

To: Policymakers, media, other interested parties

From: E2

Date: August 14, 2023

MEMORANDUM

Clean Economy Works: IRA One-Year Review



INTRODUCTION

One year after the Inflation Reduction Act (IRA) was signed into law on August 16, 2022, private industry has announced at least 210 major new clean energy and clean vehicle projects across the country, according to E2's findings. Based on publicly available information from 178 of the 210 announcements that included new jobs and/or investment estimates, if completed the projects would create at minimum 74,181 new jobs and bring in \$86.3 billion in private investments.

These announcements are expected to drive a major boost in new clean energy jobs in the coming years, compared to clean energy employment growth before the IRA. Not including 2020 job losses fueled by COVID-19 shutdowns and ensuing economic crisis, clean energy has averaged an annual increase of 117,000 jobs since 2018. The jobs and investments estimated in the more than 200 announcements would represent a sizable increase in annual employment growth in clean energy and is indicative of a coming wave of job gains on the horizon unequaled in the history of the clean energy sector -- presuming normal employment gains based on overall market growth, projects announced and in development before the IRA was signed, and smaller investments and new projects that are unable to be tracked by this analysis. In addition, only 142 of the announcements included a temporary and/or permanent job creation estimate — leaving one-third of new announcements without any employment estimates as of the time of this analysis.

The growth is across the clean economy. Automakers and their suppliers are building or expanding 115 electric vehicle or battery plants and related factories in 21 states throughout the country. Solar panel and equipment manufacturers that previously avoided building in America due to high costs and policy uncertainties are now building or expanding nearly 30 factories in 18 states. Electric grid and transmission projects that were stalled for decades are getting restarted. Renewable energy operators are planning more than a dozen new large-scale wind and solar generation projects while at least six new large-scale long-duration energy projects are in development. And companies pioneering new, promising sources of clean energy—from offshore wind to hydrogen to clean steel to next-generation battery technologies — have announced dozens of new projects.

The clean energy announcements made since last August are also hitting nearly every part of the country, with 38 states and nearly 30 percent of congressional districts home to at least one announcement. The growth is particularly pronounced in Republican-led districts and states in the South.

States	Projects	Est. Jobs	Est. Investment
38	210	74,181	\$86,320,800,000

^{* 54} of the 208 announcements did not include investment estimates and 68 did not include job estimates.

HIGHLIGHTS

- Electric vehicle and battery manufacturing accounted for more than half of all new projects, with 115 battery and EV factories or expansions announced.
- Renewable energy companies announced 44 solar panel and equipment factories and major solar projects, and at least 18 wind turbine factories or major wind products.

- Red states and Republican congressional districts are benefitting the most from the IRA. More than half of all
 projects were in Republican districts, and 18 of the top 20 congressional districts for clean energy investments
 are held by Republicans. About 72 percent of all jobs and 86 percent of investments announced were in
 Republican districts.
- About 28 percent of congressional districts are home to at least one announced project.
- The top congressional districts for clean energy investments are North Carolina's 9th district with nearly \$9.6 billion, represented by Republican Rep. Richard Hudson, Georgia's 11th congressional district with \$6.6 billion, represented by Republican Rep. Barry Loudermilk, and Nevada's 2nd congressional district with \$6.6 billion, represented by Republican Rep. Mark Amodei.
- The top congressional districts that would see the largest clean energy employment growth from new clean energy projects are Georgia's 11th district with 5,660 estimated jobs, represented by Republican Rep. Barry Loudermilk, Nevada's 2nd congressional district with 5,050 jobs, represented by Republican Rep. Mark Amodei, and South Carolina's 2nd congressional district with 4,600 jobs, represented by Republican Rep. Joe Wilson.
- The top congressional districts that are home to the most projects announced are Ohio's 9th congressional district with 6 projects, represented by Democratic Rep. Marcy Kaptur, and Georgia's 1st congressional district with 5 projects, represented by Republican Rep. Earl Carter. Six other districts are home to four announced projects.
- Foreign companies led or were involved with nearly 100 announced projects. U.S.-based companies led or were involved with 118 announced projects.
- South Korean companies announced the most projects more than two dozen. Companies based in Michigan, California, and North Carolina led announcements from domestic-based companies.
- Manufacturing accounted for 171 projects, 91 percent of investments and 95 percent of jobs announced.
- Seven states are home to 10 or more projects, including Georgia, South Carolina, Michigan, Ohio, Tennessee,
 Texas, and New York. A total of 31 states are home to at least 2 projects.

METHODOLOGY

The data used in this report is limited to information made publicly available by the companies announcing projects and may not be comprehensive of all major projects that began development after August 16, 2022, nor be exclusive of projects that did not publicly disclose specific plans prior to the passage of the IRA. Projects that began development, were proposed, or applied for local and state approval before the passage of the Inflation Reduction Act (IRA) are not included. This analysis also does not include federal investments in which the federal government has provided financial resources for the complete project, lease sales, projects in which an announcement was made but lacked specific geographic information, etc. Details on projects came from news reports on new and related projects, press releases from companies announcing new developments, and government announcements. 156 of the 210 announcements include investment data and 142 of the 210 announcements include job estimates, making this information very conservative. Some announcements did not include specific locations that could be used to identify congressional district information. For the latest full list of clean energy job announcements tracked by E2, visit https://e2.org/announcements.

MORE INFORMATION

Tables detailing the 210 clean energy announcements made since August 16, 2022 are below.

- Appendix I: projects announced by state
- Appendix II: <u>projects announced by sector</u>
- Appendix III: projects announced by industry type
- Appendix IV: projects announced by congressional district
- Appendix V: projects announced by country/state of origin
- Appendix VI: projects announced by date announced

An updated list and map of the clean energy announcements a tracked by E2 can be found at https://e2.org/announcements.

APPENDIX I: projects by state

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State	Projects	Est. Investments	Est. Jobs
GA	19	\$12.3 Billion	12,791
SC	18	\$10.9 Billion	10,272
MI	18	\$9.1 Billion	10,090
ОН	13	\$6.4 Billion	3,839
TN	13	\$5.2 Billion	4,110
TX	13	\$5.2 Billion	4,193
NY	10	\$783 Million	2,739
NC	9	\$9.9 Billion	3,656
AZ	8	\$5.9 Billion	2,280
CA	8	\$1.5 Billion	N/A
СО	7	\$880 Million	2,382
NV	6	\$6.6 Billion	5,250
IN	6	\$2.4 Billion	1,182
MA	6	\$46 Million	1,041
KY	5	\$581 Million	1,069
OK	4	\$2.5 Billion	1,400
AL	4	\$1.5 Billion	1,300
WI	4	\$220 Million	100
СТ	4	\$25 Million	100

State	Projects	Est. Investments	Est. Jobs
MN	3	\$145 Million	570
LA	4	\$1.2 Billion	983
IL	3	\$54 Million	110
IA	2	N/A	N/A
WV	2	\$1.3 Billion	750
AR	2	\$250 Million	500
PA	2	\$116 Million	157
MS	2	\$115 Million	340
NM	3	\$1.1 Billion	2,105
FL	2	\$72 Million	250
VA	2	\$37 Million	15
MO	1	\$100 Million	250
NH	1	\$16 Million	N/A
MD	1	\$14 Million	145
ME	1	\$6 Million	200
VT	1	N/A	12
KS	1	N/A	N/A
OR	1	N/A	N/A
UT	1	N/A	N/A

APPENDIX II: projects by sector

Sector	Projects	Est. Jobs	Est. Investments
Electric Vehicles	97	45,911	\$56.1 Billion
Solar	44	15,084	\$9.9 Billion
Battery/Storage	35	8,028	\$12.4 Billion
Wind	18	2,543	\$1.7 Billion
Hydrogen	12	2,434	\$5.1 Billion
Grid/Electrification	12	905	\$1.5 Billion
Biofuels	1	40	N/A
Energy Efficiency	1	200	\$6 Million
Geothermal	1	N/A	N/A

^{*}some projects were categorized under multiple sectors

APPENDIX III: projects by industry type

Industry Type	Projects	Est. Jobs	Est. Investments
Manufacturing	171	70,334	\$78.2 Billion
Generation	30	3,727	\$7.6 Billion
R&D	7	120	\$430 Million
Recycling	2	N/A	\$6 Million

APPENDIX IV: projects by congressional district

Party	Projects	Est. Jobs	Est. Investments
Republican	121	53,656	\$73.8 Billion
Democratic	68	15,550	\$9.6 Billion
Unknown	21	3,111	\$982 thousand

District	Rep	Party	Projects	Est. Jobs	Est. Investments
NC-9	Richard Hudson	R	3	2,150	\$9,600,000,000
GA-11	Barry Loudermilk	R	3	5,660	\$6,647,000,000
NV-2	Mark E. Amodei	R	4	5,050	\$6,600,000,000
AZ-5	Andy Biggs	R	2	N/A	\$4,100,000,000
TX-13	Ronny Jackson	R	2	1,690	\$4,075,000,000
MI-5	Tim Walberg	R	1	2,500	\$3,500,000,000
OH-15	Mike Carey	R	1	2,200	\$3,500,000,000
SC-1	Nancy Mace	R	1	1,500	\$3,500,000,000
TN-7	Mark E. Green	R	3	1,011	\$3,280,200,000
GA-3	Drew Ferguson	R	2	923	\$2,770,000,000
OK-2	Josh Brecheen	R	3	900	\$2,450,000,000
MI-2	John R. Moolenaar	R	1	2,300	\$2,360,000,000
SC-2	Joe Wilson	R	4	4,600	\$2,094,000,000
SC-5	Ralph Norman	R	3	1,005	\$1,808,900,000
SC-4	William R. Timmons	R	3	450	\$1,705,000,000
MI-6	Debbie Dingell	D	2	2,112	\$1,650,000,000
AZ-7	Raul M. Grijalva	D	3	1,750	\$1,601,000,000
CA-3	Kevin Kiley	R	1	N/A	\$1,500,000,000
IN-8	Larry Bucshon	R	1	642	\$1,500,000,000
GA-1	Earl Carter	R	5	3,562	\$1,441,000,000
AL-5	Dale Strong	R	3	900	\$1,274,000,000
OH-9	Marcy Kaptur	D	6	150	\$1,153,000,000
LA-3	Clay Higgins	R	1	700	\$1,100,000,000
NM-1	Melanie Stansbury	D	1	1,800	\$1,000,000,000
SC-6	James E. Clyburn	D	4	1,425	\$872,000,000
SC-7	Russell Fry	R	1	1,170	\$810,000,000
GA-2	Sanford D. Bishop	D	1	400	\$800,000,000
OH-12	Troy Balderson	R	2	1,150	\$800,000,000
WV-2	Alexander X. Mooney	R	1	750	\$760,000,000
IN-5	Victoria Spartz	R	3	340	\$721,000,000
TX-35	Greg Casar	D	1	N/A	\$717,000,000
GA-12	Rick W. Allen	R	4	1,376	\$580,000,000
WV-1	Carol D. Miller	R	1	N/A	\$500,000,000

CO-8	Yadira Caraveo	D	3	1,232	\$440,000,000
MI-9	Lisa McClain	R	2	920	\$426,000,000
TN-8	David Kustoff	R	4	1,470	\$402,500,000
CO-5	Doug Lamborn	R	1	350	\$400,000,000
NY-24	Claudia Tenney	R	1	19	\$387,000,000
MI-8	Daniel T. Kildee	D	1	170	\$375,000,000
TN-5	Andy Ogles	R	2	650	\$275,000,000
KY-4	Thomas Massie	R	1	450	\$264,000,000
AR-4	Bruce Westerman	R	1	100	\$250,000,000
TN-4	Scott DesJarlais	R	2	250	\$250,000,000
TX-5	Lance Gooden	R	1	1,500	\$250,000,000
NY-14	Alexandria Ocasio- Cortez	D	1	N/A	\$215,000,000
AL-7	Terri Sewell	D	1	400	\$205,000,000
AZ-9	Paul A. Gosar	R	1	360	\$200,000,000
WI-6	Glenn Grothman	R	1	N/A	\$200,000,000
TN-2	Tim Burchett	R	1	600	\$170,000,000
KY-6	Andy Barr	R	1	167	\$153,000,000
SC-3	Jeff Duncan	R	2	122	\$131,000,000
IN-4	James R. Baird	R	1	200	\$115,000,000
MS-4	Mike Ezell	R	1	300	\$115,000,000
KY-1	James Comer	R	1	141	\$104,000,000
MI-11	Haley M. Stevens	D	2	500	\$100,000,000
MI-10	John James	R	2	155	\$96,000,000
NM-2	Gabe Vasquez	D	2	305	\$95,000,000
PA-16	Mike Kelly	R	1	130	\$93,600,000
NC-4	Valerie Foushee	D	2	801	\$81,200,000
LA-5	Julia Letlow	R	1	100	\$75,000,000
NY-23	Nick Langworthy	R	1	250	\$75,000,000
GA-10	Mike Collins	R	1	160	\$72,000,000
KY-2	Steven Brett	R	2	311	\$60,000,000
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OH-4	Jim Jordan	R	4	12	\$57,000,000
NY-25	Joseph D. Morelle	D	2	1,270	\$56,000,000
IL-12	Mike Bost	R	1	60	\$54,000,000
FL-4	Aaron Bean	R	1	250	\$52,000,000
NY-20	Paul Tonko	D	1	200	\$50,000,000
IN-9	Erin Houchin	R	1	N/A	\$45,000,000
MA-3	Lori Trahan	D	2	166	\$45,000,000
VA-5	Robert Good	R	1	N/A	\$37,000,000
LA-4	Mike Johnson	R	1	153	\$28,500,000

CT-3	Rosa L. DeLauro	D	1	N/A	\$24,800,000
PA-15	Glenn Thompson	R	1	27	\$22,500,000
FL-1	Matt Gaetz	R	1	N/A	\$20,000,000
WI-4	Gwen Moore	D	1	100	\$20,000,000
GA-6	Rich McCormick	R	1	200	\$19,000,000
NC-14	Jeff Jackson	D	2	300	\$18,300,000
NH-1	Christopher Pappas	D	1	N/A	\$16,300,000
MI-7	Elissa Slotkin	D	1	N/A	\$16,000,000
MD-7	Kweisi Mfume	D	1	145	\$14,000,000
LA-2	Troy Carter	D	1	30	\$10,000,000
ME-2	Jared Golden	D	1	200	\$6,000,000
ΓN-9	Stephen I. Cohen	D	1	129	\$6,000,000
NC-12	Alma S. Adams	D	1	205	\$4,200,000
MA-2	James P. McGovern	D	1	N/A	\$700,000
AR-1	Rick Crawford	R	1	400	N/A
AZ-6	Juan Ciscomani	R	2	170	N/A
CA-14	Eric Swalwell	D	1	N/A	N/A
CA-2	Jared Huffman	D	1	N/A	N/A
CA-27	Mike Garcia	R	1	N/A	N/A
CA-35	Norma J. Torres	D	1	N/A	N/A
CA-47	Katie Porter	D	1	N/A	N/A
CA-6	Ami Bera	D	1	N/A	N/A
CA-8	John Garamendi	D	1	N/A	N/A
CO-3	Lauren Boebert	R	1	N/A	N/A
CT-2	Joseph Courtney	D	1	N/A	N/A
CT-5	Jahana Hayes	D	1	100	N/A
GA-14	Marjorie Greene	R	1	510	N/A
A-1	Mariannette Miller- Meeks	R	1	N/A	N/A
IA-2	Ashley Hinson	R	1	N/A	N/A
L-7	Danny K. Davis	D	1	N/A	N/A
L-8	Raja Krishnamoorthi	D	1	50	N/A
KS-1	Tracey Mann	R	1	N/A	N/A
MA-6	Seth Moulton	D	1	800	N/A
MI-1	Jack Bergman	R	2	N/A	N/A
VII-12	Rashida Tlaib	D	1	N/A	N/A
MN-5	Ilhan Omar	D	1	100	N/A
MN-6	Tom Emmer	R	1	N/A	N/A
MS-1	Trent Kelly	R	1	40	N/A
NV-4	Steven Horsford	D	1	N/A	N/A

NY-19	Marcus Molinaro	R	1	500	N/A	
NY-26	Brian Higgins	D	1	500	N/A	
NY-5	Gregory W. Meeks	D	1	N/A	N/A	
NY-6	Grace Meng	D	1	N/A	N/A	
OR-2	Cliff Bentz	R	1	N/A	N/A	
TX-26	Michael C. Burgess	R	1	100	N/A	
TX-28	Henry Cuellar	D	1	N/A	N/A	
TX-32	Colin Z. Allred	D	1	183	N/A	
VA-3	Bobby Scott	D	1	15	N/A	
VT-1	Becca Balint	D	1	12	N/A	
WI-1	Bryan Steil	R	1	N/A	N/A	
WI-8	Mike Gallagher	R	1	N/A	N/A	

APPENDIX V: projects announced by country/state of origin

Developer Country of Origin	Projects	Est. Jobs	Est. Investments
U.S.	113	31,426	\$41,745,200,000
U.S. & Foreign	6	3,829	\$4,491,000,000
Foreign	91	38,926	\$40,084,600,000

By State/Nation	Projects	Est. Jobs	Est. Investments
F-South Korea	25	13,515	\$16,599,700,000
Michigan	20	6,309	\$7,138,100,000
California	17	6,509	\$3,930,900,000
F-Canada	12	6,965	\$1,957,000,000
F-Japan	11	3,047	\$9,561,000,000
Massachusetts	11	1,496	\$1,180,700,000
North Carolina	11	3,705	\$7,288,200,000
F-Germany	10	4,800	\$5,460,000,000
Texas	10	4,275	\$4,835,000,000
Arizona	8	2,550	\$4,296,000,000
F-China	6	4,670	\$4,266,000,000
New York	6	519	\$407,000,000
Illinois	5	1500	\$800,000,000
F-Italy	4	1,227	\$1,040,800,000
F-Norway	4	500	\$669,800,000
F-Switzerland	4	405	\$444,000,000
Nevada	4	3,550	\$6,600,000,000
F-Denmark	3	945	\$54,000,000
F-India	3	1,100	\$250,000,000
Florida	3	N/A	N/A
F-Netherlands	3	290	\$155,000,000
F-Mexico	2	283	\$122,100,000
Georgia	2	771	\$421,000,000

Indiana	2	140	N/A
Louisiana	2	430	\$10,000,000
Ohio	2	412	\$332,000,000
Wisconsin	2	N/A	\$200,000,000
Arkansas	1	100	\$250,000,000
Colorado	1	N/A	N/A
Connecticut	1	100	N/A
F-Australia	1	250	N/A
F-England	1	30	\$10,000,000
F-Finland	1	601	\$41,200,000
F-Israel	1	N/A	N/A
F-Luxembourg	1	723	\$2,570,000,000
F-Portugal	1	129	\$6,000,000
F-Scotland	1	N/A	\$70,000,000
F-Singapore	1	1,800	\$1,000,000,000
F-Spain	1	100	\$20,000,000
F-Turkey	1	575	\$279,000,000
Iowa	1	N/A	N/A
Maine	1	200	\$6,000,000
Missouri	1	250	\$100,000,000
Nebraska	1	N/A	\$500,000,000
New Hampshire	1	N/A	\$16,300,000
New Jersey	1	N/A	N/A
Oregon	1	642	\$1,500,000,000
Pennsylvania	1	1,615	\$4,000,000,000
Vermont	1	12	N/A
Virginia	1	0	\$1,450,000,000

APPENDIX VI | projects by date announced

Date	Developer	State	Source	Sector	Туре	Est. Jobs	Est. Investment
8/25/22	Factorial Energy	MA	<u>Link</u>	EV	Manufacturing	166	\$45 Million
8/25/22	Advanced Nano Projects	KY	<u>Link</u>	EV	Manufacturing	93	\$50 Million
8/30/22	First Solar	ОН	<u>Link</u>	Solar	Manufacturing		\$185 Million (total)
8/30/22	First Solar	ОН	<u>Link</u>	Solar	Manufacturing		\$185 Million (total)
8/31/22	Toyota	NC	<u>Link</u>	EV	Manufacturing	350	\$2.5 Billion
9/2/22	Zinc8 Energy Solutions Inc	NY	<u>Link</u>	Battery/Storage	Manufacturing	500	
9/7/22	Hemlock Semiconducter	MI	<u>Link</u>	Grid/Electrification	Manufacturing	170	\$375 Million
9/9/22	Wolfspeed	NC	<u>Link</u>	EV	Manufacturing	1,800	\$5 Billion

9/13/22	Berkshire	WV	<u>Link</u>	Grid/Electrification	Manufacturing		\$500 Million
0/10/00	Hathaway Energy						
9/13/22	SPI Energy	CA	<u>Link</u>	Solar	Manufacturing		
9/14/22	ABB E-Mobility	SC	<u>Link</u>	EV	Manufacturing		\$4 Million
9/15/22	General Motors	IN	<u>Link</u>	EV	Manufacturing		\$491 Million
9/21/22	Seg Solar	TX	<u>Link</u>	Solar	Manufacturing	500	\$60 Million
9/21/22	Aspen Aerogels	MA	<u>Link</u>	EV	R&D	75	
9/23/22	General Motors	ОН	<u>Link</u>	EV	Manufacturing		\$760 Million
9/27/22	Daejin Advanced Manufacturing USA Inc.	TN	<u>Link</u>	EV	Manufacturing	83	\$10 Million
9/28/22	Cirba Solutions	ΑZ	<u>Link</u>	Battery/Storage	Manufacturing	110	
10/3/22	Electrovaya	NY	<u>Link</u>	Battery/Storage	Manufacturing	250	\$75 Million
10/4/22	Entergy	AR	<u>Link</u>	Solar	Generation	400	
10/5/22	Our Next Energy	MI	<u>Link</u>	EV	Manufacturing	2,112	\$1.6 Billion
10/6/22	Gotion	MI	<u>Link</u>	EV	Manufacturing	2,300	\$2.4 Billion
10/6/22	Crowley Wind Services	MA	<u>Link</u>	Wind	Manufacturing	800	
10/11/22	Honda, LG Energy Solutions	ОН	<u>Link</u>	EV	Manufacturing	2,200	\$3.5 Billion
10/11/22	Honda	ОН	<u>Link</u>	EV	Manufacturing	327 (total)	\$700 Million (total)
10/11/22	Honda	OH	<u>Link</u>	EV	Manufacturing	327 (total)	\$700 Million (total)
10/11/22	Honda	OH	<u>Link</u>	EV	Manufacturing	327 (total)	\$700 Million (total)
10/11/22	Cummins Inc	MN	<u>Link</u>	Hydrogen	Manufacturing	100	
10/12/22	Hitachi	VA	<u>Link</u>	Grid/Electrification	Manufacturing		\$37 Million
10/12/22	FirstLight Power	CT	<u>Link</u>	Battery/Storage	Generation		
10/19/22	BMW	SC	<u>Link</u>	EV	Manufacturing	300	\$700 Million
10/19/22	BMW	SC	<u>Link</u>	EV	Manufacturing		\$1 Billion
10/25/22	Magna	MI	<u>Link</u>	EV	Manufacturing	155	\$96 Million
10/25/22	Bosch	SC	<u>Link</u>	EV	Manufacturing	350	\$260 Million
10/25/22	Magna	MI	<u>Link</u>	EV	Manufacturing	920	\$426 Million
10/25/22	Mission Solar	TX	<u>Link</u>	Solar	Manufacturing		
10/27/22	Hyundai	AL	<u>Link</u>	EV	Manufacturing	400	\$205 Millionq
10/28/22	Crowley Wind Services	CA	<u>Link</u>	Wind	Manufacturing		
11/2/22	EPC Power	SC	<u>Link</u>	Battery/Storage	Manufacturing	150	\$5 Million
11/2/22	Steel Dynamics	MS	Link	Biofuels	Generation	40	
11/2/22	Canoo	OK	Link	EV	Manufacturing		
11/3/22	Ecoplexus	SC	Link	Solar	Generation		\$89 Million
11/3/22	Viridi Parente	NY	Link	Battery/Storage	Manufacturing	500	
11/3/22	TPI Composites,	IA	Link	Wind	Manufacturing		

11/7/22	Heliogen	CA	Link	Hydrogen	Generation		
11/9/22	Unitil	NH	Link	Solar	Generation		\$16 Million
11/9/22	Sunlight Batteries USA	NC	Link	Battery/Storage	Manufacturing	200	\$40 Million
11/9/22	Joon Georgia, Inc	GA	Link	EV	Manufacturing	630	\$317 Million
11/9/22	Canoo	OK	Link	EV	Manufacturing	500	
11/14/22	Freyr Battery	GA	Link	Battery/Storage	Manufacturing	723	\$2.6 Billion
11/15/22	SK Signet	TX	Link	EV	Manufacturing	183	
11/16/22	First Solar	AL	Link	Solar	Manufacturing	700	\$1.1 Billion
11/19/22	General Motors	IN	Link	EV	Manufacturing		\$45 Million
11/21/22	LG Chem	TN	Link	EV	Manufacturing	860	\$3.2 Billion
11/21/22	ELM	TX	Link	Grid/Electrification	Manufacturing	100	
11/23/22	Hyundai	GA	Link	EV	Manufacturing	1,500	\$926 Million
12/1/22	Redwood Materials	NV	Link	Battery/Storage	Manufacturing	450	\$1.1 Billion
12/2/22	Ultium Cells	TN	<u>Link</u>	EV	Manufacturing	400	\$275 Million
12/6/22	Envision	SC	<u>Link</u>	EV	Manufacturing	1,170	\$810 Million
12/6/22	American Battery Factory	AZ	<u>Link</u>	Battery/Storage	Manufacturing	1,000	\$1.2 Billion
12/7/22	Evercharge	CA	<u>Link</u>	EV	Manufacturing		
12/8/22	Kontrolmatik Technologies	SC	<u>Link</u>	EV	Manufacturing	575	\$279 Million
12/8/22	Sion Power	ΑZ	Link	EV	Manufacturing	150	\$341 Million
12/8/22	Air Products & AES	TX	<u>Link</u>	Hydrogen	Generation	1,615	\$4 Billion
12/8/22	Hyundai & SK On	GA	<u>Link</u>	EV	Manufacturing	3,500	\$4 Billion
12/12/22	Stellantis	MI	<u>Link</u>	Solar	Generation	10	
12/13/22	Soulbrain MI	IN	<u>Link</u>	EV	Manufacturing	75	\$75 Million
12/13/22	Lear Corp	MI	<u>Link</u>	EV	Manufacturing	500 (total)	\$112.5 Million (total)
12/13/22	Lear Corp	MI	<u>Link</u>	EV	Manufacturing	500 (total)	\$112.5 Million (total)
12/13/22	Lear Corp	MI	<u>Link</u>	EV	Manufacturing	500 (total)	\$112.5 Million (total)
12/13/22	NanoGraf	IL	<u>Link</u>	Battery/Storage	Generation		
12/14/22	Albemarle Corporation	NC	<u>Link</u>	Battery/Storage	Manufacturing	200	\$200 Million
12/14/22	Redwood Materials	SC	<u>Link</u>	EV	Manufacturing	1,500	\$3.5 Billion
12/14/22	Chevron	NV	<u>Link</u>	Geothermal	Generation		
12/14/22	Siemens	TX	<u>Link</u>	EV	Manufacturing	100	
12/15/22	Cirba Solutions	ОН	Link	EV	Manufacturing	150	\$200 Million
12/17/22	Autokinition	ОН	<u>Link</u>	EV	Manufacturing	150	\$15 Million
12/28/22	Form Energy	WV	<u>Link</u>	Battery/Storage	Generation	750	\$760 Million
12/29/22	EVE Energy North America	ОН	<u>Link</u>	Battery/Storage	Manufacturing	12	\$57 Million

1/5/23	Ecoplastics Corporation	GA	<u>Link</u>	EV	Manufacturing	456	\$205 Million
1/9/23	Revel	NY	Link	Grid/Electrification	Generation		
1/9/23	Raven SR	CA	Link	Hydrogen	Generation		
1/10/23	StoreDot	CA	Link	EV	Manufacturing		
1/11/23	JA Solar	ΑZ	Link	Solar	Manufacturing	600	\$60 Million
1/11/23	Tesla	TX	Link	EV	Manufacturing		\$717 Million
1/11/23	QCells	GA	Link	Solar	Manufacturing	2,000	\$2.5 Billion
1/11/23	QCells	GA	Link	Solar	Manufacturing	510	
1/12/23	Regen Fiber	IA	Link	Wind	Recycling		
1/18/23	Aqua Metals	NV	<u>Link</u>	Battery/Storage	Manufacturing		
1/18/23	Fincantieri Bay Shipbuilding	WI	<u>Link</u>	Wind	Manufacturing		
1/18/23	Quench Chargers	CT	<u>Link</u>	EV	Manufacturing		
1/21/23	GM	ОН	<u>Link</u>	EV	Manufacturing		\$8 Million
1/21/23	GM	NY	<u>Link</u>	EV	Manufacturing		\$56 Million
1/23/23	Nissan	TN	<u>Link</u>	EV	Manufacturing		\$250 Million
1/24/23	Tesla	NV	<u>Link</u>	EV	Manufacturing	3,000	\$3.5 Billion
1/26/23	SK Battery	GA	<u>Link</u>	Battery/Storage	Manufacturing	200	\$19 Million
	America						
1/26/23	Cabot	TX	<u>Link</u>	EV	Manufacturing	75	\$75 Million
	Corporation						
1/26/23	Liochem	KY	<u>Link</u>	EV	Manufacturing	141	\$104 Million
1/26/23	JFK Airport	NY	<u>Link</u>	Solar	Generation		
1/31/23	Form Energy	СО	<u>Link</u>	Battery/Storage	Generation		
1/31/23	Form Energy	MN	<u>Link</u>	Battery/Storage	Generation		
2/1/23	Seoyon E-HWA	GA	<u>Link</u>	EV	Manufacturing	740	\$76 Million
2/1/23	Alliant Energy	WI	<u>Link</u>	Battery/Storage	Generation		\$200 Million
2/7/23	Kempower	NC	<u>Link</u>	EV	Manufacturing	601	\$41 Million
2/9/23	Pallidus	SC	<u>Link</u>	Battery/Storage	Manufacturing	405	\$443 Million
2/9/23	Redwood Materials	NV	<u>Link</u>	EV	Manufacturing	1,600	\$2 Billion
2/13/23	Ford & Contemporary Amperex Technology	MI	<u>Link</u>	EV	Manufacturing	2,500	\$3.5 Billion
2/15/23	Tritium	TN	Link	EV	Manufacturing	250	
2/20/23	May Renewables LLC	SC	Link	Solar	Generation		\$70 Million
2/21/23	Sewon America	GA	Link	EV	Manufacturing	740	\$300 Million
_,,					Generation		
	Duke Energy	NC	Link	Grid/Electrification	Generation		
2/21/23	Duke Energy Nucor	NC AL	<u>Link</u> Link	Grid/Electrification Grid/Electrification		200	\$125 Million
2/21/23 2/22/23 2/22/23	Duke Energy Nucor Mott Corp	NC AL CT	Link Link Link	Grid/Electrification Hydrogen	Manufacturing Manufacturing	200 100	\$125 Million

2/23/23	Pine Gate Renewal	MS	<u>Link</u>	Solar	Generation	300	\$115 Million
2/26/23	Li-Cycle	NY	Link	Battery/Storage	Manufacturing	1,270	
2/27/23	Dongwha Elecrolyte USA	TN	Link	Battery/Storage	Manufacturing	68	\$70 Million
2/28/23	Nyle Systems	ME	Link	Energy Efficiency	Manufacturing	200	\$6 Million
2/28/23	Nel ASA	CT	Link	Hydrogen	Manufacturing		\$25 Million
2/28/23	Stellantis	IN	Link	EV	Manufacturing	265	\$155 Million
3/1/23	EvolOH	MA	<u>Link</u>	Hydrogen	Manufacturing		
3/2/23	Green Giant Energy	TX	<u>Link</u>	Battery/Storage	Recycling		\$6 Million
3/2/23	GE Vernova	FL	<u>Link</u>	Wind	Manufacturing		\$20 Million
3/3/23	Equinor Wind	NY	<u>Link</u>	Grid/Electrification	Generation		\$215 Million
3/3/23	Scout Motors	SC	<u>Link</u>	EV	Manufacturing	4,000	\$2 Billion
3/6/23	Amprius Technologies	СО	<u>Link</u>	Battery/Storage	Manufacturing	332	\$190 Million
3/7/23	PHA	GA	<u>Link</u>	EV	Manufacturing	402	\$67 Million
3/7/23	Apex Clean Energy	OK	<u>Link</u>	Wind	Generation		\$1.5 Billion
3/8/23	Shyft Group	MI	<u>Link</u>	EV	Manufacturing		\$16 Million
3/8/23	EVelution Energy	ΑZ	<u>Link</u>	EV	Manufacturing	360	\$200 Million
3/9/23	Illuminate USA & Invenergy	ОН	<u>Link</u>	Solar	Manufacturing	1,000	\$600 Million
3/9/23	Bullrock Renewables	VT	<u>Link</u>	Solar	Generation	12	
3/10/23	Siemens	KS	<u>Link</u>	Wind	Manufacturing		
3/12/23	Gulf Wind Technology & Shell	LA	<u>Link</u>	Wind	R&D	30	\$10 Million
3/13/23	Hounen Solar	SC	<u>Link</u>	Solar	Manufacturing	200	\$33 Million
3/14/23	Arcosa	NM	<u>Link</u>	Wind	Manufacturing	250	\$55 Million
3/16/23	HydrogenPro	TX	<u>Link</u>	Hydrogen	Manufacturing		\$30 Million
3/20/23	Entek	IN	<u>Link</u>	EV	Manufacturing	642	\$1.5 Billion
3/22/23	Hanwha Advanced Materials Georgia, Inc	GA	<u>Link</u>	Solar	Manufacturing	160	\$147 Million
3/22/23	Cirba Solutions	SC	Link	Battery/Storage	Manufacturing	300	\$300 Million
3/22/23	Albemarle Corporation	SC	Link	Battery/Storage	Manufacturing	300	\$1.3 Billion
3/23/23	LG Energy Solution	AZ	<u>Link</u>	EV	Manufacturing		\$1.8 Billion
3/23/23	Flender Corporation	IL	<u>Link</u>	Wind	Manufacturing	50	
3/24/23	EnerVenue	KY	<u>Link</u>	Battery/Storage	Manufacturing	450	\$264 Million

3/24/23	LG Energy	AZ	Link	Battery/Storage	Manufacturing		\$2.3 Billion
, ,	Solution			,, 0			·
3/30/23	ABB	NM	<u>Link</u>	Grid/Electrification	Manufacturing	55	\$40 Million
3/30/23	Magna	MI	<u>Link</u>	EV	Manufacturing	500	\$100 Million
4/4/23	BorgWarner	MI	<u>Link</u>	EV	Manufacturing	186	\$21 Million
4/5/23	Toyota	AL	<u>Link</u>	Solar	Generation		\$49 Million
4/6/23	UCore North America	LA	<u>Link</u>	EV	Manufacturing	100	\$75 Million
4/11/23	Seohan Auto	GA	<u>Link</u>	EV	Manufacturing	180	\$72 Million
4/12/23	NewCo. Manufacturing	МО	<u>Link</u>	Solar	Manufacturing	250	\$100 Million
4/12/23	Rayzon Solar	GA	<u>Link</u>	Solar	Manufacturing		
4/18/23	6k Energy	TN	<u>Link</u>	Battery/Storage	Manufacturing	230	\$250 Million
4/19/23	BorgWarner	SC	<u>Link</u>	Battery/Storage	Manufacturing	122	\$42 Million
4/21/23	Orsted	MD	<u>Link</u>	Wind	Manufacturing	145	\$14 Million
4/21/23	Jinko Solar	FL	<u>Link</u>	Solar	Manufacturing	250	\$52 Million
4/25/23	Alliant Energy	WI	<u>Link</u>	Solar	Generation		
4/26/23	Prysmian Group	PA	<u>Link</u>	Grid/Electrification	Manufacturing	27	\$23 Million
4/26/23	Prolec GE USA	LA	<u>Link</u>	Grid/Electrification	Manufacturing	153	\$29 Million
4/26/23	SEM Wafertech & Solar4America	SC	<u>Link</u>	Solar	Manufacturing	300	\$66 Million
4/26/23	Vitro	PA	<u>Link</u>	Solar	Manufacturing	130	\$94 Million
4/26/23	Bosch	CA	<u>Link</u>	EV	Manufacturing		\$1.5 Billion
4/27/23	Rivian	KY	<u>Link</u>	EV	Manufacturing	218	\$10 Million
5/3/23	Nel Hydrogen	MI	<u>Link</u>	Hydrogen	Generation	500	\$400 Million
5/4/23	Electric Hydrogen Co	MA	<u>Link</u>	Hydrogen	Manufacturing		
5/9/23	Atom Power	NC	<u>Link</u>	EV	Manufacturing	205	\$4 Million
5/9/23	Ingeteam	WI	<u>Link</u>	EV	Manufacturing	100	\$20 Million
5/15/23	Syntex Industries	AR	<u>Link</u>	Hydrogen	Generation	100	\$250 Million
5/18/23	Nextracker, MSS Steel Tubes USA	TN	<u>Link</u>	Solar	Manufacturing	129	\$6 Million
5/18/23	Anovion Technologies	GA	<u>Link</u>	Battery/Storage	Manufacturing	400	\$800 Million
5/22/23	Enel	OK	<u>Link</u>	Solar	Manufacturing	900	\$1 Billion
5/23/23	alpitronic Americas LLC	NC	<u>Link</u>	EV	Manufacturing	300	\$18 Million
5/23/23	Hanon Systems	GA	<u>Link</u>	EV	Manufacturing	160	\$40 Million
5/23/23	GE Vernova	NY	<u>Link</u>	Wind	Manufacturing	200	\$50 Million
5/26/23	Plug Power	NY	<u>Link</u>	Hydrogen	Manufacturing	19	\$387 Million
5/31/23	Toyota	NC	<u>Link</u>	EV	Manufacturing		\$2.1 Billion
6/1/23	Manner Polymers	IL	Link	EV	Manufacturing	60	\$54 Million
6/7/23	Woory Industrial Co	GA	<u>Link</u>	EV	Manufacturing	130	\$18 Million

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6/8/23	Toyota	MI	<u>Link</u>	EV	R&D		\$50 Million
6/14/23	Nucor	IN	<u>Link</u>	Grid/Electrification	Manufacturing	200	\$115 Million
6/15/23	Canadian Solar	TX	<u>Link</u>	Solar	Manufacturing	1,500	\$250 Million
6/18/23	SolRiver Captial	OR	<u>Link</u>	Solar	Generation		
6/20/23	Holcim US	MI	<u>Link</u>	Solar	Generation		
6/22/23	VSK Energy	CO	<u>Link</u>	Solar	Manufacturing	900	\$250 Million
6/23/23	NVH Korea	GA	<u>Link</u>	EV	Manufacturing	160	\$72 Million
6/26/23	Enchem America	TN	<u>Link</u>	EV	Manufacturing	190	\$153 Million
	Inc						
6/26/23	Fugro	VA	<u>Link</u>	Wind	R&D	15	
7/5/23	Enphase & Flex	SC	<u>Link</u>	Solar	Manufacturing	600	\$20 Million
7/6/23	First Solar	ОН	<u>Link</u>	Solar	R&D		\$370 Million
7/11/23	Hitachi Astemo	KY	<u>Link</u>	EV	Manufacturing	167	\$153 Million
	Americas						
7/11/23	Cenntro Electric	CA	<u>Link</u>	EV	Manufacturing		
	Group						
7/11/23	Microvast	СО	<u>Link</u>	Battery/Storage	Manufacturing		
7/12/23	Kia	GA	<u>Link</u>	EV	Manufacturing	200	\$200 Million
7/18/23	Vestas	СО	<u>Link</u>	Wind	Manufacturing		\$40 Million (total)
7/18/23	Vestas	CO	<u>Link</u>	Wind	Manufacturing		\$40 Million (total)
7/20/23	Magna	TN	Link	EV	Manufacturing	250	\$790 Million
							(total)
7/20/23	Magna	TN	<u>Link</u>	EV	Manufacturing	300	\$790 Million
							(total)
7/20/23	Magna	TN	<u>Link</u>	EV	Manufacturing	750	\$790 Million
							(total)
7/21/23	Revkor,	UT	<u>Link</u>	Solar	R&D		
- / /	H2Gemini						
7/24/23	Heliene	MN	<u>Link</u>	Solar	Manufacturing	470	\$145 Million
7/25/23	Junchuang North	TX	<u>Link</u>	EV	Manufacturing	120	\$21 Million
	America						
7/25/23	Bollinger	MI	<u>Link</u>	EV	Manufacturing		\$44 Million (total)
7/25/23	Bollinger	MI	<u>Link</u>	EV	Manufacturing		\$44 Million (total)
7/26/23	Mass Megawatts	MA	<u>Link</u>	Solar	Generation		\$0.7 Million
7/28/23	Meyer Burger	CO	<u>Link</u>	Solar	Manufacturing	350	\$400 Million
8/2/23	Hanon Systems	TN	<u>Link</u>	EV	Manufacturing	600	\$170 Million
8/2/23	XCharge	TX	<u>Link</u>	EV	R&D		
8/7/23	Unimacts	NV	<u>Link</u>	Solar	Manufacturing	200	
8/10/23	Maxeon	NM	<u>Link</u>	Solar	Manufacturing	1,800	\$1 Billion
8/10/23	First Solar	LA	<u>Link</u>	Solar	Manufacturing	700	\$1.1 Billion

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