







#### ABOUT THE SOLAR FOUNDATION®

The Solar Foundation® (TSF) is an independent 501(c)(3) nonprofit organization whose mission is to increase understanding of solar energy through strategic research and education that transforms markets. TSF is considered the premier research organization on the solar labor workforce, employer trends, and the economic impacts of solar. It has provided expert advice to leading organizations such as the National Academies, the Inter-American Development Bank, the U.S. Department of Energy, and others during a time of dynamic industry growth and policy and economic uncertainty.

While TSF recognizes that solar energy is a key part of our energy future, it is committed to excellence in its aim to help people fairly and objectively gauge the value and importance of solar technologies.

#### ABOUT BW RESEARCH PARTNERSHIP

BW Research is widely regarded as the national leader in labor market research for emerging industries and clean energy technologies. In addition to the *Census* series, BW Research has conducted rigorous solar installation and wind industry labor market analysis for the National Renewable Energy Laboratory, wind energy and energy retrofit studies for the Natural Resources Defense Council, a series of comprehensive clean energy workforce studies for the Commonwealth of Massachusetts, Illinois, Vermont, Florida, Pennsylvania, Iowa, and California, as well as numerous skills and gap analyses for community colleges, workforce investment boards, state agencies, and nonprofit organizations.

# ABOUT THE NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT, ENERGY CONSERVATION AND MANAGEMENT DIVISION

2015 was a banner year for the New Mexico Energy, Minerals & Natural Resources Department. Governor Susana Martinez unveiled New Mexico's first comprehensive energy policy and plan in nearly 25 years. This plan will ensure the state will expand its role as an energy leader while continuing to provide income and create jobs across energy industries.

As part of the Department, the Energy Conservation and Management Division develops and implements effective clean energy programs-renewable energy, energy efficiency, alternative fuels, and safe transportation of radioactive waste - to promote economic growth, environmental sustainability, and wise stewardship of our natural resources while protecting public health and safety for New Mexico and its citizens. ECMD programs are implemented through a combination of system certifications, clean energy projects, and public outreach. Through these efforts, ECMD encourages public and private organizations to use energy more efficiently, more economically, and with less dependence on foreign sources. Benefits to New Mexico include economic development, modern infrastructure, strength through diversity and job creation. For more please visit CleanEnergyNM.org.

## **ACKNOWLEDGEMENTS**

The Solar Foundation® (TSF) is a national 501(c) (3) nonprofit organization whose mission is to increase understanding of solar energy through strategic research and education that transform markets. In 2010, TSF conducted its first *National Solar Jobs Census* report, establishing the first credible solar jobs baseline and verifying that the solar industry is having a positive impact on the U.S. economy. Using the same rigorous, peer-reviewed methodology, TSF has conducted an annual Census in each of the last six years to track changes and analyze trends.

This New Mexico Solar Jobs Census 2015 report is an offshoot of TSF's National Solar Jobs Census 2015 effort. Research partners for the Census 2015 effort include the New Mexico Energy, Minerals and Natural Resources Department for providing editorial guidance and peer review, the George Washington University Solar Institute for providing assistance and support in reviewing and validating report

results and analysis; the Solar Energy Industries Association (SEIA) for use of its National Solar Database and peer review; and GTM Research/SEIA for providing survey respondents with the U.S. Solar Market Insight: 2014 YIR report.

Sponsors of this year's *Census* effort include: Energy Foundation, William and Flora Hewlett Foundation, Tilia Fund, George Washington University Solar Institute, SEIA, Recurrent, SolarCity, First Solar, Sol Systems, E.ON, Trina Solar, State of Minnesota Department of Commerce, State of New Mexico Energy Minerals and Natural Resources Department, Utah Governor's Office of Energy Development, sPower, Standard Solar, CALSEIA, All Earth Renewables, and groSolar.

Finally, we want to thank all the New Mexico employers that participated in the survey. Your responses were critical in providing us with accurate and timely data.

#### For questions or comments about this report, please contact either:

Andrea Luecke
President and Executive Director
The Solar Foundation®
202-469-3750; aluecke@solarfound.org
www.TheSolarFoundation.org

Philip Jordan
Principal and Vice President
BW Research Partnership
508-384-2471; pjordan@bwresearch.com
www.bwresearch.com

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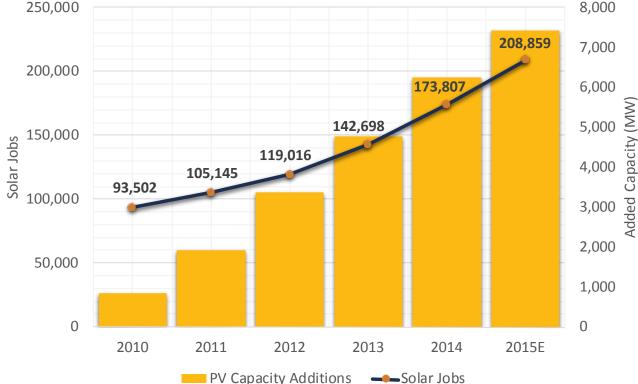
# INTRODUCTION

The U.S. solar industry experienced yet another record-breaking year in 2015, with more than 7,400 megawatts (MW) of domestic photovoltaic (PV) capacity expected to have been installed – an 18.5% increase over the amount installed in 2014 – bringing total U.S. solar capacity to nearly 27.5 gigawatts (GW).<sup>1</sup>

As the rate of capacity installation has accelerated, employers across the country have

continued to expand the size of their payrolls. This year's sixth annual National Solar Jobs Census found that the U.S. solar industry employed 208,859 workers as of November 2015, an addition of 35,052 jobs, and a 20.2% increase in employment over November 2014. Since The Solar Foundation began tracking these numbers in 2010, employment in the industry has more than doubled, growing by 123% and adding over 115,000 jobs. Employers nationwide expect this growth trend to continue through 2016, projecting to add nearly 31,000 jobs to the solar workforce over the course of the year.





Capacity Data Source: SEIA/GTM Research Solar Market Insight Q3 2015

With among the best average year-round levels of solar radiation in the country, New Mexico – the Land of Enchantment – seems tailor-made to host a thriving solar energy market.<sup>2</sup> It has, however, lagged behind its Southwestern neighbors in capacity installation, with just over 360 MW installed in the state as of September 2015.<sup>3</sup> Nevada on the other hand, most resembling New Mexico in terms of both average solar radiation and population size, boasts nearly three times as much currently installed capacity. Despite this, as of November 2015, 1,899 workers were employed by the solar industry in the state.<sup>4</sup>

The solar market in New Mexico has historically been dominated by utility-scale development, which spiked in 2011 with the commissioning of a handful of large-scale projects across the state.<sup>5</sup> Capacity additions from large-scale projects dropped off substantially in 2012 though, providing an opportunity for the residential and non-residential market segments, developing small- and medium-scale projects, to establish a significant and growing presence in the state.

Annual capacity additions by New Mexico's residential market segment have been growing since 2012, and industry experts anticipate residential additions in 2016 to nearly double those of 2015.<sup>6</sup> In April, the nation's largest residential installation company, SolarCity, announced it would be opening a new operations center in Albuquerque, representing a significant commitment to the New Mexico market and reflecting a level of confidence that the state's policy environment was conducive to sustained growth.<sup>7</sup>

In 2006, the New Mexico Legislature passed into law the Solar Market Development Tax Credit (STC). Administered by the state's Energy, Minerals and Natural Resources Department, the STC is available to individual solar customers, effectively reducing the cost of their solar systems by 10% (up to \$9,000).8 Though the STC is scheduled to expire at the end

of 2016, an extension of the popular benefit has been proposed by legislators from both sides of the political spectrum and is the subject of ongoing debate in Santa Fe.<sup>9</sup>

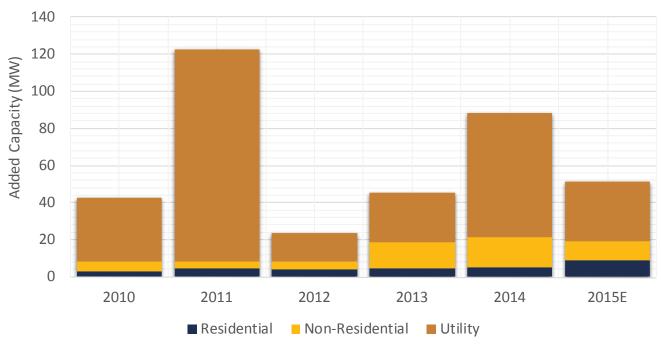
The New Mexico solar industry also benefits from technology-specific requirements built into the state's renewable portfolio standard (RPS). Passed in 2004, the RPS stipulates that the state's investor-owned utilities will meet 20% of their customers' electricity demand with clean energy sources by 2020 – of this, 20%

# As of November 2015, 1,899 workers were employed by the solar industry in the state of New Mexico.

must be met with solar energy, while another 3% must be met with generation from distributed renewables by 2015. 10 Interestingly, distributed solar cannot simultaneously count toward both requirements, further driving development by the residential and non-residential market segments to meet both requirements.

After a drop-off in capacity additions in 2015, industry experts anticipate the New Mexico solar industry to return to growth with a banner year in 2016, driven largely by a resurgence in utility-scale development. The year has seen the announcements of multiple utility-scale projects, some of which have already been completed, as well as many to come later in 2016 and beyond.<sup>11</sup> Solar employers in the state anticipate hiring accordingly, adding more than 230 jobs in 2016, expanding their payrolls by 12.3%.<sup>12</sup>





Source: SEIA/GTM Research Solar Market Insight Q3 2015

#### **ABOUT THE NEW MEXICO SOLAR JOBS CENSUS 2015**

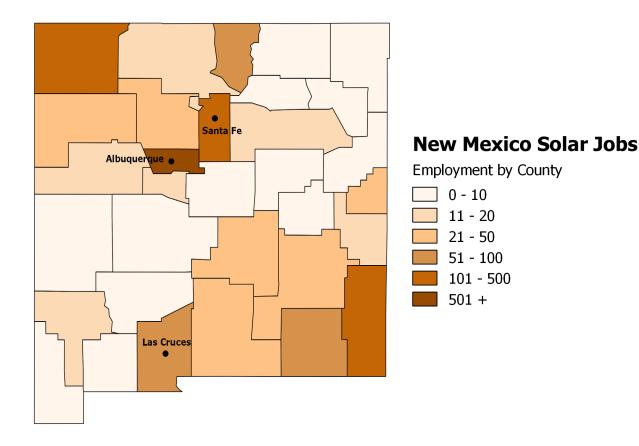
This report includes information about all types of New Mexico companies engaged in the analysis, research and development, production, sales, installation, and use of all solar technologies – ranging from solar photovoltaics (PV), to concentrating solar power (CSP), to solar water heating systems for the residential, commercial, industrial, and utility market segments.

The findings presented herein are based on rigorous survey efforts throughout the months of September, October, and November 2015 that include telephone calls and emails to known and potential solar establishments across New Mexico. Unlike economic impact models that generate employment estimates based on economic data or jobs-per-megawatt (or jobs-per-dollar) assumptions, The Solar Foundation's

Solar Jobs Census series provides statistically valid and current data gathered from actual employers. This analysis also purposefully avoids artificially inflating its results with questionable multiplier effects often found in analyses of other industries.

The number of establishments included in this report include all businesses that conduct any solar activity. This includes many businesses that play a very small part in a solar project, or provide financing, legal services, or other support services to solar firms. Employment, however, is only counted for workers that spend at least 50% of their time on solar.

A full explanation of this methodology can be found on page 10 of this report.



# NEW MEXICO SOLAR JOBS

**Key Data Points** 

Total Solar Jobs, 2015

1,899

Cumulative Installed Capacity thru Q3 2015 (MW)<sup>13</sup>

361.4

Projected Solar Jobs Growth, 2016

234 (12.3%)

Capacity Installed in 2015 thru Q3 (MW)<sup>14</sup>

36.8

**Installation Jobs** 

**578** 

**Manufacturing Jobs** 

396

Sales & Distribution Jobs

346

**Project Development Jobs** 

**250** 

Other Jobs

**330** 

# WORKFORCE OVERVIEW

The New Mexico solar industry employs 1,899 workers at 651 establishments throughout the state. The state is ranked 27th nationally in solar jobs and 7th in solar jobs as a share of New Mexico's total employment. Employers expect to add around 234 new solar workers to payrolls over the course of 2016 – a growth rate of 12.3% – while the state's workforce as a whole is projected to grow only 0.9% during the same period.<sup>15</sup>

Installation firms employ the largest portion – more than 30% – of the New Mexico solar workforce, followed by manufacturing firms, at nearly 21%. This differs rather significantly from the solar industry nationally, in which 57.4% of the workforce is employed by installation firms and only 14.5% of workers are employed by manufacturing firms. Similarly, research and development firms, solar financing and legal firms, nonprofits, government agencies, solar training providers, and academic research centers – all of which are referred to collectively as "other" herein – represent more than 17% of the state's solar workforce, or three times their percentage nationally.

#### Solar Jobs Census 2015

Sector	NM Solar Workforce	U.S. Solar Workforce
Installation	30.4%	57.4%
Manufacturing	20.9%	14.5%
Sales & Distribution	18.2%	11.7%
Project Development	13.2%	10.8%
Other	17.4%	5.7%

It is also interesting to note that New Mexico employers report two out of five solar workers in the state work directly on the production or manufacture of solar-related equipment or materials, potentially signifying that many solar firms in the state that do not self-identify primarily as manufacturing firms are much more involved in the manufacturing process than their counterparts nationwide.

	New Mexico Solar Workforce	NEW MEXICO OVERALL EMPLOYMENT <sup>16</sup>	U.S. SOLAR WORKFORCE
Women	21.8%	46.0%	23.8%
AFRICAN-AMERICAN	4.3%	2.7%	5.1%
Asian or Pacific Islander	6.2%	2.5%	8.6%
LATINO OR HISPANIC	39.5%	44.4%	11.3%
Older Workers (55+)	15.8%	24.6%	18.6%
Union Members	-	-	5.5%
VETERANS OF THE U.S. ARMED FORCES	11.4%	9.0%	8.1%

The New Mexico solar workforce is generally less diverse than the state's workforce as a whole, with women (21.8%), Latinos (39.5%), and older workers (15.8%) all relatively underrepresented, although Latino solar workers in the state are nearly four times more common than in the U.S. solar workforce as a whole. Interestingly, both African-Americans and Asian or Pacific Islanders participate in the New Mexico solar workforce at roughly twice their respective participation rates in the state's overall workforce, though still not at the level they participate in the industry elsewhere in the country.

Veterans of the U.S. Armed Forces represent a uniquely valuable source of human capital for

solar employers. With a proven work ethic and practiced discipline, veterans bring a wealth of readily transferable skills and leadership acumen to the industry. Through the Solar Ready Vets program, the U.S. Department of Energy is helping the industry capitalize on this resource by facilitating the transition from military service to employment in the civilian solar workforce.<sup>17</sup> New Mexico solar firms clearly understand this value proposition, with veterans comprising 11.4% of the state's solar workforce, compared to just 9.0% of the state's total workforce and 8.1% of the solar workforce nationally.

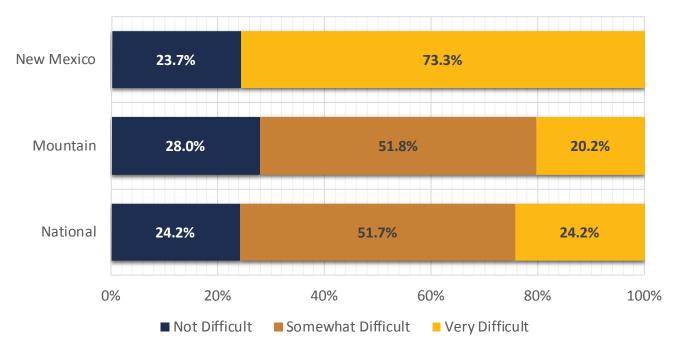
Position	Mountain Division Median Wage	U.S. Median Wage
Solar Installer	\$20.00	\$21.00
SOLAR SALES REPRESENTATIVE	\$33.65	\$28.85
SOLAR SYSTEM DESIGNER	\$25.50	\$26.92
Solar Assembly Worker	-	\$18.00

Wages paid by firms in the New Mexico solar industry do not differ in a significant way from those paid by solar employers across the other states comprising the U.S. Census Bureau's Mountain Division. Solar installers and system designers are generally paid below the median wages for their counterparts in the industry across the rest of the country, while solar sales representatives are paid slightly better.

Solar employers in New Mexico experience a great deal more difficulty on average finding qualified candidates to fill openings on their pay-

rolls than other solar firms across the country. In fact, 73.3% of the state's employers reported finding it "very difficult" to find such candidates, one of the highest percentages out of any state in the country. This is very likely related to the fact that nearly 86% of all positions hired for by solar employers in New Mexico, and the other states in the Mountain Division, during 2015 required previous solar experience. This further reinforces the premise that a relative lack of trained and experienced talent is a problem throughout the solar industry nationwide.

#### Difficulty Hiring in New Mexico

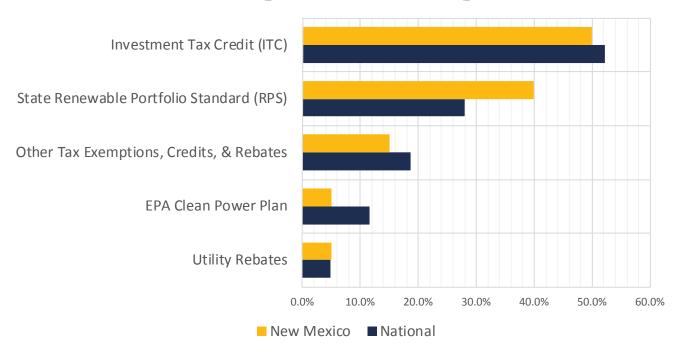


Approximately 55% of New Mexico solar firms reported that they receive all of their revenues from solar activities, which is higher than the national average of 48.2%, while only 20% reported that they receive less than half of their revenues from solar activities, compared to 28.5% nationally. A slightly smaller portion of the state's solar firms (60.0%) work primarily with in-state customers than solar firms nationally (65.6%) – perhaps a function of the state's larger-than-average manufacturing sector.

As part of the 2015 Census effort, employers were asked about the impacts of specific existing, pending, and proposed policies on their

business prospects. New Mexico employers largely cite the federal investment tax credit (ITC) as substantially contributing to their firms' success, with 50% of respondents referring to it directly, while the state's RPS was cited by 40% of employers. Interestingly, only 5% of the state's solar employers expect the Clean Power Plan to substantively contribute to their firms' success, which is less than half of the 11.6% of employers who expect such a contribution nationally.

#### **Businesses Citing Policies Contributing to Success**



## CONCLUSION

While it is expected that 2015 capacity additions by the New Mexico solar industry fell short of 2014's totals, the industry projects a dramatic ramp-up throughout 2016, with the residential, non-residential. utility-scale and segments all experiencing significant growth. In light of these expectations, employers in the state have begun hiring accordingly. At 1.899 workers, the state's solar workforce is the 27th largest in the country, though in this regard, it still lags well behind all of its neighbors in the desert Southwest, with Arizona and Nevada employing more than three and four times as many solar workers respectively.<sup>19</sup> Despite this, employers are expecting to expand their payrolls in 2016, adding roughly 234 positions, representing 12.3% growth - more than thirteen times the growth expected for the state's workforce economywide, but slightly lower than the 14.7% growth expected for the U.S. solar industry at large.

Mexico's solar-friendly policy regulatory environment has proven essential for the industry's growth in the state and will continue to be in the years to come. As the utility requirements under the state's RPS ratchet up from 15% to 20% renewables by the time of its culmination in 2020, the utility-scale market segment is likely to continue to be responsible for the majority of the state's solar capacity additions. Meanwhile, capacity additions by the state's residential and non-residential market segments will almost certainly continue to grow as the costs associated with installing small-scale solar systems continues to fall. This growth, however, could either be tempered or enhanced by the outcome of the debate around the extension of the Solar Market Development Tax Credit beyond its currently scheduled expiration at the end of 2016.

Regardless of how this particular policy discussion pans out, the sun-drenched geographic realities of the Land of Enchantment and the ever-decreasing costs associated with solar all but ensure the viability of the New Mexico solar industry in the long-term. In order to sustain this future growth, it is essential that Florida employers have ready access to quality talent and skilled labor or enhance their on-the-job training offerings. To achieve this, more focused and comprehensive solar training efforts – in-house, in-state, and across the country – must be sufficiently emphasized. These efforts would reduce the industry's talent acquisition, training, and retention costs, increasing efficiency across the solar value chain, and ultimately reducing costs for Florida solar customers.

This research establishes the first-ever baseline solar employment numbers for the state of New Mexico and shows that the local solar industry is a growing source of economic opportunity, creating jobs that pay living wages and are largely available to individuals of different backgrounds from across the state. Only regular reexaminations of the state's solar industry, its workforce, and the employment opportunities presented herein will confirm this potential is realized in years to come.

# **APPENDIX**

#### STATE CENSUS METHODOLOGY AND DATA SOURCES

The *Solar Jobs Census* methodology is the most closely aligned with the Bureau of Labor Statistics' (BLS) methodology for its Quarterly Census of Employment and Wages (QCEW) and Current Employment Statistics (CES). Like BLS, this study uses survey questionnaires and employer-reported data, though ours are administered by phone and web, as opposed to mail.

Also like BLS, we develop a hierarchy of various categories that represent solar value chain activities (within their broader NAICS framework), develop representative sample frames, and use statistical analysis and extrapolation in a very similar manner to BLS. We also constrain our universe of establishments by relying on the most recent data from the BLS or the state departments of labor, depending on which is collected most recently. We believe that the categories that we have developed could be readily adopted by BLS should it choose to begin to quantify solar employment in its QCEW and CES series.

The results from the overall 2015 *Census* effort are based on rigorous survey efforts that include 287,962 telephone calls and over 44,220 emails to known and potential energy establishments across the United States, resulting in a total of 2,350 full completions for solar establishments in the U.S. Unlike economic impact models that generate employment estimates based on economic data or jobs-per-megawatt (or jobs-per-dollar) assumptions, the *Solar Jobs Census* series provides statistically valid and current data gathered from actual employers.

The survey was administered to a *known* universe of energy employers that includes 68,494 establishments and is derived from the Solar Energy Industry Association's *National Solar Database*, as well as other public and private

sources. Of these establishments, 2,118 identified as solar and completed full or substantially completed surveys.

The survey was also administered to a stratified, clustered, random sampling from various industries that are potentially energy-related (*unknown universe*) that include a total of approximately 314,000 establishments nationwide. After an extensive cleaning and de-duplication process, a sampling plan was developed that gathered information on the level of solar activity (including none) from 12,765 establishments. Of these, 327 establishments qualified as solar establishments and completed full surveys. The sampling rigor in the known and unknown universes provides a margin of error for establishment counts at +/-0.85% and employment at +/-1.99% at a 95% confidence interval.

This level of national sampling rigor is mirrored at the state level. In addition to the known *Census*, the clustered sampling in the unknown universe is representative relative to establishment totals by size in each of the 50 states and the District of Columbia. This ensures that each state's employment estimates are accurate with a maximum margin of error under +/-5% at a 95% confidence interval.

Due to the number of qualifying responses, some smaller states have higher margins of error for non-employment related questions, such as workforce and policy related questions, due to the small universe of solar establishments in each state. As a result, some state-level, non-employment data is reported using regional averages or have footnotes denoting small response sizes.

#### **GEOGRAPHIC REPRESENTATION OF DATA**

In addition to the statewide results detailed herein, the *Solar Jobs Census 2015* effort compiled comprehensive information about the distribution of solar workers across each state. The *Solar Jobs Census 2015* companion website, **Solar States.org**, houses solar jobs data for each state and the District of Columbia. Here, the employment data have been broken out and

represented in map form at the state, federal congressional district, state legislative district, metropolitan statistical area, and county levels. What follows are tables presenting the employment counts and demographic breakdowns of the workforce at each specified level of granularity previously mentioned.

#### **NEW MEXICO FEDERAL CONGRESSIONAL DISTRICTS**

District	Total Employment	Women	African- American	Asian or Pacific Islanders	Latino or Hispanic	Older Workers (55+)	Union Members	Veterans of the US Armed Forces
1	959	196	65	65	22	177	22	40
2	439	90	30	30	10	81	10	18
3	501	102	34	34	11	92	11	21

#### **NEW MEXICO STATE SENATE**

District	Total Employment	Women	African- American	Asian or Pacific Islanders	Latino or Hispanic	Older Workers (55+)	Union Members	Veterans of the US Armed Forces
1	117	24	8	8	3	22	3	5
2	30	6	2	2	1	6	1	1
3	27	6	2	2	1	5	1	1
4	18	4	1	1	0	3	0	1
5	61	13	4	4	1	11	1	3
6	28	6	2	2	1	5	1	1
7	31	6	2	2	1	6	1	1
8	33	7	2	2	1	6	1	1
9	66	13	4	4	1	12	1	3
10	304	62	21	21	7	56	7	13
11	87	18	6	6	2	16	2	4
12	255	52	17	17	6	47	6	11
13	140	29	10	10	3	26	3	6
14	0	0	0	0	0	0	0	0
15	45	9	3	3	1	8	1	2
16	44	9	3	3	1	8	1	2
17	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0

District	Total Employment	Women	African- American	Asian or Pacific Islanders	Latino or Hispanic	Older Workers (55+)	Union Members	Veterans of the US Armed Forces
19	19	4	1	1	0	3	0	1
20	8	2	1	1	0	1	0	0
21	0	0	0	0	0	0	0	0
22	6	1	0	0	0	1	0	0
23	0	0	0	0	0	0	0	0
24	147	30	10	10	3	27	3	6
25	1	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0
27	88	18	6	6	2	16	2	4
28	34	7	2	2	1	6	1	1
29	21	4	1	1	0	4	0	1
30	0	0	0	0	0	0	0	0
31	50	10	3	3	1	9	1	2
32	36	7	2	2	1	7	1	2
33	43	9	3	3	1	8	1	2
34	33	7	2	2	1	6	1	1
35	26	5	2	2	1	5	1	1
36	5	1	0	0	0	1	0	0
37	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0
39	3	1	0	0	0	1	0	0
40	0	0	0	0	0	0	0	0
41	84	17	6	6	2	15	2	4
42	8	2	1	1	0	1	0	0

#### **NEW MEXICO STATE HOUSE OF REPRESENTATIVES**

District	Total Employment	Women	African- American	Asian or Pacific Islanders	Latino or Hispanic	Older Workers (55+)	Union Members	Veterans of the US Armed Forces
1	124	25	8	8	3	23	3	5
2	19	4	1	1	0	3	0	1
3	1	0	0	0	0	0	0	0
4	3	1	0	0	0	1	0	0
5	33	7	2	2	1	6	1	1
6	14	3	1	1	0	3	0	1
7	19	4	1	1	0	4	0	1
8	1	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0
10	298	61	20	20	7	55	7	13

District	Total Employment	Women	African- American	Asian or Pacific Islanders	Latino or Hispanic	Older Workers (55+)	Union Members	Veterans of the US Armed Forces
11	325	67	22	22	7	60	7	14
12	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
15	183	37	12	12	4	34	4	8
16	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0
18	52	11	4	4	1	10	1	2
19	0	0	0	0	0	0	0	0
20	26	5	2	2	1	5	1	1
21	0	0	0	0	0	0	0	0
22	11	2	1	1	0	2	0	0
23	28	6	2	2	1	5	1	1
24	25	5	2	2	1	5	1	1
25	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0
27	8	2	1	1	0	1	0	0
28	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0
32	28	6	2	2	1	5	1	1
33	46	9	3	3	1	8	1	2
34	6	1	0	0	0	1	0	0
35	4	1	0	0	0	1	0	0
36	4	1	0	0	0	1	0	0
37	0	0	0	0	0	0	0	0
38	9	2	1	1	0	2	0	0
39	2	0	0	0	0	0	0	0
40	41	8	3	3	1	8	1	2
41	59	12	4	4	1	11	1	2
42	1	0	0	0	0	0	0	0
43	67	14	5	5	2	12	2	3
44	5	1	0	0	0	1	0	0
45	71	14	5	5	2	13	2	3
46	29	6	2	2	1	5	1	1
47	0	0	0	0	0	0	0	0
48	0	0	0	0	0	0	0	0
49	13	3	1	1	0	2	0	1

District	Total Employment	Women	African- American	Asian or Pacific Islanders	Latino or Hispanic	Older Workers (55+)	Union Members	Veterans of the US Armed Forces
50	9	2	1	1	0	2	0	0
51	23	5	2	2	1	4	1	1
52	1	0	0	0	0	0	0	0
53	4	1	0	0	0	1	0	0
54	79	16	5	5	2	15	2	3
55	5	1	0	0	0	1	0	0
56	16	3	1	1	0	3	0	1
57	0	0	0	0	0	0	0	0
58	36	7	2	2	1	7	1	2
59	7	1	0	0	0	1	0	0
60	0	0	0	0	0	0	0	0
61	102	21	7	7	2	19	2	4
62	3	1	0	0	0	1	0	0
63	40	8	3	3	1	7	1	2
64	2	0	0	0	0	0	0	0
65	3	1	0	0	0	1	0	0
66	7	1	0	0	0	1	0	0
67	11	2	1	1	0	2	0	0
68	0	0	0	0	0	0	0	0
69	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0

#### **NEW MEXICO METROPOLITAN STATISTICAL AREAS**

Metropolitan Statistical Area	Total Employment	Women	African- American	Asian or Pacific Islanders	Latino or Hispanic	Older Workers (55+)	Union Members	Veterans of the US Armed Forces
Albuquerque, NM	997	204	68	68	23	184	23	42
Farmington, NM	148	30	10	10	3	27	3	6
Las Cruces, NM	63	13	4	4	1	12	1	3
NM NONMETRO- POLITAN AREA	530	108	36	36	12	98	12	22
Santa Fe, NM	160	33	11	11	4	30	4	7

#### **NEW MEXICO COUNTIES**

County	Total Employment	Women	African- American	Asian or Pacific Islanders	Latino or Hispanic	Older Workers (55+)	Union Members	Veterans of the US Armed Forces
Bernalillo	922	189	63	63	21	170	21	39
Catron	5	1	0	0	0	1	0	0

County	Total Employment	Women	African- American	Asian or Pacific Islanders	Latino or Hispanic	Older Workers (55+)	Union Members	Veterans of the US Armed Forces
Chaves	49	10	3	3	1	9	1	2
Cibola	11	2	1	1	0	2	0	0
Colfax	10	2	1	1	0	2	0	0
Curry	21	4	1	1	0	4	0	1
De Baca	2	0	0	0	0	0	0	0
Doña Ana	64	13	4	4	1	12	1	3
Eddy	71	15	5	5	2	13	2	3
Grant	16	3	1	1	0	3	0	1
Guadalupe	6	1	0	0	0	1	0	0
Harding	1	0	0	0	0	0	0	0
Hidalgo	5	1	0	0	0	1	0	0
Lea	110	23	8	8	3	20	3	5
Lincoln	21	4	1	1	0	4	0	1
Los Alamos	11	2	1	1	0	2	0	0
Luna	10	2	1	1	0	2	0	0
McKinley	28	6	2	2	1	5	1	1
Mora	3	1	0	0	0	1	0	0
Otero	25	5	2	2	1	5	1	1
Quay	6	1	0	0	0	1	0	0
Rio Arriba	20	4	1	1	0	4	0	1
Roosevelt	14	3	1	1	0	3	0	1
San Juan	148	30	10	10	3	27	3	6
San Miguel	14	3	1	1	0	3	0	1
Sandoval	46	9	3	3	1	8	1	2
Santa Fe	160	33	11	11	4	30	4	7

### **ENDNOTES**

- 1. SEIA/GTM Research Solar Market Insight Q3 2015
- 2. National Renewable Energy Laboratory, Photovoltaic Solar Resource of the United States. Found at: <a href="http://www.nrel.gov/gis/solar.html">http://www.nrel.gov/gis/solar.html</a>
- 3. SEIA/GTM Research Solar Market Insight Q3 2015
- 4. The 2014 estimate of solar employment in New Mexico was produced using a carefully developed dual methodology one for installation and construction jobs and another for non-installation jobs (covering industry sectors such as manufacturing, sales & distribution, project development, and "other" occupations that support the solar industry). Method one used labor intensity multipliers developed internally and cross-checked with leading studies on the subject, while method two was based not only on a direct count of solar workers, but also the average number of jobs per solar establishment and total number of establishments in the state. It is also important to note that while the 2014 and 2015 methodologies differ, the results derived from the *Census* approach are statistically significant and, therefore, more credible. Details on the methodology can be found on page 10.
- The residential, non-residential, and utility-scale market segments are defined by SEIA based on the offtaker of the electricity their systems generate, though they can generally be used interchangeably with small-scale (i.e. single-family household rooftop systems, no more than a handful of kilowatts), medium-scale (i.e. multi-unit, commercial, or government rooftop system), and large-scale (i.e. ground-mounted or very large rooftop systems ranging from several hundred kilowatts to several hundred megawatts in capacity).
- 6. SEIA/GTM Research Solar Market Insight Q3 2015
- 7. SolarCity Opens First New Mexico Operations Center in Albuquerque. (2015, April 2). Retrieved January 23, 2016, from <a href="http://www.solarcity.com/newsroom/press/solarcity-opens-first-new-mexico-operations-center-albuquerque">http://www.solarcity.com/newsroom/press/solarcity-opens-first-new-mexico-operations-center-albuquerque</a>
- 8. New Mexico Energy, Minerals and Natural Resources Department, Solar Market Development Tax Credit. Retrieved January 23, 2016, from <a href="http://www.emnrd.state.nm.us/ECMD/CleanEnergyTaxIncentives/SolarTaxCredit.html">http://www.emnrd.state.nm.us/ECMD/CleanEnergyTaxIncentives/SolarTaxCredit.html</a>
- 9. Terrell, S. (2015, December 15). Legislators will reintroduce bipartisan solar tax credit bill. Retrieved January 23, 2016, from <a href="http://www.santafenewmexican.com/news/legislature/legislators-will-reintroduce-bipartisan-solar-tax-credit-bill/article\_ddf6f224-cdc5-5f48-89bc-7db67f668cd6.html">http://www.santafenewmexican.com/news/legislature/legislators-will-reintroduce-bipartisan-solar-tax-credit-bill/article\_ddf6f224-cdc5-5f48-89bc-7db67f668cd6.html</a>
- 10. New Mexico Public Regulation Commission Renewable Energy. Retrieved January 23, 2016, from <a href="http://www.nmprc.state.nm.us/utilities/renewable-energy.html">http://www.nmprc.state.nm.us/utilities/renewable-energy.html</a>
- 11. Associated Press (2016, January 22). New Mexico utility dedicates solar energy plant in Santa Fe. Retrieved January 23, 2016, from <a href="http://www.abqjournal.com/710642/biz/biz-most-recent/new-mexico-utility-dedicates-solar-energy-plant-in-santa-fe.html">http://www.abqjournal.com/710642/biz/biz-most-recent/new-mexico-utility-dedicates-solar-energy-plant-in-santa-fe.html</a>
- 12. It is important to note that these projections were based on employer-reported hiring plans for 2016 that may have since changed in light of the extension of the federal investment tax credit in December of 2015.
- 13. SEIA/GTM Research Solar Market Insight Q3 2015
- 14. *Id*
- 15. JobsEQ 2015Q3
- 16. U.S. Bureau of Labor Statistics, "Employment status of the civilian noninstitutional population by state -- 2014 Annual Averages" and "Employment status of veterans 18 years and over by state - 2014 Annual Averages". Found at: http://www.bls.gov/
- 17. See, U.S. Department of Energy Solar Ready Vets. Available at: <a href="http://energy.gov/eere/sunshot/solar-ready-vets">http://energy.gov/eere/sunshot/solar-ready-vets</a>
- 18. U.S Census Bureau, "Geographic Terms and Concepts Census Divisions and Census Regions." Found at: <a href="https://www.census.gov/geo/reference/gtc/gtc\_census\_divreg.html">https://www.census.gov/geo/reference/gtc/gtc\_census\_divreg.html</a>
- 19. At the end of 2015, Nevada regulators modified the state's existing net metering provisions reducing the amount of compensation solar customers receive for their excess generation from the retail electricity rate to the wholesale electricity rate and increased the fixed service fee charged to solar customers. These changes have been applied both proactively and retroactively, significantly impacting the economics of rooftop solar in the state. Because of these changes, major solar companies involved in residential and non-residential installation in Nevada have announced their imminent withdrawal from the state, representing the loss of hundreds of Nevada solar jobs. These losses have not been accounted for by the Census 2015 numbers for the state.

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For questions about this report, please contact Andrea Luecke at The Solar Foundation, aluecke@solarfound.org.





Washington, DC | (202) 469-3750

www.TheSolarFoundation.org