



Energy Equity 101



**2006-2014;
~18B in federal
tax credits**

**How much was
received by:**

Richest 10% ??

Bottom 60% ??

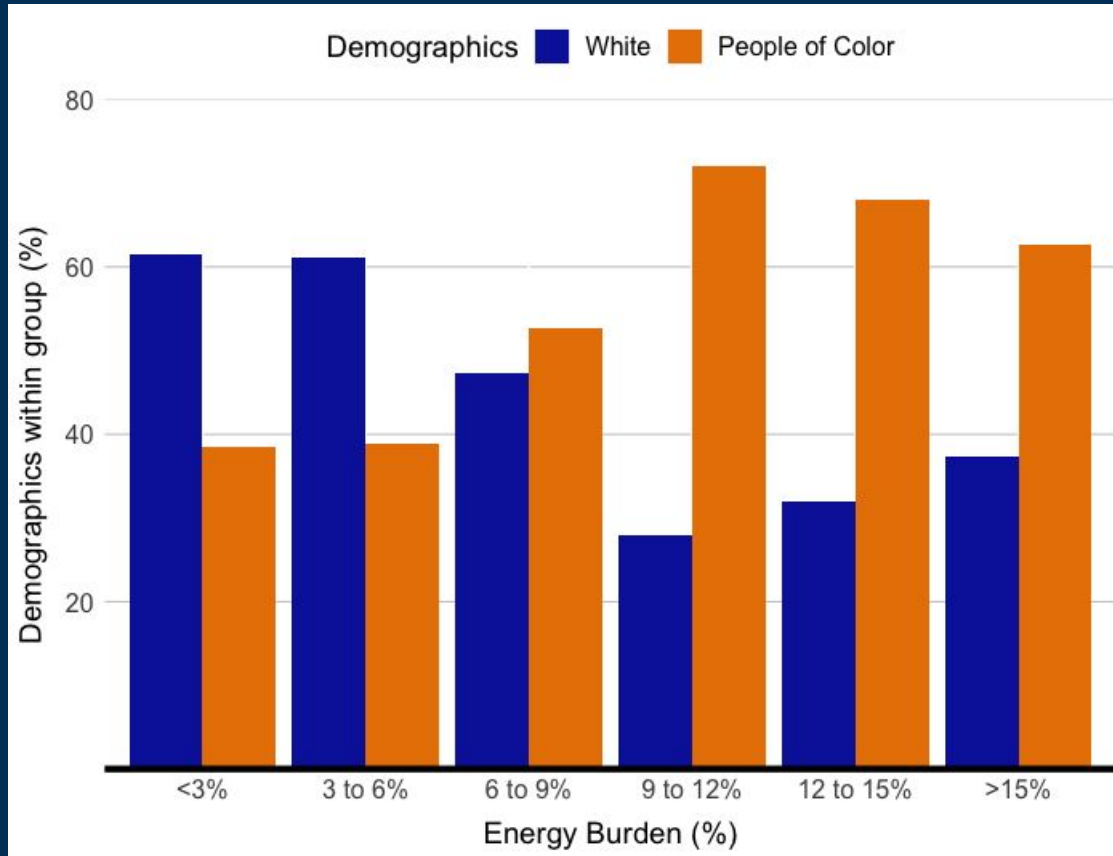


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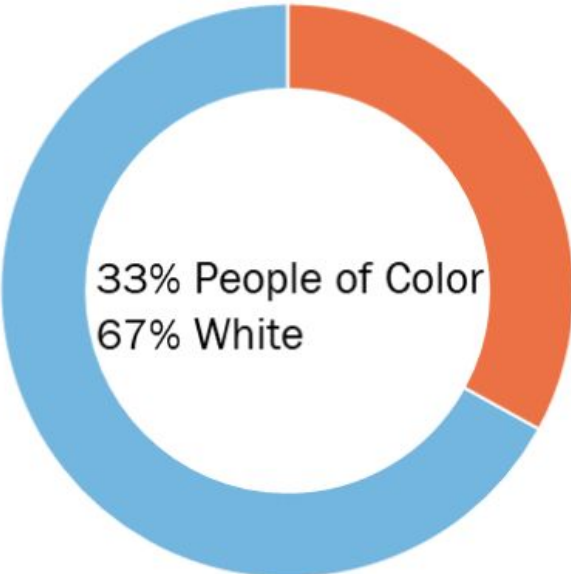
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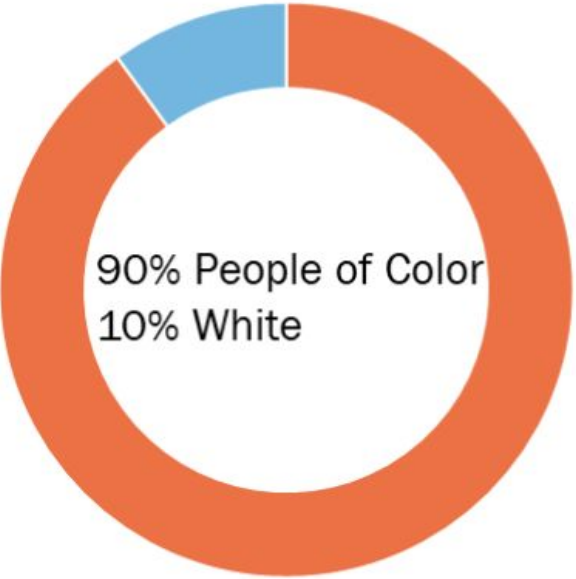
**Bottom 60% ??
\$1.8B
36X less**



Analysis of Race/Ethnicity and CalEnviroScreen 4.0 Draft Scores



10% **least impacted** neighborhoods



10% **most impacted** neighborhoods

- People of Color
- White

Figure 2. Race in the Least and Most Impacted Census Tracts by Draft CalEnviroScreen 4.0 Decile.



Pillars of Energy Equity



RECOGNITION

Who is vulnerable, who is privileged, and how?

PROCEDURAL

**Who is at the table?
What voice and power do they have in influencing planning, decision-making, and implementation?**

DISTRIBUTIVE

**Who bears the brunt of the burdens?
Who benefits and how?**

RESTORATIVE

How can we rectify past injustices caused by the energy system and prevent future harms?



Recognition Equity

Who is vulnerable, who is privileged, and how?



Common Recognition Variables

Common demographic variables

- Income / % in poverty
- Education & employment
- Race & ethnicity

Other demographic variables

- % without internet
- Linguistic isolation
- % without health insurance
- % with a disability
- Seniors living alone
- Single parent households

Climate variables

- Risk of floods, fire, heat waves, hurricanes
- Urban heat islands
- Adaptive capacity (emerging)

Pollution exposure

- Lead
- Proximity to hazardous waste
- Air, water, & soil quality

Health outcomes

- Asthma
- Diabetes
- Heart disease
- Cancer clusters
- Maternal & infant survival
- Life expectancy

Housing factors

- Energy insecurity
- Energy burden
- Age of housing
- Occupancy status (owner, renter)
- Eviction risk
- Median income of households adopting clean energy



Defining disadvantaged communities in NY

105

1

Population Characteristics and Health Vulnerabilities: Draft Indicators (25)

Income, Education & Employment

- Pct <80% Area Median Income
- Pct <100% of Federal Poverty Line
- Pct without Bachelor's Degree
- Unemployment rate
- Pct Single-parent households

Within this factor, both income metrics have 2x weight

Race, Ethnicity & Language

- Pct Latino/a or Hispanic
- Pct Black or African American
- Pct Asian
- Pct Native American or Indigenous
- Limited English Proficiency
- Historical redlining score

Within this factor, Pct Latino/a and Pct Black have 2x weight

Health Impacts & Sensitivities

- Asthma ED visits
- COPD ED visits
- Heart attack (MI) hospitalization
- Premature Deaths
- Low Birthweight
- Pct without Health Insurance
- Pct with Disabilities
- Pct Adults age 65+

Housing, Energy, Communications

- Pct Renter-Occupied Homes
- Housing cost burden (rental costs)
- Energy Poverty / Cost Burden
- Manufactured homes
- Homes built before 1960
- Pct without Internet (home or cellular)

EnviroScreen Score Data

RECOGNITION

Use the tabs above the table to filter through different elements of the Colorado EnviroScreen Score. You can select specific rows in Selection on Map` button below the table to view the location on the map.

Group Component Scores	Component Score	Environmental Exposures	Environmental Effects	Climate Vulnerability	Sensitive Population	Demographics	Community Classifications	Indicator Descriptions
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Show 10 entries

Search:

	GEOID	County Name	EnviroScreen Score Percentile	EnviroScreen Score	Pollution and Climate Burden Score Percentile	Pollution and Climate Burden Score	Health and Social Factors Score Percentile	Health and Social Factors Score
06	08101	Pueblo County	100	86.06	93.75	63.07	96.88	72.4
00	08089	Otero County	98.44	70.7	76.56	48.88	100	76.76
01	08071	Las Animas County	96.88	63.59	65.62	46.52	98.44	72.54
08	08105	Rio Grande County	95.31	61.26	64.06	46.14	93.75	70.46
04	08077	Mesa County	93.75	59.63	87.5	58.96	71.88	53.67
04	08011	Bent County	92.19	57.67	51.56	43.13	95.31	70.95

*“numbers
cannot tell
the whole
story of a
community”*



COLORADO

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Colorado EnviroScreen Storymaps

North Denver Communities

A StoryMap of the CO Environmental Justice Storytelling Project



[Arkansas Valley](#)

[Commerce City/North Denver](#)

[Pueblo](#)

Ute Mountain Ute (coming soon)

[San Luis Valley](#)

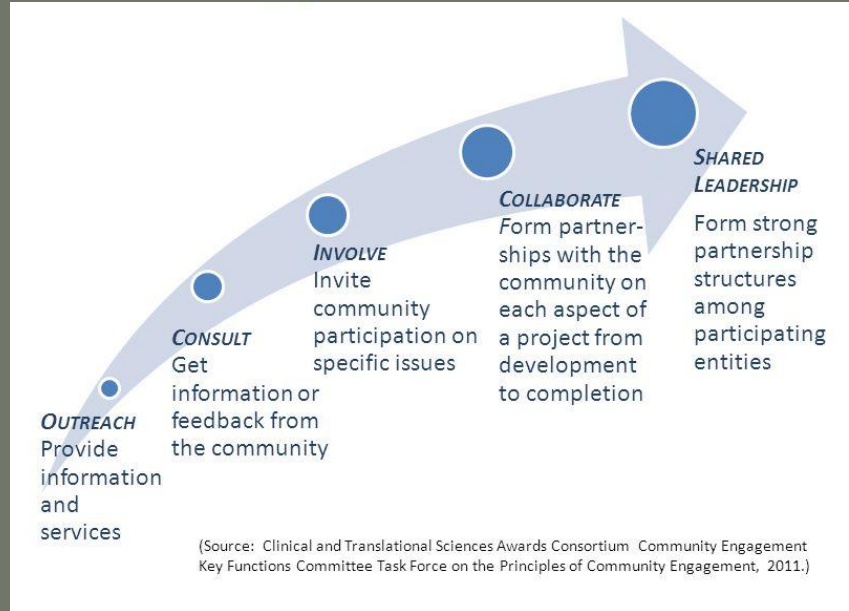


Procedural Equity

Who is at the table? What voice and power do they have?



Move toward shared collaboration and shared leadership



Plan activities that meet the needs of all



Energy Smart *Weatherization Materials* page 1 of 2

You can find the materials you've seen today's workshop and more online or at these hardware stores: Home Depot, ACE Hardware, etc.

DRAFTY WINDOW MATERIALS

- 1. Rope Caulk**
Seal gaps around windows temporarily (Reusable)
- 2. Caulk**
Seals small gaps (e.g. around door and window frame, wall joints, etc.)
- 3. Caulk "Gun"**
The device used to apply caulk
- 4. Temporarily insulate windows to block drafts. Use caulk to seal window before installing window kit.**
Try-All Plastic Interior Storms
www.cleanenergy.net.org
Reusable Storm Window Kit
www.amconservation.com

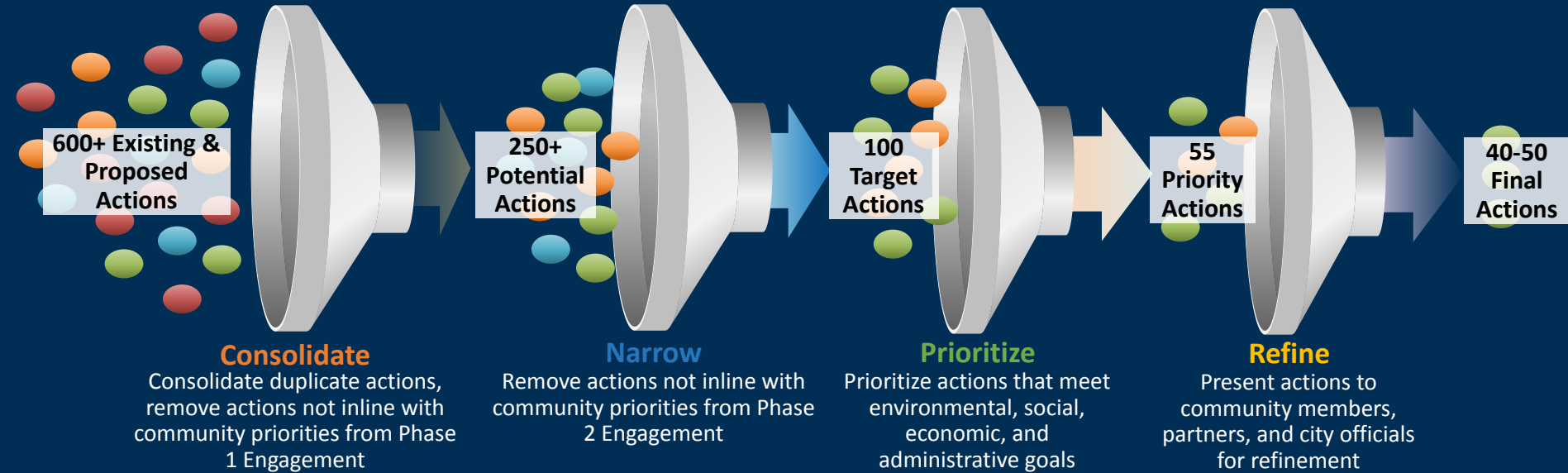
DRAFTY DOOR MATERIALS

- 5. V-seal**
Weatherstripping placed around the door frame to block drafts
- 6. Door Sweep**
Blocks drafts at the bottom of doors
- 7. Foam Weatherstripping**
Placed around the door frame to block drafts

SeeWorks Energy Smart Workbook | page 14 | www.seeworks.net

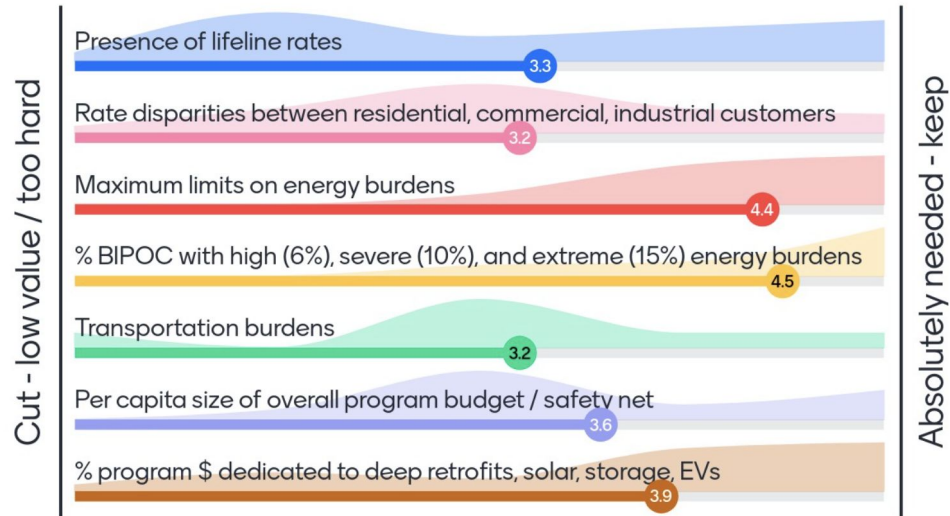


Help people locate themselves in the process

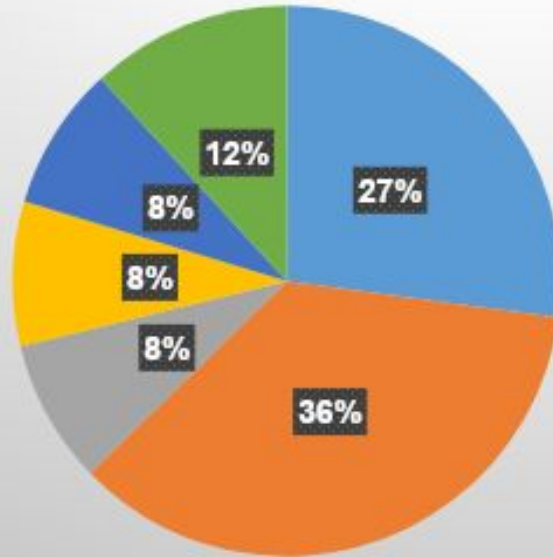


Share what we heard

How essential are these metrics for the energy affordability index?

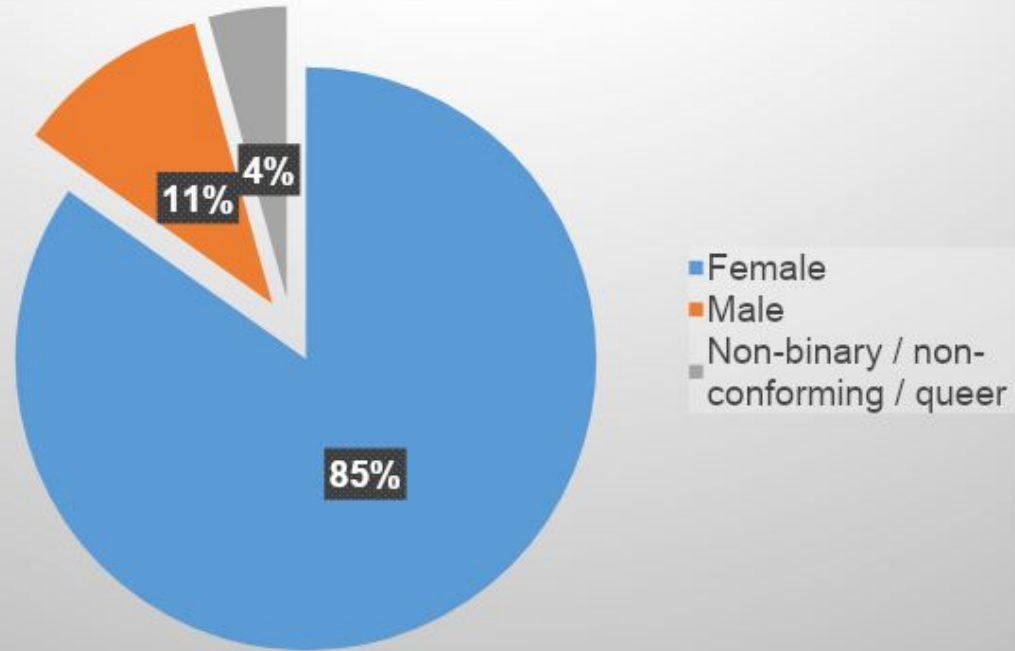


Share who participated



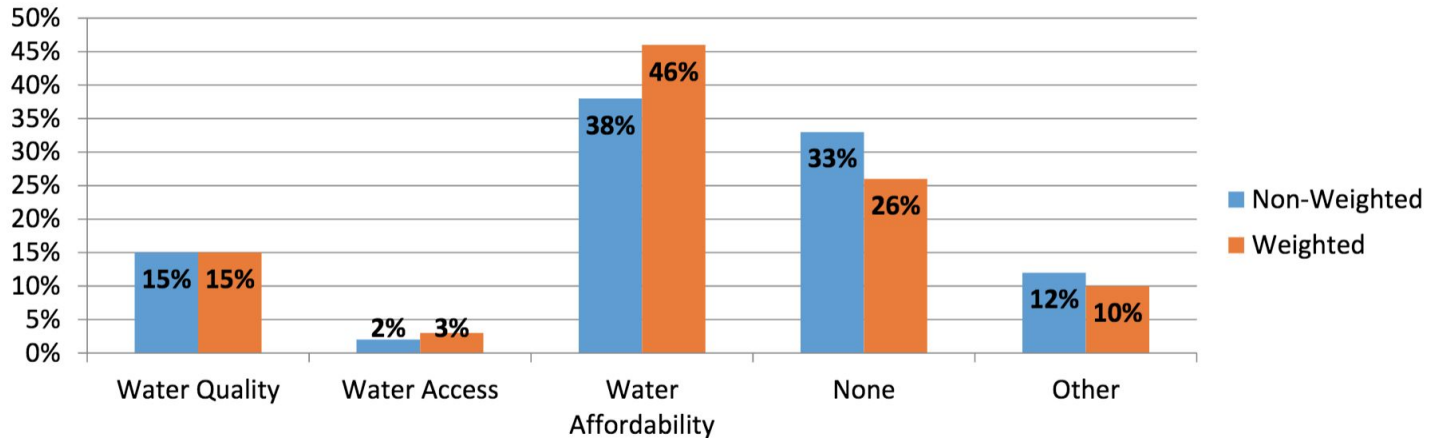
- Academic / researcher / evaluator
- Community organization / practitioner
- Regulator / policy-maker
- Utility / contractor
- Govt
- Impacted / interested community member

Share who participated



Elevate underrepresented voices

What is the top **WATER** challenge you have experienced in Detroit within the last 12 months?



Circling back to fill in gaps

Healing Our Relationship to the Land, Water, and Air & All Our Relations 'Returning to Our Sacred Duties'

How can discussions on energy decenter benefits to humans to better account for all of grandmother earth?

remove dams

How can the transition to renewable energy ensure that no communities are not forgotten, abused, or displaced?

Indigenous green sector career pathways

Access to culturally relevant services, education, and earning opportunities for those most impacted by energy infrastructure.

people need more time off, care centered economies, more opportunities to take care of ourselves and connect with each other.

digital equity, not everyone has access...

Flexible pedagogical methodologies centered on energy, that apply broadly to many indigenous nations, but are flexible and customizable to differences among the communities. Teach the keiki.

a starting point could be to stop "othering" ourselves from the natural world. we're very much within the natural world. everything that happens to our non-human relations can and will affect every one of us. For

For Indigenous peoples, we ourselves have to heal our relationship as our actions are often those of the colonizer as well -- so it is return to our own teachings.

teach tek, support tribal education, language programs, place-based teaching, art, and supporting BIPOC business.

are there incentives/ways to keep it in the ground. Often the markets shift to export, through many traditional homeland.

support tribal energy projects that are respectfully working with their communities or have that potential

Support Native leadership

Amplifying voices of BIPOC

BIPOC representation everywhere for children growing up especially

the shift from ownership to stewardship

Indigenous tourism as a way to teach us how to re-connect with motherland?

Dismantling racism in universities to break barriers to education and therefore leadership positions taken on by BIPOC. - Bryanna B.

Mandatory Black and Indigenous teaching spaces in grade schools led by Indigenous Peoples to shape the youths understanding of the land consistently. - Bryanna B.

genocide and environmental pollution. Uplift first foods and communities most harmed.

We must first start with a complete reframing and mindset shift -- a decolonization from the white settler worldview and capitalism. How do we heal the globe from white settler colonialism?

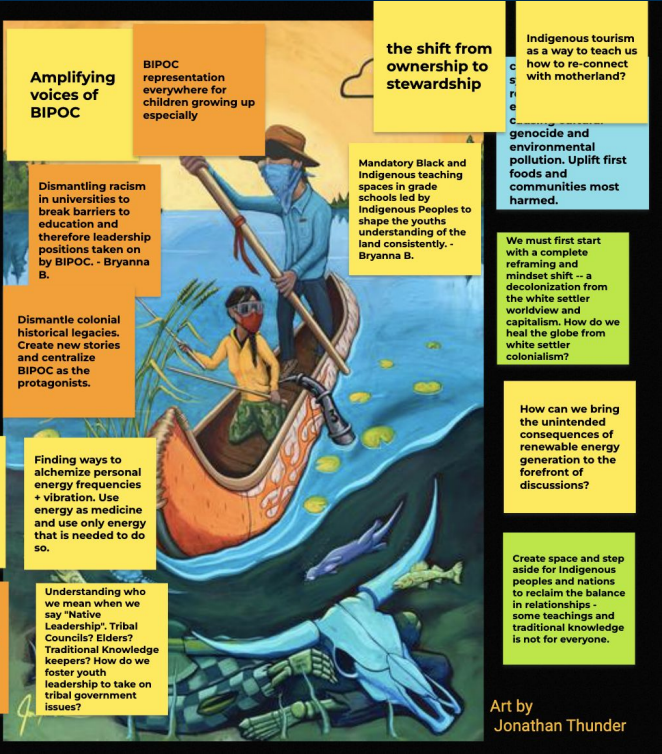
How can we bring the unintended consequences of renewable energy generation to the forefront of discussions?

Dismantle colonial historical legacies. Create new stories and centralize BIPOC as the protagonists.

Finding ways to alchemize personal energy frequencies + vibration. Use energy as medicine and use only energy that is needed to do so.

Understanding who we mean when we say "Native Leadership". Tribal Councils? Elders? Traditional Knowledge keepers? How do we foster youth leadership to take on tribal government issues?

Create space and step aside for Indigenous peoples and nations to reclaim the balance in relationships - some teachings and traditional knowledge is not for everyone.



Art by Jonathan Thunder



Distributive Equity

Who bears the brunt of the burdens? Who benefits and how?





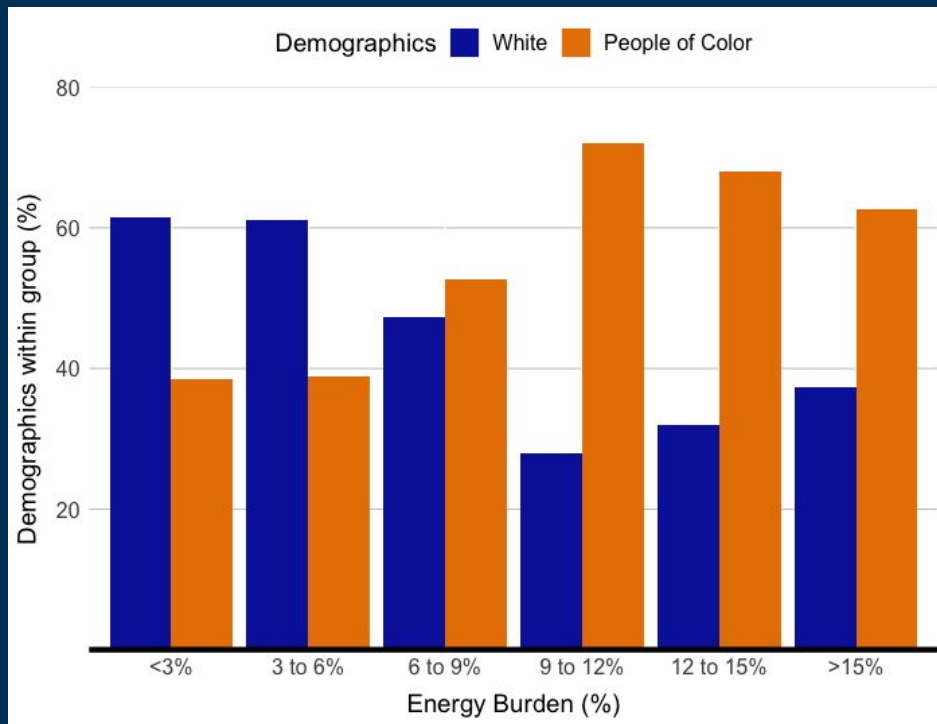
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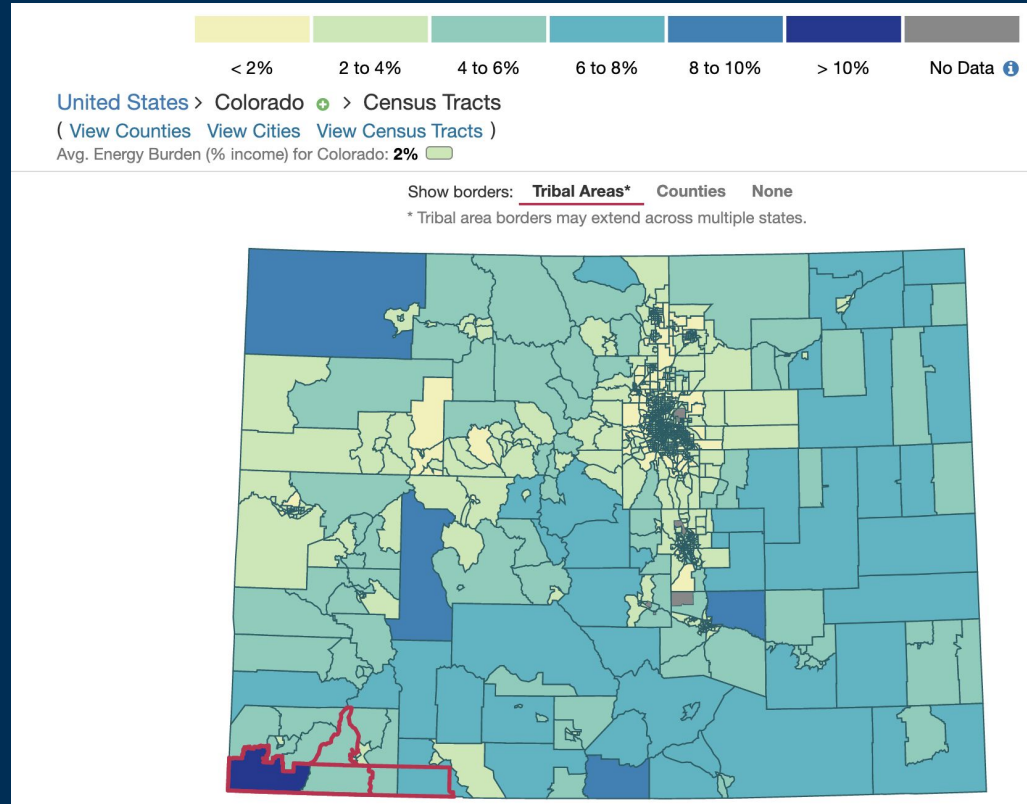
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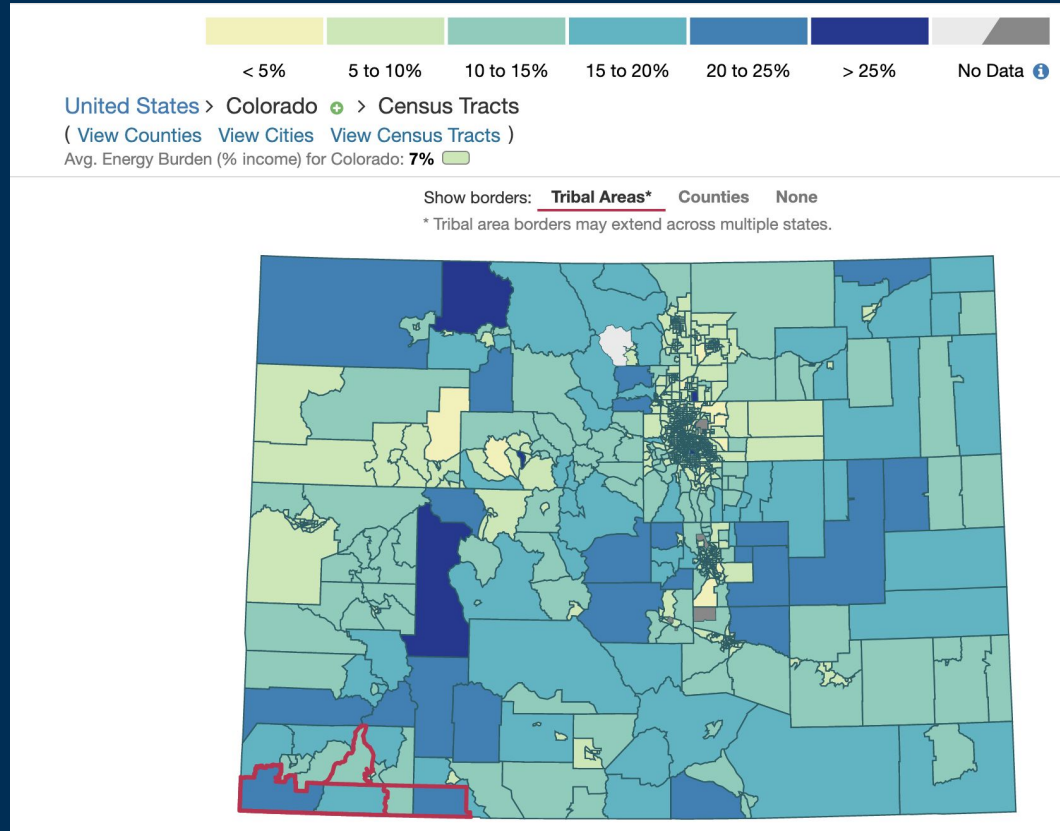
Distribution of energy burdens by race



Energy burden disparities



Energy burdens among low-income households



Principles of Distributive Equity

In an equitable energy system, all households would have access to affordable, clean, reliable energy services. In practice this would mean:

- No households face extreme/severe burdens (>10%).
- A plan and pathway to reducing high energy burdens (>6%) within the next three years
- The distribution of energy burdens does not disproportionately impact any particular demographic or socioeconomic group. In other words, no disparities in energy burden by race, income, education, disabilities or health conditions, age, family structure, or property ownership.

Metrics for internal equity

JOB GROUP	NUMBER OF POSITIONS AVAILABLE IN THE AGENCY	NUMBER OF WOMEN	PERCENTAGE OF WOMEN	NUMBER OF MINORITIES (ALL GENDERS)	PERCENTAGE OF MINORITIES (ALL GENDERS)
Administrators/Senior Executives	10	7	70.0%	1	10.0%
Mid-Level Supervisors	5	2	40.0%	1	20.0%
Business Supervisors	3	2	66.7%	0	0.0%
Architect Engineer Supervisors	2	0	0.0%	0	0.0%
Fiscal	31	13	41.9%	5	16.1%
Program Specialist	4	1	25.0%	0	0.0%
Business Professionals	1	1	100.0%	0	0.0%
Inspectors, Investigators and Compliance	5	4	80.0%	3	60.0%
Architects and Engineers	20	5	25.0%	4	20.0%
IS Professionals	12	3	25.0%	3	25.0%
Policy, Planning and Research	14	6	42.9%	2	14.3%
Environmental Specialists	6	2	33.3%	0	0.0%
Legal Professionals	8	3	37.5%	1	12.5%
Administrative Support	10	9	90.0%	1	10.0%
Unclassified	8	3	20.0%	2	25.0%

The 2020 service status analysis of the agency's 139 employees found that 70.5% of the Michigan Public Service Commission's workforce is comprised of employees with fifteen (15) years or less seniority.



Restorative Equity

How can we rectify past injustices caused by the energy system and prevent future harms?





I AM
ON
INDIGENOUS
LAND

U R
ON
INDIGENOUS
LAND

WE R
ON
INDIGENOUS
LAND

A brainstorming session from the EEP framework restorative justice workgroup



Sub-Dimensions of Restorative Equity

SUB-DIMENSION	CORE PRINCIPLES
Indigenous Sovereignty	<ul style="list-style-type: none">· Restoring balance· Healing our relationship to the land, water, air and all our relations· Environmental justice in the context of land· Traditional knowledge and sacred ways of knowing and teaching
Power to the People	<ul style="list-style-type: none">· Shifting the power· Decentralization· Degrowth
Accountability and Reparations	<ul style="list-style-type: none">· Transparency· Accountability· Reparations



Figure 4. A snapshot from one of the breakout sessions focused on *Healing Our Relationship to the Land, Water, and Air & All Our Relations*. As a starting point we asked the question, *How can the transition to renewable energy ensure that nonhuman relatives are not forgotten, abused, or mistreated?*

Preventative Measures

Alongside the other pillars of energy equity, restorative justice can prevent future harm, challenging decision makers to identify potential for future harm and put preventative measures in place, like:

- Environmental and Social Impact assessments
- Social License to Operate
- Energy Financial Reserve Obligation
- Utility Business Model Reform
- Performance Incentive Mechanisms
- Independent Power Producer and similar policies



RECOGNITION

Communities

PROCEDURAL

Voice

DISTRIBUTIVE

Fair share

RESTORATIVE

**Structural
change**