transitions and economic growth efforts such as the Indigenous Peoples Economic and Trade Cooperation Arrangement (IPETCA).
- *Building on existing APEC efforts:* EWG members should seek to build on existing and newly established APEC products, for example the Roadmap for the Formal Economy, JETI, Structural Reform Toolkit, complimentary workshops like the EWG69 workshop on Driving Trade & Investment for DC Power Systems and Microgrid Frameworks Through Public Policy Alignment, among others.
- *Establish a voluntary inventory of existing policies, programs, and best practices:* EWG members could establish a voluntary evergreen inventory of existing policies, programs, and best practices as a more detailed tool for members to access for consideration in their evolving efforts.

V. Conclusion

The workshop was conducted to build capacity in APEC economies on engaging Indigenous, rural, and remote communities in just energy transitions. In discussions following the workshop, presenters and participants indicated the workshop was a helpful opportunity to better understand various EWG members approaches to Indigenous, rural, and remote communities in just energy transitions and welcomed continued dialogue on this topic in the future to support EWG efforts under the *Just Energy Transition Initiative*.

This workshop represented one of many APEC events that took place throughout 2024 with linkages to Indigenous Peoples, rural, and remote communities in just energy transitions and the challenges and opportunities that the energy transition presents.

A number of recurring themes emerged in the presentations of best practices and lessons learned including:

- Indigenous Peoples, rural, and remote communities are vested stewards of sustainability of their own lands and communities.
- Indigenous Peoples, rural, and remote communities should be involved in decision making, project co-design, implementation, and management of relevant projects and programs.
- Just transitions should incorporate approaches that take into account the unique local, community, environmental, linguistic, and cultural context and needs of stakeholders.
- Consistent, open, ongoing communication and feedback play a critical role in building positive relationships between all stakeholders and building confidence.
- Various forms of benefit sharing can have lasting impacts by promoting skilled labour, economic growth, local entrepreneurship, and greater community buy-in and engagement.
- Capacity building and targeted training programs are critical to strengthen local capacity and play a direct role in the long-term sustainability and viability of new technologies.
- Successful projects and programs have shown a wide variety of benefits including reduced local emissions, improved health outcomes, improvements in women's participation and employment in energy, increased economic growth, reduced reliance on the grid, and increases in local energy entrepreneurship.
- Sustainable financing is a core issue in advancing just energy transitions for Indigenous Peoples, rural, and remote communities. Funding supports from various levels of government play a critical role in driving successful long-term outcomes.
- Additional research is required on sustainable financing approaches as many communities may rely exclusively on government incentives (e.g. ongoing funding, rebates, tax exemptions) for continued operation of technologies such as micro-grids.

VI. Appendix 1: Workshop Agenda

AGENDA: APEC Workshop on Indigenous, rural, and remote communities in just energy transitions

Date/ Time: Thursday, 15 August 2024 Time: 09:00-12:00 (GMT-5)

Location: Room Huallamarca – 4th floor, Lima Convention Centre

Time	Activity	Notes
09:00	Call to Order / Welcome	Peru (host economy and co-sponsor) (5min) José Meza, Director General, General Directorate of Energy Efficiency, Ministry of Energy and Mines, Peru
09:05	Scene Setting Remarks	Canada (workshop lead) (5min) Natural Resources Canada (NRCan), Senior Director, International Policy and Engagement, Christine Angelo
09:10	Presentations	<p>Presentations should focus on how the energy transitions may affect Indigenous peoples, rural, and remote communities. Format could begin with an overview of the domestic context and then outline efforts being made to minimize any negative effects followed by efforts being made to create and optimize the positive effects of the transition on these communities. (approx. 80 min)</p> <p>Canada: Present work to advance economic reconciliation and increase participation of Indigenous groups in energy resource development as well as other policies/programs to support just energy transitions in rural and remote communities + perspectives from Indigenous representatives. (30-35 min)</p> <ul style="list-style-type: none"> • NRCan-Nòkwewashk – Assistant Deputy Minister, Kimberly Lavoie • Dazawray Landrie-Parker, Director, Strategy & Governance, Mokwateh • Jordyn Burnouf, Sustainable Energy & Sovereignty Specialist, Métis Nation-Saskatchewan <p>Peru: (15 min) - José Meza, Director General, General Directorate of Energy Efficiency, Ministry of Energy and Mines</p> <p>USA: (15 min) - Dr. Cary Bloyd, Senior Advisor, Electricity Infrastructure and Buildings Division, Pacific Northwest National Laboratory</p> <p>Chile: (15 min) - Ms. Adelaida Baeriswyl, International Affairs Office, Ministry of Energy, Chile</p>
10:30	Networking Break	Networking break (20 min). Session continues at 10:50
10:50	Additional Presentations (Cont'd)	<p>Additional presentations: (approx. 50-60 min)</p> <p>New Zealand: (15 min) - Ms. Ripeka Goddard, Kia Whitingia Board Member, Kia Whitingia Board</p>

		<p>Chinese Taipei: (15 min) - Dr. Jyuung-Shiauu Chern, APEC Energy Working Group Representative of Chinese Taipei</p> <p>South Korea: (15 min) - Dr. Woongtae Chung, Managing Director, Korea Energy Economics Institute</p>
11:55	Closing Remarks	<p>Canada (5 min) NRCan, Senior Director, International Policy and Engagement, Christine Angelo</p> <p>Attendees thanked for participating and notified that presentations will be made available to attendees.</p>
12:00	Event Concludes	Delegates depart