Filing Energy Tax Credits: How to Avoid Penalties and Maximize Value

Filing Energy Tax Credits

How to Avoid Penalties and Maximize Value

bakertilly

Tax credits.. Max value Minimize penalties Filing

- Introduction to Baker Tilly
- What is a Tax Credit
- Reviewing the 4 major Solar credits
- Understanding Bonus Credits

3

A word from the lawyers

-
-

About Baker Tilly

Baker Tilly

10th
largest accounting firm in the U.S.

6,700+
team members

600+
principals

1,800
Certified Public Accountants

$1.81B
firm revenue in FY2024

250+
workplace and culture awards

Baker Tilly International

bakertilly INTERNATIONAL

$5.2B
combined revenue

650+
offices

141
territories

43,000+
worldwide professionals

Baker Tilly Advisory Group, LP and Baker Tilly US, LLP, trading as Baker Tilly, are members of the global network of Baker Tilly International Ltd., the members of which are separate and independent legal entities. Baker Tilly US, LLP is a licensed CPA firm that provides assurance services to its clients. Baker Tilly Advisory Group, LP and its subsidiary entities provide tax and consulting services to their clients and are not licensed CPA firms.

Session Goals

- Understand the credit process from eligibility through monetization
- Understand applicable credits for solar projects and manufacturers
- Understand details of credit opportunities and risks (e.g. Recapture, PW&A, Domestic Content, etc.)
- Provide the basics for creating your project / product compliance framework

Credits and the IRA

- Tax credits can reduce the cost of a project to your customer significantly
- Tax credits can reduce your cost of energy property manufacturing considerably, changing your capital needs and operating costs
- Tax credits can open municipal customers to you because they can get paid for their project (direct pay)
- Tax credits can accelerate your capital recovery (transferability) on a project, reduce your need for investor capital, accelerate debt repayment or improve financial performance for a marginal project
- Two primary credit types:
  - Investment Tax Credits (ITC): A percentage of the qualifying energy capital associated with a project
  - Production Tax credits (PTC): Value/unit produced that varies by component or material

IRA Highlights

- Funded by a “Tax Credit” model designed to expand access to capital
- Tax credits may be subject to audit and recapture, so the burden is high
- Tax credits provide a dollar-for-dollar offset of tax liability
- Project owner(s) can apply the credit to their tax liability, in most case back 3-year and forward 22 years
- Project Owners can sell the tax credit for an immediate payment “Transferability”
- Tax – exempt owners can receive a “direct payment” in the form of cash payment from the IRS.
- Not easy to substantiate a claim and may require specialized services including “begun construction”, material sourcing/provenance and similar studies.

Turning Credits into Ca$h

- A credit is a dollar for dollar offset to federal tax liability.
- Three ways credits bring value to projects:
  - Owner(s) can simply use the tax credit against their own tax liability, in most case back three years and forward 22 years
  - If owner(s) doesn't have tax liability or taxable income, they can now sell certain credits to another taxpayer* ("transferability")
  - Tax – exempt owners can receive a "direct payment" in the form of cash payment from the IRS. These include state and local governments, not-for-profits, tribes and others ("direct pay") for certain credits

- Essentially, the Act is enabling ALL entities to utilize this legislation regardless of tax status. Additionally, 45Q, 45V and 45X are eligible for direct pay for non-exempt taxpayers for the first five years.

Credit Project Milestones

1 Determine project eligibility for IRA tax credits
Understand eligibility, tax optimization strategy, capital formation alternatives

2 Maximize, comply and substantiate the tax credits
Register your project with the IRS, identify your monetization and insurance plans, identify domestic manufacturers, identify qualified contractors

3 Claim the tax credits
Capture the project data and create the tax workpapers needed to claim the IRA tax credits and avoid penalties

4 Monetize and Protect the Credit
Optimize credit use and/or sale, ongoing recapture avoidance/compliance

- Effective credit claiming requires a plan, a process and a focused effort
- Different credits have different requirements
- All credits are a matter of "Tax" so must meet audit and similar standards
- Your process may change based on investor, financing and credit buyer requirements for risk management
- Guidance is evolving, so project strategies may need to be adjusted over time
- Dates matter

Solar Applicable Credits

- Investment Tax Credits
  - 48*/48E: 6% - 50%+ with bonus credits
  - 48D: 25% credit
- Production Tax Credits
  - 45X: Varies by product
  - 45*/45Y: $/kwh
- Each credit has its own specific rules for establishing and proving its value

* NOTES

- Projects who meet begun construction Prior to 1/1/2025 may be eligible for the prior section 45 and 48 tax credits. Projects wishing to claim 2024 or before begun construction should have a specific begun construction assessment performed.
- Beginning 1/1/2025, projects pursuing the 45Y/48E credits will need to establish their GHG emissions rates except for Wind, Hydropower, Solar, Marine and hydrokinetic, Geothermal and Nuclear fission or fusion which are deemed to qualify.

Keep Good Records – Some Examples

Prevailing Wage

- Payroll records at a minimum (certified payroll reports not required)
- Information identifying the employee
- Apprentice training agreement
- Location and type of facility
- Hourly rate and fringe paid to each labor classification
- Records to support contributions to a bona fide fringe benefit plan
- Labor hours worked per period
- Wages paid per period
- Proof of correction payments
- Wage determinations

Apprenticeship

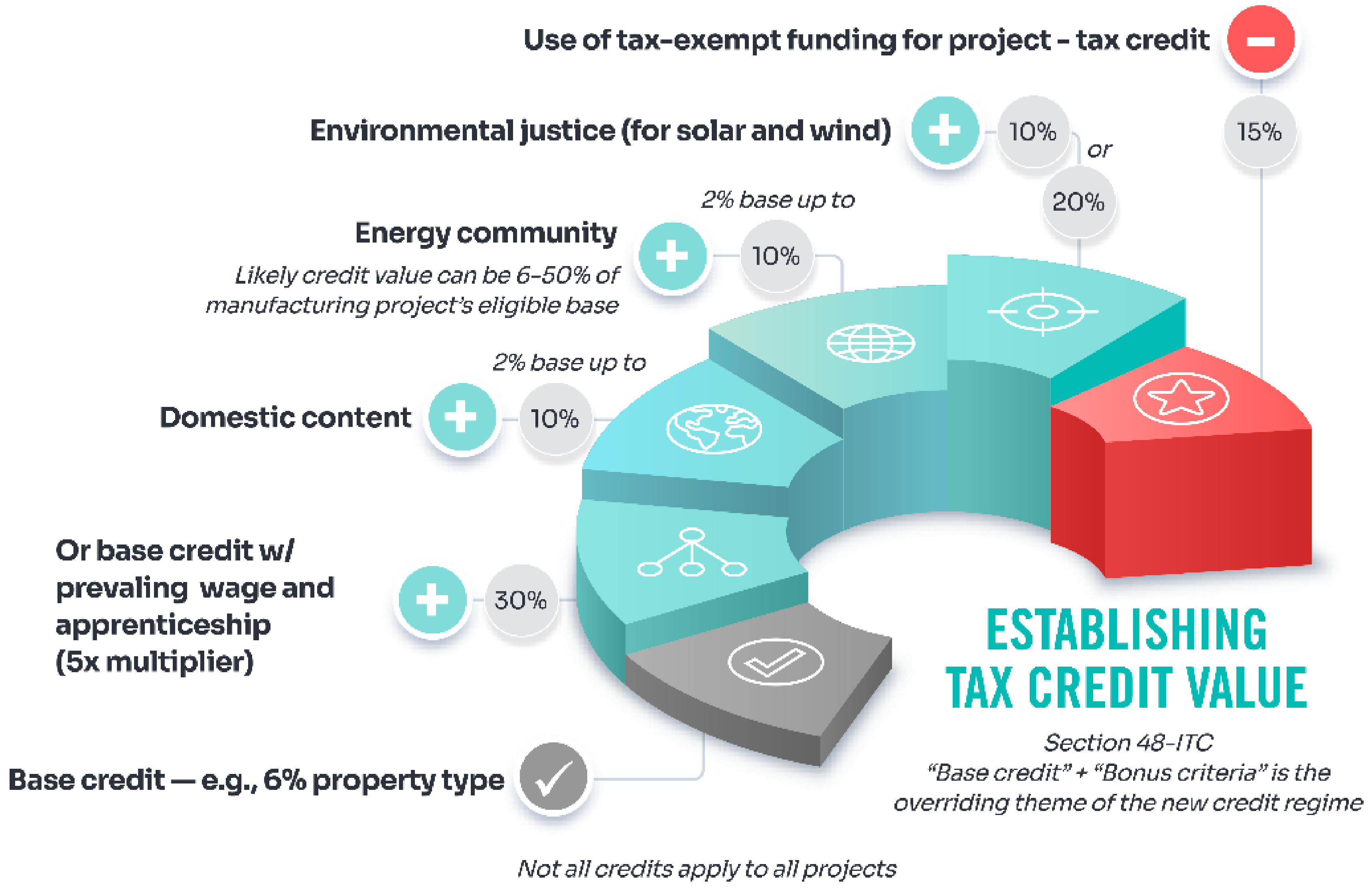
- Apprentice labor hours for construction, alteration or repair
- Apprentice participation requirements
- Copy of training agreement with registered apprenticeship program for each apprentice
- ‘Good faith effort’ exception documentation of requests (and responses, if any) for apprentices from the registered apprenticeship program
- The apprentice to journey worker ratio of the registered apprenticeship program was met on each day that an apprentice was working

Domestic Content

- Documenting the product and components
  - Drawings
  - Product Specification Documents
- Documenting Manufacturing Activities
  - On-site independent inspection
  - Video or Photo Evidence
  - Process Flow charts
  - Management Rep letter asserting manufacturing activity completed
- Documenting Ownership of Manufacturing Process
  - Manufacturing serialization reporting
  - Manufacturing Release Document
  - Quality Testing / Spec results
  - Bill of lading from location of manufacture to job site

You need to monitor Treasury for additional guidance and updates to these requirements over the life of your project

Section 48 / 48E ITC



Section 45/45Y – PTC

PTC property types

- Wind facilities
- Closed loop biomass facilities
- Open loop biomass facilities
- Geothermal or solar facilities
- Solar
- Small irrigation power
- Municipal solid waste facilities
- Qualified hydropower production facilities
- Marine and hydrokinetic facilities

Earned over 10-years on a $/kWh value

Base PTC: e.g. Small solar Property Credit

$0.005 per kWh	X5 **Prevailing wage**	**$0.025/kWh**
2%	**Domestic content**	**10%**
2%	**Energy community**	**10%**
	Environmental justice (Small solar and wind)	**10%** or **20%**

Or if you meet "begun construction" within 60 days of publication of applicable compliance guidance

Not all credits apply to all projects

45X Advanced Manufacturing tax credit fundamentals

- Manufacturing Production Tax Credit
  - Earned based on units produced and sold
  - Targeted products in the advanced energy supply chain
- Requires domestic production
- Credit rates vary by product type for qualifying technology
  - Full credit rates through 2029 with a phase-out period through Dec. 31, 2032
- Three monetization options
  - Claim on return
  - Direct Pay
  - Transfer
    - If electing direct pay or transfer, must complete an IRS registration process
    - Budget at least 6-8 weeks for IRS evaluation

45X Considerations

Product	• Does it conform to the definition provided in regulations?
Process	• Does the production process substantially transform into the product defined in the regulations?
Commercial structure	• Has the taxpayer sold the product to an unrelated party or met related party requirements?

QUALIFYING 45X TECHNOLOGY

Eligible components and credit amount

bakertilly

PV module and subcomponents

- Solar-grade polysilicon — $3 per kilogram (kg)
- PV wafer — $12 per square meter ($m^2$)
- PV cell (crystalline or thin-film) — 4¢ per watt-direct current (W_{dc})
- Polymeric back sheet — 40¢ per m^2
- PV module — 7¢ per W_{dc}

PV tracking systems

- Torque tube — 87¢ per kg
- Structural fasteners — $2.28 per kg

PV inverter

- Central inverter — 0.25¢ per watt-alternating current (Wac)
- Utility inverter — 1.5¢ per W_{ac}
- Commercial inverter — 2¢ per W_{ac}
- Residential inverter — 6.5¢ per W_{ac}
- Microinverter — 11¢ per W_{ac}

Batteries and critical minerals

- Electrode active materials — 10% of the costs incurred by the taxpayer due to production of such materials
- Battery cells — $35 per kilowatt-hour (kWh)
- Battery module — $10 (or, in the case of a battery module that does not use battery cells, $45) per kWh
- Critical minerals — 10% of the costs incurred by the taxpayer due to production of such minerals

Wind inverter

- Distributed wind inverter — 11¢ multiplied by the total rated capacity of the distributed wind inverter

Wind energy components

- Blade — 2¢ multiplied by the total rated capacity of the completed wind turbine
- Nacelle — 5¢ multiplied by the total rated capacity of the completed wind turbine
- Tower — 3¢ multiplied by the total rated capacity of the completed wind turbine
- Offshore wind foundation (fixed) — Equal to the product of 2¢ multiplied by the total rated capacity of the completed wind turbine
- Offshore wind foundation (floating) — Equal to the product of 4¢ multiplied by total rated capacity of the completed wind turbine

Tax credits are not a handout – what to consider

- Must result in substantial transformation
- Must occur in the U.S.
- Contract manufacturing arrangements
- Related party sales and transfers
- Documentation requirements

48D – Advanced Manufacturing Investment Credit

- 25% of qualifying investment into an advanced manufacturing facility
- 48D is not transferable
- Qualifying activity – semiconductor wafer production
- Qualified property eligible for the credit must be placed in service after 2022, and its construction must begin before Jan. 1, 2027

Requirements and Considerations

- Cannot be a Foreign Entity of Concern (FEOC)
- Cannot have an Applicable Transaction for 10 years after placed in service date
  - "Any significant transaction involving the material expansion of semiconductor manufacturing capacity of such applicable taxpayer in any foreign country of concern"

Understanding the Bonus Credits

Domestic Content: 10% additional credit value

- Steel & Iron must be 100% US “mine to manufacture”
- Manufactured products use a percentage test that increases over time (40% -> 55%) depending on when construction begins
- Manufacturers will need to provide “manufacturer cost” to project owners
- Recent guidance provided some safe harbor %’s

Energy Community: 10% additional credit value

- Brownfield sites
- Economies tied to coal, oil or natural gas
- Locations where coal mines have closed since 1999 or coal power plants have closed since 2009
- Baker Tilly Energy Mapping Tool

Prevailing Wage & Apprenticeship: 5x base credit multiplier

Prevailing Wage

- Modeled on David Bacon wage determinations
- Significant record keeping and timely “cures” required
- Requires a matching “wage declaration” from DOL including wage and fringe specific to the location
- Underpayment can require restitution, interest and penalties
- Safe harbor if the project’s maximum output is under 1MW (AC)
- Applies to post commissioning repairs and alterations for the life of the credit

Apprenticeship

- Requires the use of “qualified apprentices” from government certified apprenticeship programs
- Sets minimum percentage of hours which increases annually
- Has potentially significant penalties for non-compliance
- Safe harbor if the project’s maximum output is under 1MW (AC)

Prevailing Wage & Apprenticeship

Compliance requirements for taxpayer, any contractor or any subcontractor during “construction”, “alteration” or “repair”:

Prevailing wage

Apprenticeship

- **For 48E**, prevailing wages must be paid during construction and for five years following the placed-in-service date
- **For 45Y**, prevailing wages must be paid during construction and for 10 years following the placed-in-service date
- **Apprenticeship requirement** must be met during construction (not during alteration or repair) for both
- **PW&A does NOT apply** to 45X and 48D

Prevailing wage compliance

Taxpayer satisfies prevailing wage requirement if	• Contractor pays wages at rates not less than the prevailing rates or construction, alteration, or repair; **AND** • Maintains and preserves sufficient records to demonstrate laborers and mechanics were paid wages not less than prevailing wage rate
OR	
Failure to pay prevailing wage is corrected by contractor and taxpayer	• Contractor makes worker whole for wage underpayment plus incurred interest (Fed short term rate + 6% interest) from date of underpayment; **AND** • Taxpayer pays a penalty to Treasury of $5,000/underpaid worker each year
OR	
Failure to pay prevailing wage is defined as 'Intentional disregard'	• Making worker whole for 3x the sum of all unpaid prevailing wage; **AND** • Paying worker incurred interest (Fed Short Term Rate + 6% interest) from date of underpayment; **AND** • Taxpayer pays a penalty to Treasury at a rate of $10,000/underpaid worker each year

Apprenticeship: Three requirements

1. **Labor hour requirement** (project level)
2. **Participation requirement** (contractor level)
3. **Ratio requirement** (daily level)

Apprenticeship compliance

Taxpayer satisfies apprenticeship requirements if they…

- Meet the labor hour requirement – apprentices work the required 10-15% of project labor hours
- Meet the participation requirement – every contractor with four or more workers employs an apprentice(s)
- Meet the ratio requirement – the apprentice to journey worker ratio is met each day an apprentice works

OR

The contractor makes 'good faith effort' to satisfy apprenticeship requirements and penalties are paid for unmet apprentice hours by…

- Requesting qualified apprentices from a registered apprenticeship program (RAP) every 120 days (proposed) or 365 days (final rule); **AND**
- Providing proof of denial to provide apprentices from RAP or no RAP in the geographic area (only allowed under final); **OR**
- Not responding to request within five business days from receipt of request; **AND/OR**
- Paying a penalty to Treasury of $50/hour for any unmet apprenticeship hours

OR

Project demonstrates 'intentional disregard' for apprenticeship requirements by…

- Paying a penalty to Treasury of $500/hour for any unmet apprenticeship hours

Domestic content

Domestic content: 10% additional credit value

- Structural steel and iron must be 100% produced in the U.S.
- Manufactured products are deemed to have been manufactured in the U.S. if the adjusted percentage of the total cost of the components and subcomponents of the project is attributable to components that are mined, produced or manufactured in the U.S.

The annual adjusted threshold percentages are: (e.g. biogas)

- 40% for projects that begin construction before 2025,
- 45% for projects that begin construction in 2025,
- 50% for projects that begin construction in 2026 and
- 55% for projects that begin construction thereafter

Project owner cost is based on the manufacturer's cost, unless using safe harbor method

Domestic content requirement – meeting the threshold

In simple terms, **structural steel** is typically used to create the load-bearing elements of a structure, think beams and columns, and is usually **fabricated on-site**. On the other hand, **manufactured steel** refers to pre-fabricated steel components that are typically **made off-site** in a factory or manufacturing facility e.g., panels, skids and other elements used to create a complete building or structure.

Structural

Manufactured

Documenting domestic content – Manufactured Product

Questions to be Addressed:

- Have the Manufactured Product and Manufactured Product Components been clearly defined?
- Has the Manufactured Product been manufactured domestically (e.g. undergone transformative manufacturing activities beyond mere assembly of components)?
- Has the Manufactured Product Component been produced to meet its designed engineering specifications?
- Have Direct Labor Costs been verified?
- Have Direct Material Costs been verified?

Documenting domestic content – Manufactured Product

Expected documentation to be collected:

Documenting the product and components

- Drawings
- Product Specification Documents

Documenting Manufacturing Activities

- On-site independent inspection
- Video or Photo Evidence
- Process Flow charts
- Management Rep letter asserting manufacturing activity completed

Documenting Ownership of Manufacturing Process

- Manufacturing serialization reporting
- Manufacturing Release Document
- Quality Testing / Spec results
- Bill of lading from location of manufacture to job site

Procurement

- Bid specifications should state:
  - “All structural steel procured on behalf of “project name and owner name” shall be 100% manufactured in the United States of America”
  - Manufactured cost must be disclosed with country of origin documentation (if using cost based calculation)
  - Manufacturers will be required to provide an affidavit / representation letter to data provided and country of origin
  - Manufacturers will be required to comply with requests for supporting evidence to validate substantial transformation and location of manufacture for each manufactured product or manufactured product component
  - Contractors or procurement agencies must separate project spend into distinct categories to tie out domestic content property:
    - Labor
    - Construction Materials
    - Manufactured equipment
    - Subcontractor spend (with supporting invoices)

Domestic Content Planning

Pre-Construction

- Evaluate DC feasibility
- Identify domestic sourcing potential
- Establish procurement terms and requirements with project stakeholders

During Construction

- Proactively monitor compliance
- Reaffirm intent to seek DC bonus with construction partners
- Obtain manufacturing certifications upon product delivery to project site

Post-Construction

- Compile remaining documentation
- Reconcile project spend to products installed
- Complete certification package for tax filing

IRA Penalties - Recapture

- The IRS may “recapture” a credit if
  - PW&A is claimed but was not met
  - Domestic Content is claimed but not met
  - PW is not met in operation (if applicable)
  - The facility ceases operation
  - A facility or qualifying property is disposed of (sold). The timeline varies by credit type
- If a credit has been transferred (sold) to a third party, the third party is subject to the repayment as well as possible penalties and interest as well as associated costs (e.g. restatement of prior financials)
- Recapture risk can be insured, but that discussion generally needs to happen before the project starts

“Begun construction”

- Many tax credits use “begun construction” determinations to set the effective date for some credit eligibilities
- Taxpayers may use two methods to establish the date of beginning of construction
  - By starting physical work of a significant nature (physical work test) which can be performed onsite of offsite, or
  - By having paid or incurred 5% or more of the total cost of the facility (5% safe harbor) where incurred means the taxpayer must reasonably expect to receive the equipment within 3.5 months of payment
- For both tests:
  - Taxpayers must demonstrate either continuous construction or continuous efforts (continuity requirement)
  - A binding written contract, that is non-refundable, will need to be entered into with each vendor so costs are incurred prior to Dec. 31, 2024
- Certain activities may “feel like” they qualify, but this is a matter of tax law and precedent, and some activities may not, so get advice on your plan before committing to it.
- Originally framed in via IRS Notice 2013-29 and 2013-60, with ongoing clarifications in subsequent notices (2018-59 most recent)

Non-qualifying physical work activities

- Planning and designing
- Financing
- Permitting
- Surveying
- Studies
- Site clearing

From Contract to Filing: BT's Standard Process

Lifecycle Credit Capture Support

1. **Determine Tax Credit Eligibility**
   Pre-construction
2. **Preserving and Maximizing the Tax Credit:**
   Pre-construction
3. **Establishing the Eligible Energy Basis –**
   Post-construction Cost Segregation
4. **Workpaper File Generation to Support Tax Credit Claim**
   - 4.1 **Prevailing Wage & Apprenticeship Bonus Compliance Adder (if applicable)**
   - 4.2 **Energy Community Bonus Compliance Adder (if applicable)**
   - 4.3 **Domestic Content Compliance Adder (if applicable)**
5. **Monetizing or Transferring the Credit (Optional)**

PW&A Support

- **Contract & Labor Advisory**
  Pre-Construction
- **Project PW&A Compliance**
  Construction
- **Project PW&A Compliance (Recapture)**
  Post - Construction

Final Recommendations

IRA Credits are valuable, but require focus **– set a plan**

Establish clear expectations and intentions with all stakeholders up front – many issues arise due to lack of communication

Accumulate your documentation as your project progresses – don’t wait until the end to figure it out

Identify resources (web, news, experts, etc.) to monitor ongoing updates to guidance

Learn more about how your organization can maximize IRA tax credits.

Questions?

bakertilly

Registered Apprenticeship Support & Resources

Beck Long (they/them), Director of Workforce Services & Apprenticeship, SEIA - blong@seia.org

1/23/2025

#1 - SEIA IRA Apprenticeship Task Force

- **SEIA's IRA Apprenticeship Task Force** is a group of SEIA member company employees (Watt level & above) seeking to identify areas of **collaboration** around registered apprenticeships and **develop tools and resources** to assist members in **securing tax credits** and centering **quality, safe apprentice experiences**.

- Meetings include **regulatory updates** relating to IRA PWA provisions, **guest speakers,** and **peer experience sharing** opportunities.

- Email workforce@seia.org **to join**!

Photo: SOLV Energy

SEIA Solar Energy Industries Association®

#2 - Apprenticeships in Clean Energy (ACE) Network

U.S. Dept. of Labor funded national coalition of industry, training, and workforce development leaders working together to expand Registered Apprenticeships in clean energy.

IREC Independent leadership. Trusted clean energy expertise. INTERSTATE RENEWABLE ENERGY COUNCIL

SEIA Solar Energy Industries Association®

BUILDING PERFORMANCE ASSOCIATION

SERVICE YEAR

National Association of Workforce Boards

IWSI america THE INSTITUTE FOR WORKPLACE SKILLS AND INNOVATION

HBCU CDAC Clean Energy Initiative CLEAN ENERGY INNOVATION FUELING CAMPUSES AND EMPOWERING COMMUNITIES

CREATE Energy Center Working to Advance Energy Technology Educational Programs

arkansas advanced energy foundation WORKFORCE DEVELOPMENT

RENEWABLES FORWARD A Diversity, Equity & Inclusion Initiative

Solar and Storage Industries Institute

#2 - Apprenticeships in Clean Energy (ACE) Network

Open to both SEIA Members & Non-Members.

Receive **FREE** Technical Assistance:

- Understanding & Navigating Registered Apprenticeship System
- Registering or Expanding Apprenticeship Programs
- Support for Apprentice Recruitment and Retention
- Identifying Partners and Sustaining Operations
- Financial incentive funding

To get started, fill out **ACE Network's Sign Up Now form**, or email **Beck Long at** **blong@seia.org**.

#3 - RSVP for FREE Educational & Networking Event!

Filing Energy Tax Credits: How to Avoid Penalties and Maximize Value