

Climate Crisis University:

Federal Funds for Transitioning Campuses toward Zero Waste Zero Emissions

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GOALS

Align campus facilities plans with federal funding to cut costs and improve sustainability outcomes.

Champion parallel process in which infrastructural improvements have organizational co-benefits.

Build multi-stakeholder teams of students, faculty, and staff to effectively implement high impact projects.



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AGENDA

Federal Funding (IRA)

Accessing IRA funding

Parallel Process

Stakeholders (internal)

Partnerships (external)

Road Map



Colorado State University



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“For the first time in history, the full financial might of the federal government is aligned behind the clean energy transition.”



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**\$739 billion
REVENUE**

**\$433 billion
SPENDING**

**\$386 billion
DIRECTED TOWARD
ENERGY &
CLIMATE**

INFLATION REDUCTION ACT (IRA)

40% reduction in GHG emissions from 2005 levels by 2030.

Unleash new clean energy technology investment & deployment and supercharge our transition to a clean energy economy.



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Climate Pollution Reduction Grants (CPRG)

Phase One: Planning

- State and/or Metro Regions currently working on Public Climate Action Plans (PCAPs)
- Ensure that recycling is included as a strategy in PCAP

Phase Two: Implementation

- Applications due April 1, 2024
- See if your college/university is part of a coalition to apply for this funding, or is applying itself
- Ensure that your recycling projects are included in the grant proposal



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FUNDING MECHANISM: TAX CREDITS

	Renewable Electricity Production Tax Credit (PTC)	Business Energy Investment Tax Credit (ITC)
Expenditure	\$51 billion	\$14 billion
After 2024	Clean Electricity Production Credit (\$11.2 billion)	Clean Electricity Investment Credit (\$59 billion)
Base Tax Credit	\$0.005/kWh	6% or 30%
Wage & Apprenticeship Requirements	+\$0.025	24% or N/A
Bonus Credits	+\$0.003 +\$0.003	+10% +10%



Funding Mechanisms: TAX CREDITS

	Renewable Electricity Production Tax Credit (PTC)	Business Energy Investment Tax Credit (ITC)
Ex		billion
		Investment
Base		30%
Wage & Appre Req		N/A
Bonus Credits	+\$0.003	+10%
	+\$0.003	+10%

New ELECTIVE PAY option allows non-taxable entities (including non-profit colleges and universities) to monetize tax credits & receive funding to cover up to 50% of the project cost.





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More Than Just Infrastructure

Infrastructure transformation is a human values-laden design challenge

The process provides an opportunity to make visible institutional values

Create new relationships

Expand and transform networks

Multi-scale learning with cascade effects



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PARALLEL PROCESS

“When two or more systems – whether these consist of individuals, groups, or organizations – have significant relationships with one another, they tend to develop similar affects, cognition, and behaviors, which are defined as parallel processes.”

- *Smith, Simmons, and Thames, 1989: 13*

Parallel processes can be set in motion in many different ways.

Conversation around campus infrastructure and green transitions is one of them.



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PARALLEL PROCESS: SYSTEMS CONVENING

Discussions about infrastructure have the possibility to convene a wide range of possible “stakeholders” in a system

Such conversations may also offer possibilities for identifying constituencies that were not previously included



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PARALLEL PROCESS: MULTI-SOLVING

“If departments, jurisdictions, and disciplines are just ideas, then there is nothing immovable about them. We can make these borders more permeable and conduct partnerships across them. We can even redraw them to include more of what matters in a single project or investment. Using one investment of time or effort to steer toward several goals at once.”

*- Sawin et al. 2023,
Stanford Social Innovation Review*



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PARALLEL PROCESS: BREAKING DOWN SILOS

“The word ‘silo’ does not just refer to a physical structure or organization (such as a department). It can also be a state of mind. Silos exist in structures. But they exist in our minds and social groups too.”

- Gillian Tett



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CURRICULAR INTEGRATION

Provides new possibilities for collaboration across the curriculum.

During the planning and design phases and beyond.

There are possibilities for nearly any discipline to be included, ranging from design to environmental studies, to literature.



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INTERNAL STAKEHOLDERS

Facilities staff

Faculty from across campus

Student environmental groups

Administration

Tax department

Business and Finance

Development Office

Janitorial

Site Maintenance

Alumni Office



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EXTERNAL PARTNERSHIPS

LOCAL JURISDICTION

City
County
Township

* Primary resource management level

SERVICE PROVIDERS

Waste management contractor
Waste hauler
Recycling processor
Utility

USUAL SUSPECTS

Non-profits
Secondary education
Government agencies



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WORKFORCE DEVELOPMENT

There are possibilities for building in apprenticeships with IRA funds and thinking more broadly about the role of campuses in regional green workforce development



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CASE STUDY: VISUAL CULTURE ARTS & MEDIA BUILDING RETROFIT

Fostered collaboration in re-envisioning and old, underused gymnasium, transforming it into a vibrant space of transdisciplinary learning.

Participants included: faculty across divisions (anthropology, fine arts, English literature, and others), facilities staff, engineers, architects.

The process fostered ongoing relationships among people who might not otherwise have engaged with each other.



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ROAD MAP

PHASE ONE

Waste and Energy Audit

Work with facility and maintenance staff to conduct an energy and waste audit. This will map out energy and material flows, identifying the most critical sources of energy use and waste generation.

Facilities Plan Review & Assessment

Following a thorough review of the current facilities plan, identify the areas in which the plan can be adjusted to take full advantage of IRA funds. Integrate ESG goals, as well as other university plans (e.g., Sustainability Plan, Strategic Plan), to ensure organizational alignment.

PHASE TWO

Facilities Plan Revision

Working with campus leadership, update the facilities plan such that building renovations, new construction, and materials management are aligned with federal funding opportunities.

PHASE THREE

Implementation

Design, site, and finance projects.

Parallel Process

Curricular and organizational integration.



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RESOURCES & REFERENCES

Second Nature & their IRA guidebook: “Higher Ed and the Climate Provisions in the Inflation Reduction Act”

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