

De-Carbonizing the Campus: Planning, Tools & Technologies

CampusEnergy2023

February 27 – March 2, 2023

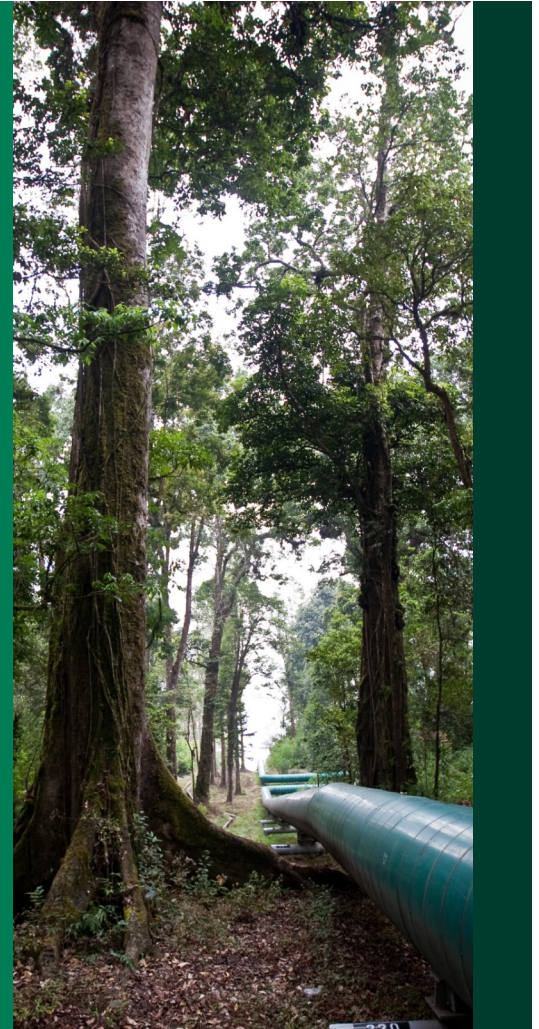
Gaylord Texan Resort & Convention Center | Grapevine, Texas



INTERNATIONAL
DISTRICT ENERGY
ASSOCIATION

An Update on Energy Incentives

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Agenda

1 **Relevant incentives** for community and district energy technologies and projects

2 **Application tips**, lessons learned and resources

Relevant Incentives

for community and district energy
technology and projects



Federal Incentives

Federal funding sources:

DOE

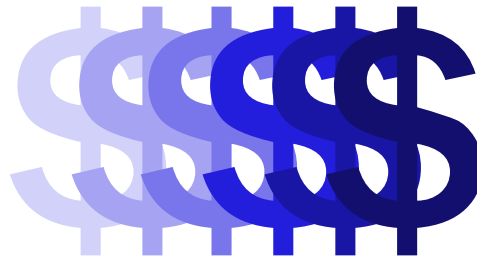
EPA

USDA

DHS

DOD

National Laboratories



All have programs to support a wide variety of energy technologies and projects

Federal Incentives

Grants, cost-share agreements and cooperative agreements offer:

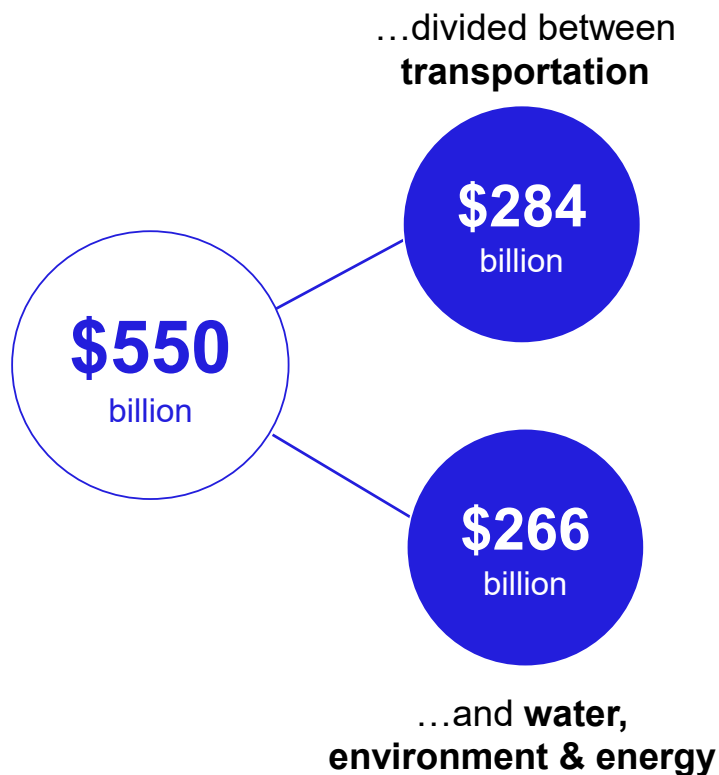
up to
100%
for analysis, modeling
and testing

up to
80%
for research and
design

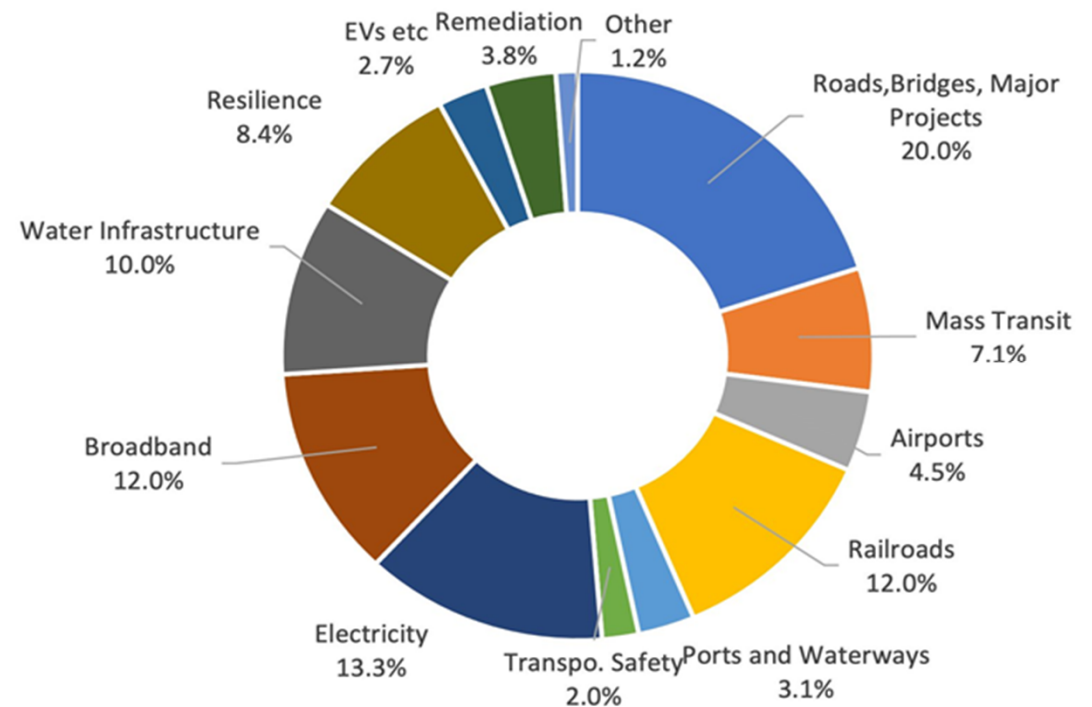
up to
50%
for demonstration and
commercial
deployment

level of government oversight | loan guarantees | technical assistance

Infrastructure Investment and Jobs Act (IIJA) provides **\$550 billion** in new, guaranteed spending...



IIJA: \$550B in Above-Baseline Spending Over 5 Years



Topline Supplemental Funding

Energy and Water Development and Related Agencies provides **additional appropriated money** from the Department of Energy (DOE) for five years, FY 2022-FY 2026

Source	Funding
Office of Energy Efficiency and Renewable Energy (EERE)	\$16.264 billion
Office of Electricity	\$8.1 billion
Office of Clean Energy Demonstrations (OCED)	\$21.456 billion
Nuclear Energy	\$6 billion
Office Fossil Energy Carbon Management	\$7.497 billion
Carbon Dioxide Transportation Infrastructure Finance and Innovation Program Account	\$2.1 billion
Energy Cybersecurity	\$550 million

Grid Resiliency and Decarbonization

Grid Resiliency and Innovation

This program will invest approximately **\$10.5 billion** to deploy technologies to increase grid reliability and resilience.

- Topic Area 1: Grid Resilience Grants
- Topic Area 2: Smart Grid Grants
- Topic Area 3: Grid Innovation Program

Long Duration and Energy Storage

This program will invest **\$349 million** in the demonstration of long-duration energy storage systems for lithium and non-lithium-based energy storage technologies with the goal of reducing the cost of grid-scale energy storage by 90% within the decade.

- Behind the meter demonstrations
- In front of meter demonstrations

Industrial Decarbonization

This program will invest approximately **\$6 billion** in large-scale projects to significantly reduce GHG emissions from high-emitting industrial subsectors.

Iron, steel, steel mill products, aluminum, cement, concrete, glass, pulp, paper, industrial ceramics, chemicals, and other energy-intensive industrial sectors.

Mix of IIJA and IRA funding.

Hydrogen

Regional Clean Hydrogen Hubs

\$8 billion for FY 2022-2026

Creates a program to support the development of at least four regional clean hydrogen hubs that demonstrably aid the achievement of the clean hydrogen production standard, demonstrate the production, processing, delivery, storage and end-use of clean hydrogen and can be developed into a national clean hydrogen network. At least two regional clean hydrogen hubs located in the regions of the US with the greatest natural gas resources.

Clean Hydrogen Manufacturing and Recycling

\$500 million for FY 2022-2026

Awards multiyear grants to eligible entities for research and development of projects that advance clean hydrogen production, processing, delivery and storage.

Clean Hydrogen Electrolysis Program

\$1 billion for FY 2022-2026

Creates a program that supports improving the efficiency and reducing the cost of clean hydrogen production using electrolyzers. The goal of the program is to reduce the cost of hydrogen production to less than \$2 per kilogram by 2026.

State Plans, Block Grants

State Energy Program

Amends the list of mandatory components of state energy conservation plans to include activities to support transmission and distribution planning, including support for local governments and Indian tribes; feasibility studies for transmission line routes and alternatives; preparation of necessary project design and permits; and outreach to affected stakeholders.

Authorizes \$500 million for the period between fiscal years 2022 and 2026 for the State Energy Program.

Energy Efficiency and Conservation Block Grant Program

Creates program for financing energy efficiency, renewable energy and zero emission transportation capital investments and projects. Allows for leveraging of public and private sector funds as incentives for the purchase and installation of energy efficient transportation.

Provides \$550 million for fiscal year 2022 to remain available until expended.

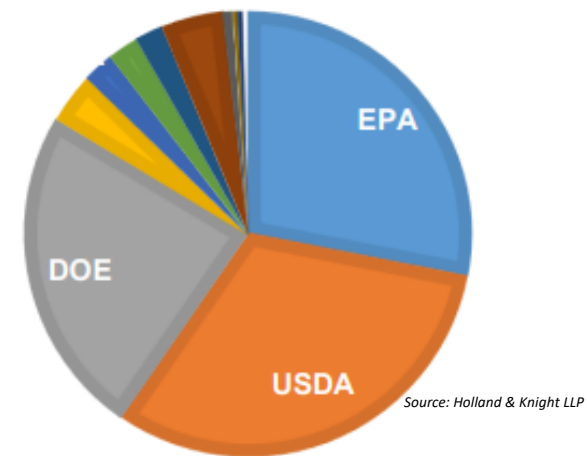
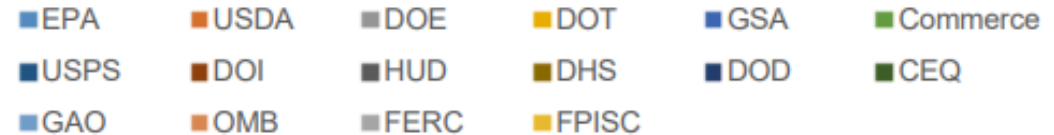
The Inflation Reduction Act – An Overview

General Overview

Likely the last major climate legislation for 3+ years

Administration will work to implement and spend heavily in next 24 months

Direct Appropriations to Federal Agencies



Select IRA Tax Credit Programs

ITC for Energy Property

Tax Code: 48

Provides a tax credit for investment in projects which include the following technologies:

fuel cell, solar, geothermal, small wind, energy storage, biogas, microgrid controllers, and CHP.

Base Credit – **6%**
Bonus Credits – **30-50%**

Direct pay option for tax exempt entities

Clean Electricity PTC/ITC

PTC Tax Code: 45Y

Provides a technology-neutral tax credit for production of clean electricity.

ITC Tax Code 48E

Provides a technology-neutral tax credit for investment in facilities that generate clean electricity, including energy storage.

Both offer base and bonus credits
and
Direct pay option for tax exempt entities

Advanced Energy Project ITC

Tax Code: 48C

Provides a tax credit for industrial or manufacturing entities that re-equip an industrial or manufacturing facility with equipment designed to reduce GHG emissions by at least 20%.

Base Credit – **6%**
Bonus Credits – **30%**

Direct pay option for tax exempt entities

Administration Priorities

Long-standing Priorities



Local Share of
Funding



Economic
Development



State of Good
Repair



Cost-
Effectiveness



Regional / National
Significance



Project
Readiness



Partnerships

“Shovel Ready”

Biden Administration Priorities



Resiliency /
Climate Change



Racial Equity



Multimodal
Transportation

“Shovel Worthy”

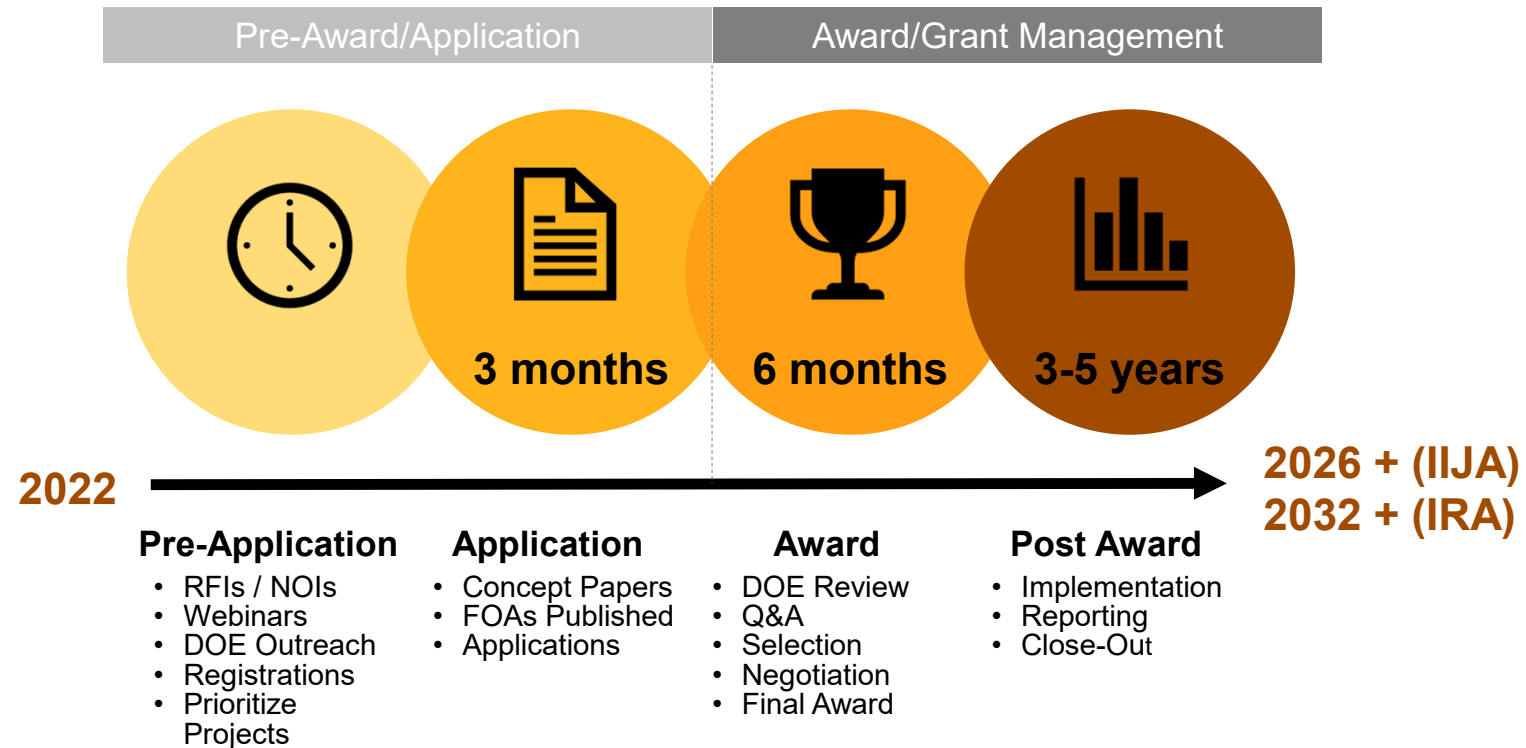
Applications

tips, lessons learned
and resources



Jacobs Challenging today.
Reinventing tomorrow.

IIJA and IRA Grant Timeline



\$70B+ in IIJA DOE grant programs

\$42B+ in IRA grant and loan programs / **\$40B** in IRA tax credits

Application Tips – Understand the Ask

1

Look for the scoring rubric if it is included in the guidance.

2

Sometimes there is info in the rubric that is not in the guidance.

3

Ask the funder about discrepancies.

4

Warning! Some grant guidance is better developed than others.

5

Ask early, once RFPs go out, help may be limited.

Application Tips

Pursue precursor technical and financial assistance at a smaller scale

- Analytic grants
- Technical support
- Competitive solicitations
- Unsolicited proposals

Develop appropriate partnerships

- End users
- Technology partners
- Design partners
- Construction partners

Application Tips

Develop 2-3 page white papers

- **Create visibility**
- **Legislative support**
- **Industry support**

Hold meetings with career staff

- **Align priorities**
- **Risk reduction**
- **Legislative support**
- **Industry support**

Lessons Learned

1

Accounting System Compliance

- DCAA
- Pre-Award Audits
- Annual Audits

2

Legal Review

- Certs and Reps
- FARS
- Davis-Bacon

3

Establish a Team

- Internal SMEs
- Exec Sponsor
- Grant Consultant
- Tech Vendors

4

Project Timing

- Award Process
- Cost Eligibility

Register Early

1

If using grants.gov,
EERE Exchange for the
first time, get started
early.

2

Register at
www.sam.gov
System for Award
Management

3

Don't wait until the last
minute, if possible.

4

Grants.gov has bad
days too.

Resources

Whitehouse IRA Guidebook: [Whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook](https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook)

Database of State Incentives for Renewables and Efficiency: [DSIRE.org](https://www.dsire.org)

Energy.Gov: energy.gov/public-services/funding-financing

EERE Energy Efficiency Exchange: eere-exchange.energy.gov

EPA-CHP Policies and Incentives Database: epa.gov/chp/policies/database

DOE Technical Assistance Partnerships: energy.gov/eere/amo/chp-technical-assistance-partnerships

State Energy Office websites

Utility websites

Questions?

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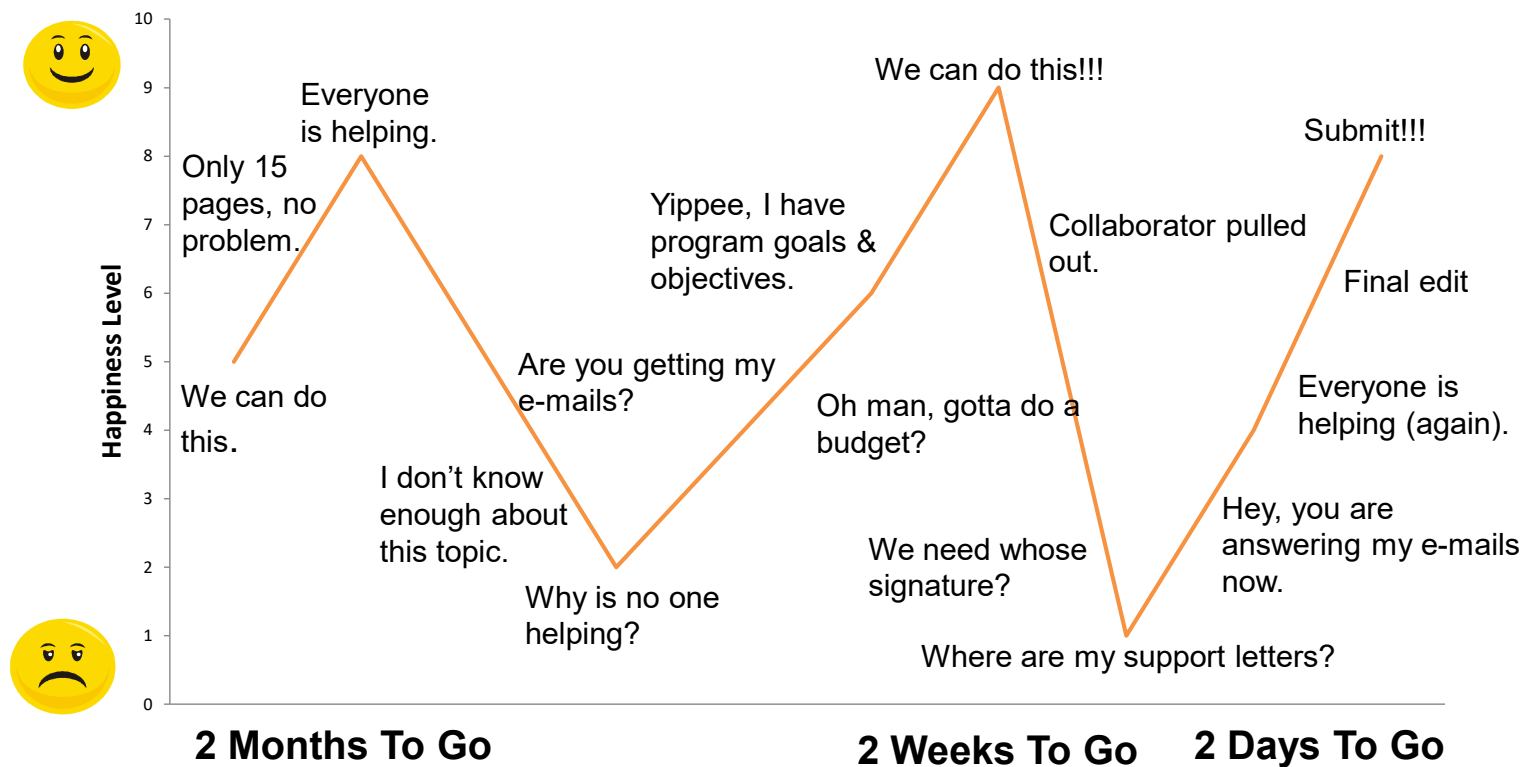
Come visit us at booth #11!



Challenging today.
Reinventing tomorrow.



Grant Applications: No Walk in the Park



Remember:

- Be brief.
- Be concise.
- Be specific.
- Avoid jargon.

