HOMEOWNER'S GUIDE TO THE FEDERAL INVESTMENT TAX CREDIT FOR SOLAR PV

Disclaimer: This factsheet provides an overview and does not constitute professional tax advice or other professional financial guidance. It should not be used as the only source of information when making purchasing decisions, investment decisions, or tax decisions, or when executing other binding agreements.

WHAT IS A TAX CREDIT?

A tax credit is a dollar-for-dollar reduction in the amount of income tax you would otherwise owe. For example, claiming a $1,000 federal tax credit reduces your federal income taxes due by $1,000.

WHAT IS THE SOLAR INVESTMENT TAX CREDIT?

- → The federal investment tax credit (ITC) can be claimed on federal income taxes for 30% of the cost of a solar photovoltaic (PV) system if the system is placed in service on or before December 31, 2019.[12]
- → The ITC amount decreases to 26% for PV systems placed in service in 2020 and 22% for PV systems placed in service in 2021. The ITC expires in 2022 unless it is renewed by Congress.
- → The system must be placed in service during the tax year and generate electricity for a home located in the U.S.
- → There is no maximum amount that can be claimed if the solar PV system was installed in or after 2009.

AM I ELIGIBLE TO CLAIM THE INVESTMENT TAX CREDIT?

You might be eligible for this tax credit if you meet all of the following criteria:

- ☑ Your solar PV system was 'placed in service' between January 1, 2006, and December 31, 2021. Placed in service generally means that construction was completed, your utility approved connecting the system to the grid, pre-operating tests determined the equipment works, and you gained ownership of the system.[3]
- ☑ The solar PV system is located at a residential location in the U.S. (but not necessarily your primary residence).
- ☑ You own the solar PV system (e.g., you purchased it with cash or through financing – but are not leasing it or in an arrangement to purchase electricity generated by a system you do not own).
- ☑ The solar PV system is new or being used for the first time. The ITC can only be claimed on the "original installation" of the solar equipment.

WHAT EXPENSES ARE INCLUDED?

- ☑ Solar PV panels or PV cells used to power an attic fan (but not the fan itself)
- ☑ Contractor labor costs for onsite preparation, assembly, or original installation, including permitting fees, inspection costs, and developer fees
- ☑ Balance of system equipment, including wiring, inverters, and mounting equipment
- ☑ Sales taxes on eligible expenses

HOW DO OTHER INCENTIVES I RECEIVE AFFECT THE ITC?

For current information on incentives, including incentive-specific contact information, visit the Database of State Incentives for Renewables and Efficiency website at **www.dsireusa.org**.

REBATE FROM MY ELECTRIC UTILITY TO INSTALL SOLAR

Under most circumstances, subsidies provided by your utility to you to install a solar PV system are excluded from income taxes through an exemption in federal law.[4] When this is the case, the utility rebate for installing solar is subtracted from your system costs before you calculate your tax credit. For example, if your solar PV system costs $21,000 and your utility gave you a one-time rebate of $1,000 for installing the system, your tax credit would be:

$$0.3 * (\$21,000 - \$1,000) = \$6,000$$

PAYMENT FROM MY ELECTRIC UTILITY FOR RENEWABLE ENERGY CERTIFICATES

When your utility gives you an upfront incentive in exchange for future renewable energy certificates (RECs) or other environmental attributes associated with the electricity generated, the payment likely will be considered taxable income.[5] If that is the case, the payment will increase your adjusted gross income (AGI), but it will not reduce the ITC.

REBATE FROM MY STATE GOVERNMENT

Unlike utility rebates, rebates from state governments generally do not reduce your tax credit. For example, if your solar PV system and installation costs totaled $21,000 and your state government gave you a one-time rebate of $1,000 for installing the system, your tax credit would be:

$$0.3 * \$21,000 = \$6,300$$

STATE TAX CREDIT

State tax credits for installing solar PV generally do not reduce federal tax credits – and vice versa. However, when you receive a state tax credit, the income you report on your federal taxes will be higher than it otherwise would have been because you now have less state income tax to deduct. The end result of claiming a state tax credit is that the amount of the state tax credit is effectively taxed at the federal tax level.

For example, the net percentage reduction for a homeowner in North Carolina who claims both the 35% state tax credit and the 30% federal tax credit is calculated as follows, assuming a federal income tax rate of 25%:

$$0.30 + (1 - 0.25) * (0.35) = 56.25\%$$

Note that because reducing state income taxes increases federal income taxes paid, the two tax credits are not additive (i.e., *not* 35% + 30% = 65%). For a $21,000 system, the total cost reduction in this example would be:

$$[\$21,000 * 0.30] + [\$21,000 * (1 - 0.25) * (0.35)]$$

$$= \$6,300 + \$5,512.50$$

$$= \$11,812.50$$

CAN I CLAIM THE ITC, ASSUMING I MEET ALL REQUIREMENTS, IF…

…I AM NOT A HOMEOWNER?

Yes. You do not necessarily have to be a homeowner to claim the tax credit. A tenant-stockholder at cooperative housing corporation and members of condominiums are still eligible for the tax credit if they contribute to the costs of an eligible solar PV system. In this case, the amount you spend contributing to the cost of the solar PV system would be the amount you would use to calculate your tax credit. However, you cannot claim a tax credit if you are a renter and your landlord installs a solar system, since you must be an owner of the system to claim the tax credit.

…I INSTALLED SOLAR PV ON MY VACATION HOME (LOCATED IN THE U.S.)?

Yes. Solar PV systems do not necessarily have to be installed on your primary residence for you to claim the tax credit. Note, however, that the residential ITC cannot be claimed when you put a solar PV system on a rental unit you own.[6]

…I AM NOT CONNECTED TO THE ELECTRIC GRID?

Yes. A solar PV system does not necessarily have to be connected to the electric grid for you to claim the ITC, as long as it is generating electricity for use at your residence.

…THE SOLAR PV PANELS ARE ON MY PROPERTY, BUT NOT ON MY ROOF?

Yes. The solar PV panels located on your property do not necessarily have to be installed on your roof, as long as it is generating electricity for use at your residence.

…I HAVE A HOME OFFICE (OR MY RESIDENCE IS ALSO USED FOR A COMMERCIAL PURPOSE)?

Yes, but if the residence where you install a solar PV system serves multiple purposes (e.g., you have a home office or your business is located in the same building), claiming the tax credit can be more complicated. When the amount spent on the solar PV system is mostly used for residential rather than business purposes, the residential credit may be claimed in full without added complications. However, if less than 80% of the solar PV system cost is a residential expense, only the percentage that is residential spending can be used to calculate the ITC for the individual's tax return; the portion that is a business expense could be eligible for a similar commercial ITC on the business's tax return.

…I FINANCED MY SOLAR PV SYSTEM INSTEAD OF PAYING FOR IT UPFRONT? (IF SO, HOW DO I TREAT INTEREST, ORIGINATION FEES, AND EXTENDED WARRANTY EXPENSES?)

Yes. If you financed the system through the seller of the system and you are contractually obligated to pay for the full cost of the system, you can claim the ITC based on the full cost of the system. Miscellaneous expenses including interest owed on financing and origination fee and extended warranty expenses are not eligible expenses to include when calculating your tax credit.

…I BOUGHT SOLAR PANELS BUT HAVE NOT INSTALLED THEM YET?

No. The tax credit is only for systems that were 'placed in service' during the year, meaning they must have been installed.

…I PARTICIPATE IN AN OFF-SITE COMMUNITY-SHARED SOLAR PROGRAM?

The answer depends both on your specific circumstances and the community-shared solar program's structure. The IRS states in Questions 25 and 26 in its **Q&A on Tax Credits** that off-site solar panels or solar panels not directly on the taxpayer's home could still qualify for the ITC under some circumstances. In August 2015, the IRS clarified[7] that an owner of solar panels in an offsite, net-metered, community-shared solar system is eligible for the residential ITC; however, its decision is only legally applicable to the specific taxpayer in the case and cannot be used as precedent by other taxpayers, underscoring the importance of consulting a tax professional prior to assuming eligibility.

Community solar programs can be structured in a variety of ways, so even if you are eligible for the ITC, it may be difficult to claim due to other tax rules. For example, one arrangement is the creation of a "Special Purpose Entity," where community members form and invest in a business that operates the community solar project. If your participation is limited to investing in the community solar project and you do not participate in the operation of the project on a regular, continuous, and substantial basis, you are constrained in taking advantage of the ITC because you are considered a "passive investor." IRS rules require that a tax credit associated with a passive investment only be used against passive income tax liability, which only applies to income generated from either a rental activity or a business in which the individual does not materially participate.[8]

OTHER FREQUENTLY ASKED QUESTIONS

WHAT IF THE TAX CREDIT EXCEEDS MY TAX LIABILITY? WILL I GET A REFUND?

This is a nonrefundable tax credit, meaning you will not get a tax refund for the amount of the tax credit that exceeds your tax liability. However, you can carryover any unused amount of tax credit to the next tax year.

CAN I USE THE TAX CREDIT AGAINST THE ALTERNATIVE MINIMUM TAX?

Yes. The tax credit can be used against either the federal income tax or the alternative minimum tax.

I BOUGHT A NEW HOUSE THAT WAS CONSTRUCTED IN 2014, BUT I DIDN'T MOVE IN UNTIL 2015. MAY I CLAIM A TAX CREDIT IF IT CAME WITH SOLAR PV ALREADY INSTALLED?

Yes. Generally, you can claim a tax credit on the expenses related to the new solar PV system that already came installed on the house for the year in which you moved into the house (assuming the builder did not claim the tax credit). For example, you can ask the builder to make a reasonable allocation for these costs for purposes of calculating your tax credit.

HOW DO I CLAIM THE ITC?

After seeking professional tax advice and ensuring you are eligible for the ITC, you can fill out and attach IRS **Form 5695** to your federal tax return (Form 1040 or Form 1040NR). Instructions on filling out the form are available at **http://www.irs.gov/pub/irs-pdf/i5695.pdf**.

WHERE CAN I FIND MORE INFORMATION?

ASK QUESTIONS

→ Internal Revenue Service, located at 1111 Constitution Avenue, N.W., Washington, DC 20224, and available by phone at (800) 829-1040.

FIND RESOURCES

→ The federal statute and IRS guidance: 26 USC § 25D at **www.gpo.gov** and "Q&A on Tax Credits for Sections 25C and 25D" at **www.irs.gov**

→ Updated information on the current status of the ITC: Database of State Incentives for Renewables and Efficiency entry on "Residential Renewable Energy Tax Credit" at **www.dsireusa.org**

→ Additional information, guides, and factsheets: Solar Energy Industries Association at **www.seia.org**

Acknowledgements

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This factsheet was prepared by Benjamin Inskeep and Autumn Proudlove of the NC Clean Energy Technology Center, with contributions from the Center's DSIRE team.

About the NC Clean Energy Technology Center

The NC Clean Energy Technology Center is a UNC System-chartered Public Service Center administered by the College of Engineering at North Carolina State University. Its mission is to advance a sustainable energy economy by educating, demonstrating and providing support for clean energy technologies, practices, and policies. The Center provides service to the businesses and citizens of North Carolina and beyond relating to the development and adoption of clean energy technologies. Through its programs and activities, including the SunShot Solar Outreach Partnership, the Center envisions and seeks to promote the development and use clean energy in ways that stimulate a sustainable economy while reducing dependence on foreign sources of energy, and mitigating the environmental impacts of fossil fuel use.

Disclaimer

This material is based upon work supported by the U.S. Department of Energy under Award Number DEEE0003525.The guide was produced by the NC Clean Energy Technology Center (formerly the NC Solar Center) with the support of the following team of organizations: ICLEI – Local Governments for Sustainability; International City/County Management Association (ICMA); Interstate Renewable Energy Council, Inc. (IREC); Meister Consultants Group, Inc. (MCG); Solar Electric Power Association (SEPA); The Solar Foundation (TSF); American Planning Association (APA); and National Association of Regional Councils (NARC).

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ENDNOTES

[1] 26 U.S.C. § 25D

[2] Consolidated Appropriations Act, 2016 (H.R. 2029). Retrieved from https://www.gpo.gov/fdsys/pkg/BILLS-114hr2029enr/pdf/BILLS-114hr2029enr.pdf

[3] Martin, K. (2013, September 9). *Guide to federal tax incentives for solar energy* (7.0 ed.). Retrieved from www.seia.org

[4] 26 U.S.C. § 136

[5] Internal Revenue Service. (2010, September 3). IRS private letter ruling 201035003. Retrieved from http://www.irs.gov/pub/irs-wd/1035003.pdf [*Note: A Private Letter Ruling may not be relied on as precedent by other taxpayers.]*

[6] See 26 U.S.C. § 25D(d)(2), specifying that eligible solar electric property expenditures must be "…for use at a dwelling unit located in the United States and *used as a residence by the taxpayer*" (emphasis added).

[7] Internal Revenue Service. (2015, July 28). IRS Private Letter Ruling 111860-15. Retrieved from http://www.cesa.org/assets/2015-Files/IRS-Community-Shared-Solar-PLR.pdf [*Note: A Private Letter Ruling may not be relied on as precedent by other taxpayers.]*

[8] Coughlin, J., Grove, J., Irvine, L., Jacobs, J. F., Philips, S.J., Moynihan, L., Wiedman, J. (2010, November). *A guide to community solar: Utility, private, and non-profit project development.* Retrieved from http://www.nrel.gov/docs/fy12osti/54570.pdf