Solar Energy System Tax Credit
Annual Report for 2017
Released January 2, 2018

Reporting Requirements

Iowa Code section 422.11L requires that the Iowa Department of Revenue (IDR) submit an annual report to the Governor and the General Assembly on or before January 1 regarding the number and value of the Solar Energy System Tax Credits claimed during the previous calendar year, and any other information IDR may deem relevant and appropriate. This report meets that requirement for 2017.

Tax Credit Eligibility

A Solar Energy System Tax Credit is available for taxpayers who install a solar energy system on property located in Iowa. The tax credit is nonrefundable, but any tax credit in excess of tax liability can be carried forward up to ten tax years. The tax credit was enacted in May 2012 for individual and corporation income taxpayers, but was retroactive to solar energy systems placed in service on or after January 1, 2012. For tax years beginning on or after January 1, 2014, the tax credit can be claimed against franchise tax paid by banks; for tax years beginning on or after January 1, 2015, the tax credit can also be claimed against the moneys and credits tax paid by credit unions.

The Iowa Solar Energy System Tax Credit equals a percentage of the federal tax credits offered for solar energy systems. Federal tax credits are available for property placed in service before January 1, 2022. Currently, the federal credit equals 30 percent of installation costs. After December 31, 2019 and before January 1, 2021 the federal credit will decrease to 26 percent of costs. The federal credit rate will decrease to 22 percent for property placed in service after December 31, 2020 and before January 1, 2022; therefore, the Iowa tax credit is available for tax years 2012 through 2021. Taxpayers who claim this tax credit are not eligible to claim a Renewable Energy Tax Credit under Iowa Code Chapter 476C for the production of solar electricity.

Solar Energy System Tax Credit

For residential installations completed on or after January 1, 2016, the Iowa Solar Energy System Tax Credit is equal to 50 percent of the federal Residential Energy Efficient Property Tax Credit related to solar systems provided in section 25D(a)(1) of the Internal Revenue Code for solar electric property and section 25D(a)(2) of the Internal Revenue Code for solar water heating property. The federal tax credit is

claimed on federal form 5695, Residential Energy Credits for individuals. The Iowa tax credit for an individual cannot exceed $5,000.

For business installations completed on or after January 1, 2016, the Iowa Solar Energy System Tax Credit is equal to 50 percent of the federal energy credit as provided in sections 48(a)(2)(A)(i)(II) of the Internal Revenue Code for solar electric, heating and cooling property. Through December 31, 2016, 48(a)(2)(A)(i)(III) of the Internal Revenue Code provided a credit for equipment using solar energy to illuminate structures using fiber-optic distributed sunlight. The federal tax credit is claimed on federal form 3468, Investment Credit, for corporations, banks, and credit unions. The Iowa tax credit for a business cannot exceed $20,000.

The aggregate amount of Solar Energy System Tax Credits awarded to individuals, banks, credit unions, partnerships, limited liability companies, S corporations, and C corporations per calendar year is capped at $5 million beginning calendar year 2015, up from $4.5 million in calendar year 2014. Beginning in 2014, $1 million of the cap is reserved for residential installations. The calendar year cap in 2012 and 2013 was $1.5 million each year. The tax credits are awarded on a first-come, first-served basis until the award cap is reached each year.

Although residential installations receive priority until the $1 million set-aside for residential installations is met, if IDR receives applications for tax credit awards in excess of the $5 million available in a calendar year, approved applications are waitlisted for the next available year's allocation of tax credit awards. At the time of this report, there are 389 submitted applications requesting over $2 million in Iowa credits that will roll over to the 2018 waitlist once they are approved.

Receiving an Award

Taxpayers must submit an application to IDR to receive a tax credit award. At the end of September 2015, the paper application was replaced with an electronic application, available online through the Tax Credit Award, Claim & Transfer Administration System (CACTAS).

IDR awards the tax credit once the following information is provided:

- The completed application
- A copy of the invoice or other documentation showing the cost of the installed system
- A document verifying that the system qualifies for the federal tax credit
- The utility completion sheet
- Corporations, banks, and credit unions must also provide the date place in service
- Verification of separate and distinct installations when multiple awards are requested
- The amount of the Iowa tax credit to be reserved
- A signed copy of the Tax Credit Applicant Certification form available within the CACTAS application

During the 2016 legislative session, the due date for applications was extended for installations made in 2014 and 2015. Taxpayers with installations in 2016 or later must submit an application to IDR before May 1 of the year following the year of installation to be eligible for an award. An approved application is issued a tax credit certificate including a unique tax credit certificate number, the taxpayer's name, address, and the amount of the tax credit.

Summary of Solar Energy System Tax Credit Awards

Solar Energy System Tax Credit awards over the last five years are summarized in Table 1. In 2013, the $1.5 million cap was met, although as a result of amended claims and revocations the final awarded amount is slightly below the cap. Amendments to awards made in 2014 also explain the total falling below the $4.5 million cap available in that year. Effective with the 2014 award year, any unused awards are rolled over to the following year allowing awards in 2015 to slightly exceed the $5 million cap.

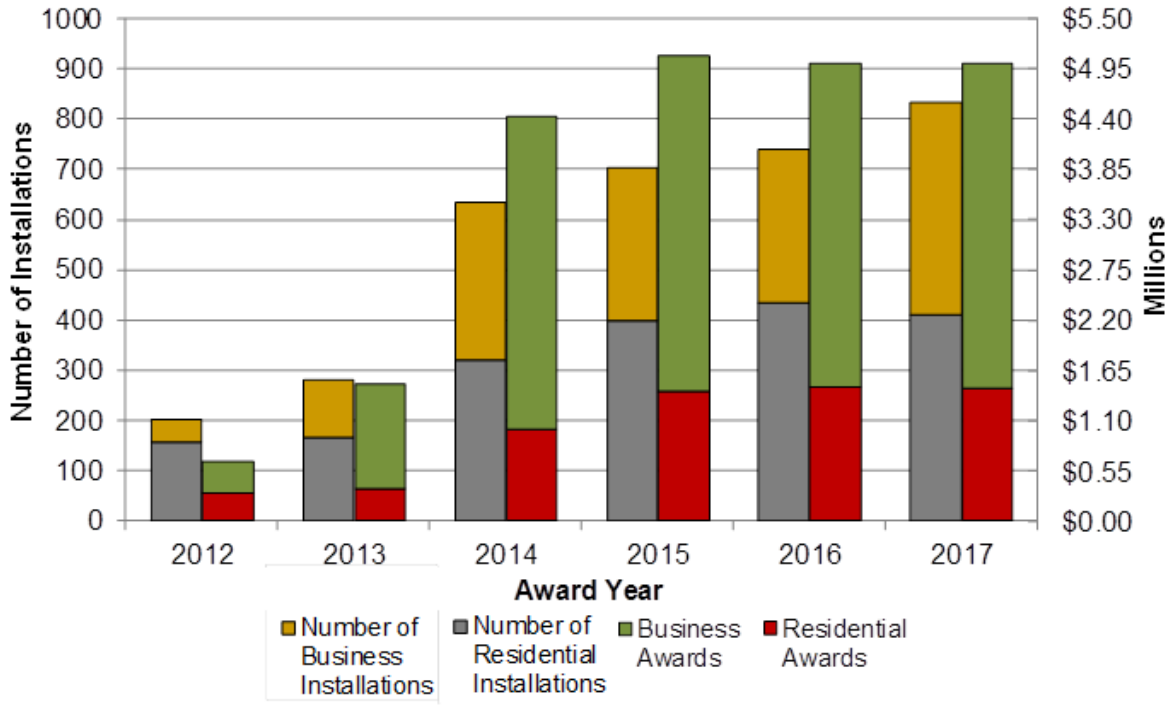
Table 1. Solar Energy System Tax Credit Awards

	Residential Installations			Business Installations			Total	
Award Year	Number of Tax Credit Awards	Amount of Tax Credit Awards	Average Tax Credit Award	Number of Tax Credit Awards	Amount of Tax Credit Awards	Average Tax Credit Award	Number of Tax Credit Awards	Amount of Tax Credit Awards
2012	158	$292,263	$1,850	45	$359,881	$7,997	203	$652,144
2013	167	$355,287	$2,127	114	$1,143,077	$10,027	281	$1,498,364
2014	320	$1,002,419	$3,133	314	$3,409,472	$10,858	634	$4,411,891
2015	398	$1,405,921	$3,532	305	$3,672,081	$12,040	703	$5,078,002
2016	437	$1,458,931	$3,339	303	$3,539,306	$11,681	740	$4,998,237
2017	410	$1,444,200	$3,522	424	$3,551,288	$8,376	834	$4,995,488
Total	1,890	$5,959,021		1,505	$15,675,105		3,395	$21,634,126

Note: Reflects applications approved as of December 21, 2017
Source: Iowa Department of Revenue CACTAS Award Database

Total awards for 2017 to-date are almost $5 million, with over $1.4 million awarded for residential installations, meeting the $1 million residential set-aside (see Figure 1). Additional applications received for installations in 2017 await review; applications approved after the 2017 cap is met will be placed on a waitlist and will receive awards under the 2018 cap. Awards during the first six years of the program total $21.6 million to-date.

Figure 1. Installations and Amount of Credits Awarded by Application Type



The average Solar Energy System Tax Credit award for residential installations slightly increased from award year 2016 to 2017 while the average award for business installations decreased (see Table 1). In previous years, average residential awards increased with the exception of 2016 when there was a drop in the share of applications that received the maximum award. There was also a larger jump in the average between 2013 and 2014 due to the Legislative increase in the maximum awards for installations in 2014 and later. The maximum award for calendar years 2012 and 2013 for a residential installation was $3,000; the maximum is $5,000 for 2014 and later. The maximum award for a business installation was $15,000 in 2012 and 2013; the maximum is $20,000 in 2014 and later. The average 2017 award for a residential installation increased to $3,522. The residential awards issued during award year 2017 included larger KW systems and fewer awards than 2016. In 2017, 25 percent of the number of awards issued for residential installations equaled the maximum tax credit compared to 28 percent in 2016, and 33 percent in 2015. The average award for a business installation decreased to $8,376. In 2017, only 12 percent of awards for business installations equaled the maximum, compared to 20 percent in 2016. The drop in maximum awards is attributed to a rise in applications for multiple smaller, separate and distinct installations on multi-residential buildings.

While the 2012 cap was not fully utilized, applications for installations completed after 2012 have easily exceeded the cap in all other years (see Table 2). For the 2013 cap, the first 281 installations during calendar year 2013 used up the cap, pushing the remaining 201 installations on a wait list with awards later issued under the 2014 cap. Likewise, for 2014 installations, 384 installations reviewed or amended after the $4.5 million cap was met were pushed to a wait list and issued tax credit awards under the

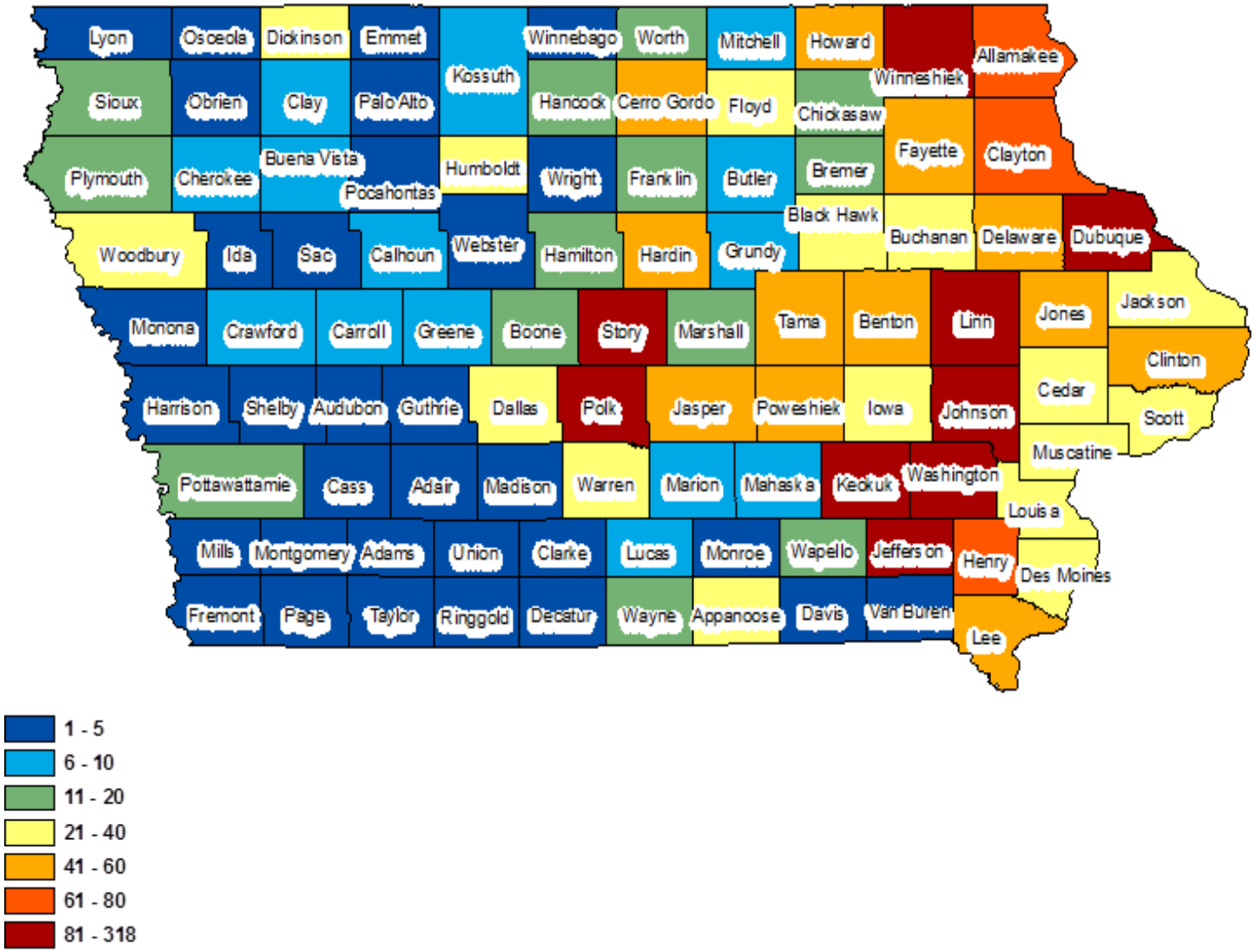
2015 cap. In 2014, 20.5 percent of the cap was awarded for prior year installations; in 2015, 57.8 percent of the cap was awarded for prior year installations; and 51.3 percent in 2016. Awards made for 2017 include 488 installations completed in 2016, 58.4 percent of the cap.

Table 2. Solar Energy System Tax Awards by Installation Year

Award Year	Current Installation Year		Installation in Prior Years		Percent of Cap Used by Installations from Prior Year
	Count of Awards	Total Awards	Count of Awards	Total Awards	
2012	203	$652,144	0	$0	0.0%
2013	281	$1,498,364	0	$0	0.0%
2014	433	$3,506,113	201	$905,778	20.5%
2015	319	$2,186,181	384	$2,891,821	57.8%
2016	390	$2,432,254	350	$2,565,983	51.3%
2017	346	$2,073,770	488	$2,921,718	58.4%
Total	1,972	$12,348,826	1,423	$9,285,300	

Awards in the first six years of the Solar Energy System Tax Credit have been issued for 3,395 separate and distinct installations in Iowa, there has been at least one installation in each of the Iowa counties (see Figure 2). Although installations have been widespread, the prevalence is geographically concentrated in Eastern Iowa. Dallas, Dickinson, Humboldt and Woodbury counties were the only four western counties that have more than 20 installations. Dubuque, Jefferson, Johnson, Keokuk, Linn, Polk, Story, Washington, and Winneshiek counties each have over 80 installations.

Figure 2. Solar Energy System Tax Credit Awards by County, Award Years 2012-2017



Source: Iowa Department of Revenue, CACTAS award database as of December 29, 2017.

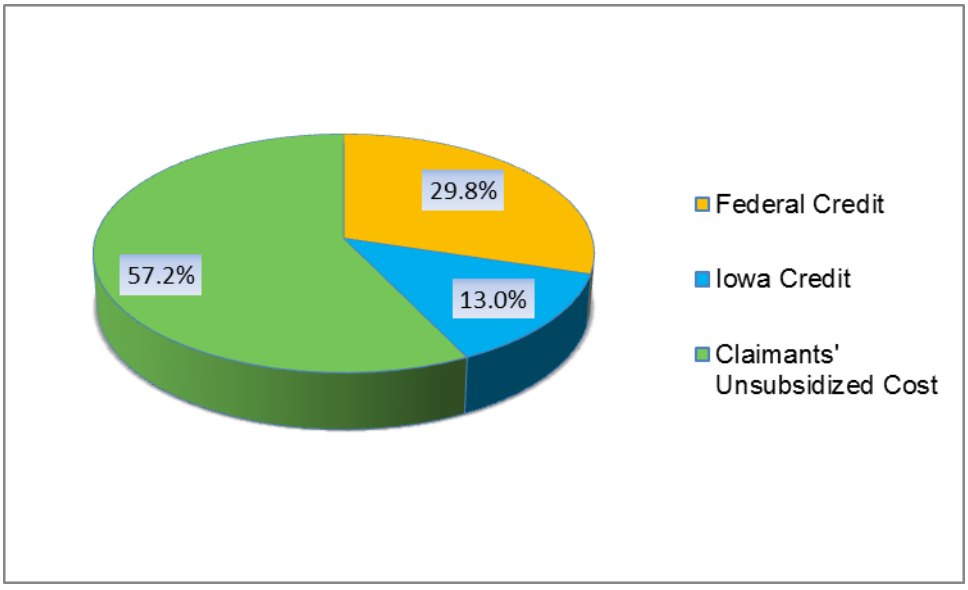
Awards made to-date reflect over $166 million in solar energy system investments by Iowans (see Table 3). The average reported residential installation costs increased from $25,185 in 2016 to $27,013 in 2017. The reported average cost of a business solar energy system installation decreased from $77,698 in 2016 to $74,045 in 2017, based on applications approved to-date. The count of installations for which awards have been approved increased from 664 in 2015 to 838 in 2016. The approved solar energy system applications for calendar year 2017 installations total 346 to-date. Installations for 2017 are incomplete as taxpayers have until May 1, 2018 to submit their applications and the count does not include applications on the 2018 waitlist.

Table 3. Solar Energy System Tax Credit Installation Costs by Installation Year

Installation Year	Residential Installations			Business Installations			Total	
	Count	Total Cost	Average Cost	Count	Total Cost	Average Cost	Count	Total Cost
2012	159	$2,749,004	$17,289	45	$3,057,192	$67,938	204	$5,806,196
2013	312	$6,219,981	$19,936	190	$14,556,940	$76,615	502	$20,776,921
2014	410	$11,575,608	$28,233	431	$34,067,554	$79,043	841	$45,643,162
2015	397	$10,140,797	$25,544	267	$24,335,787	$91,145	664	$34,476,584
2016	399	$10,049,013	$25,185	439	$34,109,474	$77,698	838	$44,158,487
2017	213	$5,753,852	$27,013	133	$9,754,220	$74,045	346	$15,508,072
Total	1,890	$46,488,255	$24,597	1,505	$119,881,167	$79,655	3,395	$166,369,422

Over the life of the tax credit, taxpayers have incurred $166.4 million in installation costs for qualifying solar projects. Federal tax credits have subsidized 29.8 percent of the total installation cost and the Iowa Solar Energy System Tax Credits have subsidized another 13 percent, leaving $95.3 million unsubsidized (see Figure 3).

Figure 3. Distribution of Solar Energy System Tax Credit Installation Costs from Award Years 2012-2017



During the 2014 application year, IDR began collecting the total kilowatt capacity (KW) of each solar energy system installed. Beginning in 2015, 99.5 to 100 percent of installations for business applications included KW. Awards include amended applications for years which KW were not collected. Because some residential applications are for solar fans, such that KW capacity is not applicable, the shares reporting KW are less than 100 percent. The residential applications reporting KW accounted for 98.1 percent of total residential installation costs in 2015, 99.3 percent in 2016, and roughly 100 percent so far in 2017. During 2017, for the applications processed to-date, business applicants reported a total of 4,206 KW installed and residential applications reported a total of 2,123 KW. The average capacity of a residential solar energy system was 8.9 KW in 2016, increasing to 10 KW in 2017; the average capacity of a business solar energy system was 28.9 KW in 2016, increasing to 31.6 KW in 2017.

Table 4. Total KW of the Solar Systems Installed Yearly by Application Type

Installation Year	Application Type	Number of Installations that Reported KW	Total Cost of Systems Reporting KW	Total KW	Average KW	Percent of Installation Costs with KW Reported	Percent of Installations Reporting KW
2014	Business	366	$29,205,522	9,292	25.4	85.7%	84.9%
	Residential	280	$8,267,253	2,441	8.7	71.4%	68.3%
2015	Business	267	$24,335,787	8,175	30.6	100.0%	100.0%
	Residential	352	$9,948,995	3,148	8.9	98.1%	88.7%
2016	Business	437	$34,100,474	12,635	28.9	100.0%	99.5%
	Residential	381	$9,977,231	3,382	8.9	99.3%	95.5%
2017	Business	133	$9,754,220	4,206	31.6	100.0%	100.0%
	Residential	212	$5,752,702	2,123	10.0	100.0%	99.5%
Total		2,428	$131,342,184	45,402	19		

Note: 2017 as of December 29, 2017

Claiming the Solar Energy System Tax Credit

Taxpayers receiving tax credit awards claim the Solar Energy System Tax Credit using the IA 148 Tax Credits Schedule. They must include the tax credit certificate number on the IA 148. Business tax credit awards received by pass-through entities or sole proprietors, such as farmers, can be claimed by the owners, partners, or shareholders on their individual income tax return. Therefore, the number and amount of claims made by individuals is greater than the number of awards issued for residential installations.

The Solar Energy System Tax Credit is nonrefundable meaning that it can only be used to offset Iowa tax liability; any tax credit amount in excess of tax liability may be credited to the tax liability for the following ten tax years or until depleted, whichever is earlier.

Summary of Solar Energy System Tax Credit Claims

During the first five tax years for which claims could be made, $14.9 million of Solar Energy System Tax Credits have been reported on the IA 148, with $11.3 million of those credits used to offset Iowa tax liability (see Table 5). Based on tax year 2016

claims verified to-date, new claims totaled $4.3 million and claims carried forward from prior year awards totaled $3.1 million. Of the total $7.4 million claims available, $4.1 million was applied against tax liability and $3.5 million in credits were carried forward to be claimed in tax years 2017 or later.

Table 5. Solar Energy System Tax Claims by Tax Year

Tax Year	Number of Tax Credit Claims	Total Amount of Tax Credits Carried Forward from Previous Year	Total Current Year Amount of Tax Credits	Total Amount of Tax Credits Available	Total Amount of Tax Credits Applied to Tax Liability	Amount of Tax Credits Carried Forward
2012	240	$0	$675,103	$675,103	$454,884	$225,186
2013	430	$187,814	$1,549,706	$1,737,520	$991,317	$752,233
2014	1,122	$698,721	$4,004,001	$4,719,064	$2,488,970	$2,271,070
2015	1,429	$2,155,551	$4,364,119	$6,504,716	$3,258,477	$3,446,596
2016	1,586	$3,107,930	$4,288,099	$7,394,782	$4,099,267	$3,452,757
Total	4,807	$6,150,016	$14,881,028		$11,292,915	

Note:Claim collection and verification is incomplete for tax years 2015 or later.

Note that the total amount of tax credits applied to tax liability and the total amount of tax credits carried forward in a tax year can exceed the amount of tax credits awarded for installations completed for that same year. A fiscal year filer may claim the tax credit on the previous tax year return if the installation was completed during the following year that falls within the prior fiscal year. For example, a taxpayer could have a 2015 tax year that began May 1, 2015 and extended through April 30, 2016. If the 2016 installation was completed prior to April 30, 2016, the 2016 award could be claimed on the 2015 tax return.

Tax year 2016 claims include both those credits awarded for 2016 and credits carried forward from tax year 2015 claims. IDR is in the process of verifying tax years 2015 and 2016 claims for 139 taxpayers that failed to include a valid tax credit certificate number, and will deny those claims if an award cannot be identified. The claims without a valid tax credit certificate number total $46,074 in applied claims and $72,650 in carry forward which are included in the numbers above. All other claims have been matched to tax credit awards; however, ongoing tax compliance efforts and amended returns can result in slight changes to historical counts and amounts.

Table 6 summarizes the Solar Energy System Tax Credit claims by tax type each year. The average amount of tax credits applied to tax liability for a corporation was $2,418, individuals was $2,593, and no claims have been applied to franchise tax on 2016 tax returns filed and verified to-date.

Table 6. Solar Energy System Tax Credit Claims Applied by Tax Type

Tax Year	Tax Type	Total Amount of Tax Credits Applied to Tax Liability	Average Amount of Tax Credits Applied to Tax Liability
2012	Individual	$405,593	$1,756
	Corporation	$49,291	$5,477
2013	Individual	$851,043	$2,160
	Corporation	$140,274	$3,897
2014	Individual	$2,244,698	$2,136
	Corporation	$177,245	$2,645
	Franchise	$67,027	$16,757
2015	Individual	$3,044,341	$2,260
	Corporation	$204,445	$2,524
	Franchise	$9,691	$9,691
2016	Individual	$3,908,282	$2,593
	Corporation	$190,985	$2,418
	Franchise	$0	$0

Source: Iowa Department of Revenue CACTAS Claim Database

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