Clean Edge

Clean Energy Trends 2012 and *State Clean Energy Leadership Index*

May 2012

Ron Pernick

Founder & Managing Director

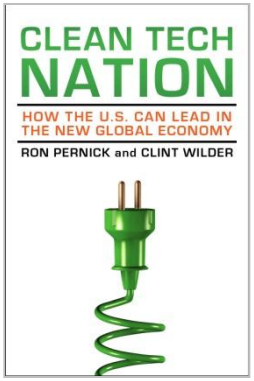
Clean Edge

More than a Decade of Clean Tech Research

Who: Research and advisory firm with staff of industry visionaries

When: Founded in 2000

What: Provides critical insight and intelligence to corporations, investors, governments, entrepreneurs, and other key stakeholders by delivering timely clean-tech data with expert analysis



Sponsored Publications

- *Clean Energy Trends*
- Custom reports
- Web site (7 million page views annually) and e-newsletter (approx. 30,000 subscribers)

Clean-Tech Investor Summit

- Winter, Palm Springs, 400+ attendees

Stock Indexes

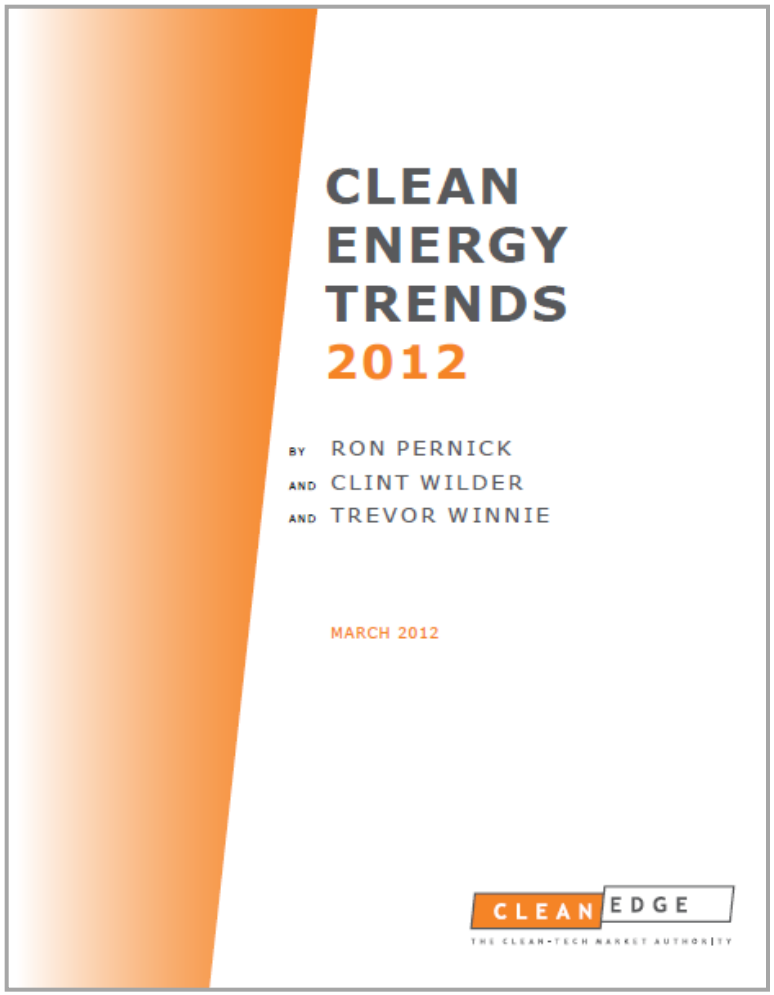
- NASDAQ OMX ® Clean Edge Indexes
  - U.S.-listed clean energy (CELS)
  - Global wind (QWND)
  - Global smart-grid infrastructure (QGRD)

Subscription and Advisory Services

- *State Clean Energy Leadership Index*
- *Custom Client Indexes and Consulting*

Clean Energy Trends 2012

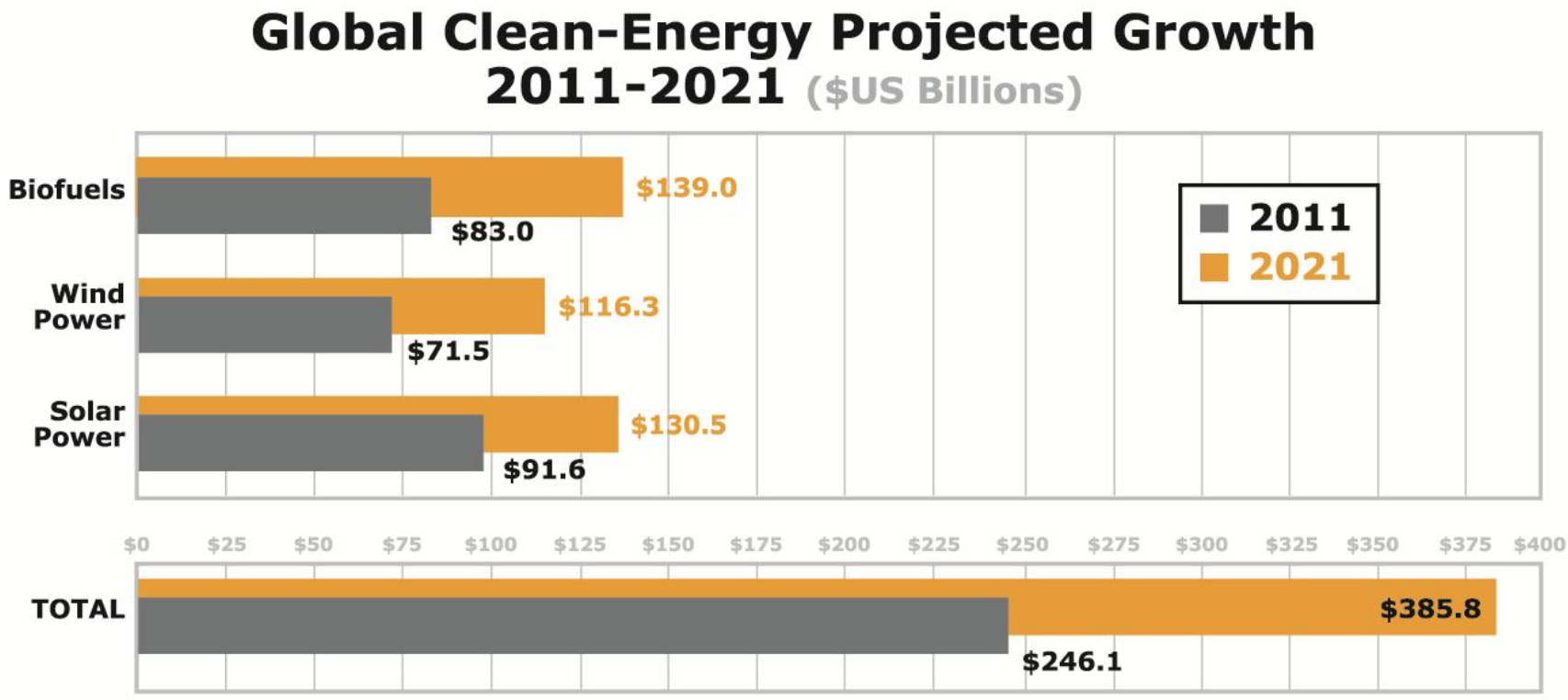
Released March, 2012



- 11th annual edition
- Detailed data, trends, and analysis covering U.S. and global markets in solar, wind, biofuels, and more
- Supported by leading organizations such as Deloitte, Autodesk, and Travelers
- Widely covered in the media
- Report downloaded more than 5000 times first week of release, with estimated readership of 20,000

Clean Energy

Current Market Size and 10-Year Projections



Source: Clean Edge, Inc., 2012

Clean Energy

More than 10 Years of Growth and Expansion

Global Clean-Energy Market Size 2000-2011

Year	Solar PV Global Market Size (in $Billions)	Wind Power Global Market Size (in $Billions)	Biofuels Global Market Size (in $Billions)
2000	$2.5	$4.0	N/A
2001	$3.0	$4.6	N/A
2002	$3.5	$5.5	N/A
2003	$4.7	$7.5	N/A
2004	$7.2	$8.0	N/A
2005	$11.2	$11.8	$15.7
2006	$15.6	$17.9	$20.5
2007	$20.3	$30.1	$25.4
2008	$29.6	$51.4	$34.8
2009	$36.1	$63.5	$44.9
2010	$71.2	$60.5	$56.4
2011	$91.6	$71.5	$83.0

Source: Clean Edge, Inc., 2012

Clean Energy Trends 2012

Solar Growth and Key Stats

- Solar PV (including modules, system components, and installation) increased from $71.2 billion in 2010 to $91.6 billion in 2011.
- Total market revenues were up 29 percent
- Installations climbed 69 percent from 15.6 GW in 2010 to more than 26 GW worldwide last year.
- Crystalline solar PV module prices dropped more than 40 percent between 2010 and 2011

Solar PV Prices

Rapidly Declining Installed PV Prices

Total Installed PV System Prices and Costs of Electricity (Global Average)

Year	System Price ($/W)	LCOE Range (cents/ kWh)
2007	$7.20	28 - 47
2008	$7.00	27 - 45
2009	$5.12	20 - 34
2010	$4.55	18 - 30
2011	$3.47	14 - 23
2012*	$2.69	11 - 19
2013*	$2.43	10 - 17
2014*	$2.19	9 - 15
2015*	$2.02	8 - 14
2016*	$1.87	7 - 14
2017*	$1.73	7 - 13
2018*	$1.60	6 - 12
2019*	$1.48	6 - 11
2020*	$1.37	6 - 10
2021*	$1.28	5 - 10

*Source: Clean Edge, Inc., 2012. 2007 through 2011 are actual figures and *2012 through 2021 are estimates. Figures calculated using Clean Edge cost projections and the NREL Levelized Cost of Energy (LCOE) Calculator. ASSUMPTIONS: Discount rate: 6%; Capacity factor: 16-26%; O&M cost: $6-$26/kW.*

Clean Energy Trends 2012

Wind Growth and Key Stats

- Wind power (new installation capital costs) totaled a record $71.5 billion in 2011, up 18 percent from $60.5 billion the prior year
- Global wind power installations equaled 41.6 GW in 2011, the largest year for global installations on record
- China remained the global leader for the fourth year in a row, installing more than 40 percent of all global wind capacity, or 18 GW total
- Followed by EU with 10 GW, U.S. with 7 GW, and India with 3 GW

Clean Energy Trends 2012

Biofuels Growth and Key Stats

- Biofuels (global production and wholesale pricing of ethanol and biodiesel) reached a record $83 billion in 2011, up from $56.4 billion the prior year
- Global sales remained relatively flat, increasing from 27.2 billion total gallons to just 27.9 billion gallons
- Bucking solar and wind's declining costs, biofuel prices were up around 20 percent
- This increase was mostly due to higher costs for feedstock commodities and rising costs for conventional gasoline and diesel

Clean Tech

Nearly a Quarter of U.S. Venture Investment

Clean-Tech Venture Capital Investments in U.S.-Based Companies as Percent of Total 2001-2011

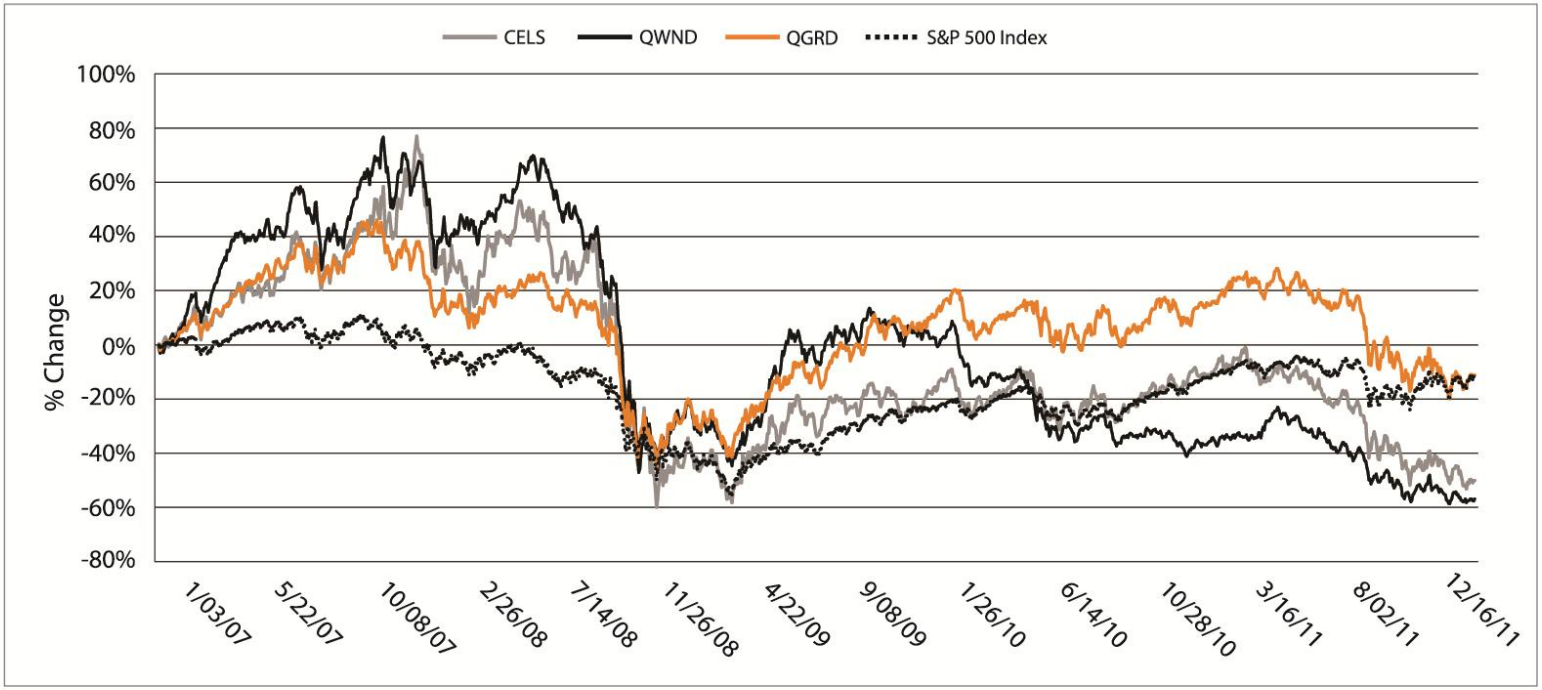
Year	Total Venture Investments ($Millions)	Clean-Tech Venture Investments ($Millions)	Clean-Tech Percentage of Venture Total
2001	$37,624	$458	1.2%
2002	$20,850	$660	3.2%
2003	$18,614	$713	3.8%
2004	$22,355	$844	3.8%
2005	$22,946	$1,337	5.8%
2006	$26,594	$2,814	10.6%
2007	$30,826	$3,909	12.7%
2008	$30,546	$6,861	22.5%
2009	$19,746	$3,814	19.3%
2010	$23,263	$5,062	21.8%
2011	$28,425	$6,576	23.1%

Source: Cleantech Group and PricewaterhouseCoopers/NVCA data with Clean Edge analysis, 2012. Clean-tech venture investment includes seed funding and follow-on rounds prior to private equity activity related to stake acquisitions or buyouts. Investment categories include agriculture, air & environment, energy efficiency, energy storage, materials, recycling & waste, smart grid, solar, transportation, water & wastewater, and wind.

Clean-Tech Stock Indexes

Volatile Performance

NASDAQ® Clean Edge® Stock Index Performance* (2007-2011)

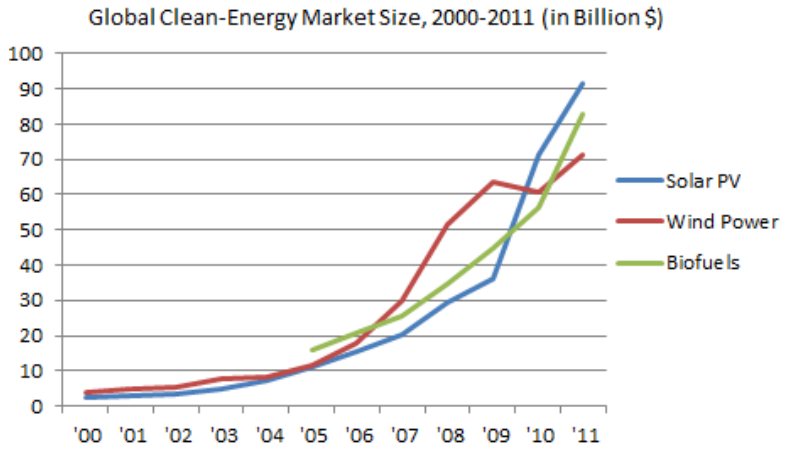


** Index data is provided by FactSet Research Systems and NASDAQ OMX. Index values for QGRD prior to inception (9/22/09) and for QWND prior to inception (6/26/08) are hypothetical and NASDAQ OMX and Clean Edge make no guarantee of their accuracy.*

Clean Energy Trends 2012

Major Themes

- Clean energy markets in 2011 will be remembered more for the Solyndra bankruptcy than market growth
- Extensive consolidation and M&A activity expected as lower prices put increasing pressure on companies and clean-energy markets mature
- Japan and Germany will play critical roles as they work to enable nuclear-free futures
- Low-cost natural gas in the U.S. poses both a unique challenge and opportunity for renewables
- Breakthroughs in finance, such as clean-energy MLPS, REITS, and green banks, may be just as important as tech innovation



Five Trends to Watch

1. The Few, The Proud, The Green: Military Leads Clean-Energy Deployment

2. Japan Moves Toward Cleaner Post-Nuclear Future

3. Deep Commercial Building Retrofits Reap Major Efficiency Savings

4. Waste-to-Resource Breakthroughs Attract Attention – and Investment

5. New Energy Storage Solutions Embolden the Grid

1. The Few, the Proud, the Green: Military Leads Clean-Energy Deployment

- DoD is the world's largest single consumer of energy, spending $15B/yr
- Every $1 increase in oil adds $30M to Navy's budget
- SolarStrong: 300 MW of solar PV on 120,000 military housing units – largest residential solar project in U.S. history
- Marines Experimental Forward Operating program –tests clean-energy and efficiency technologies for battlefield use
- The Air Force: mandated 50 percent biofuels use for domestic aviation
- 13.8 MW solar PV array underway at Naval Air Weapons Station China Lake

2. Japan Moves Toward Cleaner Post-Nuclear Future

- Before Fukushima disaster, Japan received 30% of its electricity from nuclear power, with plans to increase to 50% by 2030
- Now all but two of the nation's 54 nuclear generators remain shut down
- Outgoing Prime Minister Naoto Kan signed a 15-year FIT law to begin July 2012
- Corporates are making plays – MEMC aims to deploy 1,000 MW of PV
- Japan aggressively pursuing solar, wind (particularly offshore), and geothermal – Japan owns about 70 percent of the world market for geothermal generating equipment

3. Deep Commercial Building Retrofits Reap Major Efficiency Savings

- Efficiency measures remain cheapest source of power, averaging 3.5 cents/kWh saved in the U.S.
- Buildings are responsible for more than a third of worldwide energy use
- U.S. commercial building energy efficiency market was $5.6B in 2011 –expected to grow to $20B by 2020
- Weatherization and lighting upgrades provide quick energy savings, but real opportunity is "deep" retrofits, where savings are often 50% or more

4. Waste-to-Resource Breakthroughs Attract Attention – and Investment

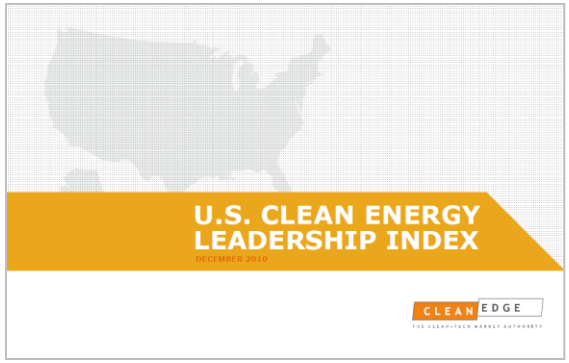
- Waste-to-resource isn't new, but early incinerators were anything but clean
- Municipal waste is 435M metric tons/yr in the U.S.; two-thirds or more of the developed world's garbage goes to landfills/incinerators
- Vast opportunity exists for innovation by multinationals and startups
- Common strategy is gasification of waste (converting garbage into syngas)
- Others are turning waste into biofuels or chemicals, improving benefits of composting via decomposition, and more

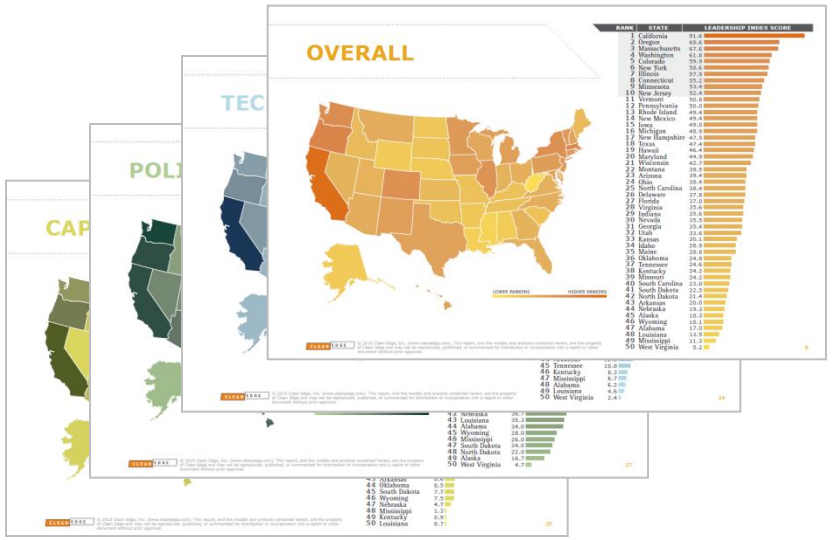
5. New Energy Storage Solutions Embolden the Grid

- High costs and risk-averse utilities have kept energy storage impact to a minimum
- Pumped hydro has dominated, equaling 99 percent of installed capacity
- On the utility side, pairing renewables with storage is growing (advanced batteries are adding peak discharge capacity)
- CSP offers potential to store solar as heat
- Creative distributed storage applications exist on the customer side as well (for example, stored ice for air conditioning)

State Clean Energy Leadership Index

Why Create the State Index?





- **The Action is with Cities and States**
  With limited progress at the federal level, states are playing the central role in driving market growth and activity.

- **Limited State-Level Analysis Available**
  Country-level analysis exists, but fails to consider the vast diversity of U.S. energy market.

- **Most Research is Quickly Dated**
  One-off reports become obsolete soon after they are published and don't enable ongoing tracking and analysis.

- **Disaggregated and Fragmented Data**
  Material is hidden in many locations and difficult to access and comprehend.

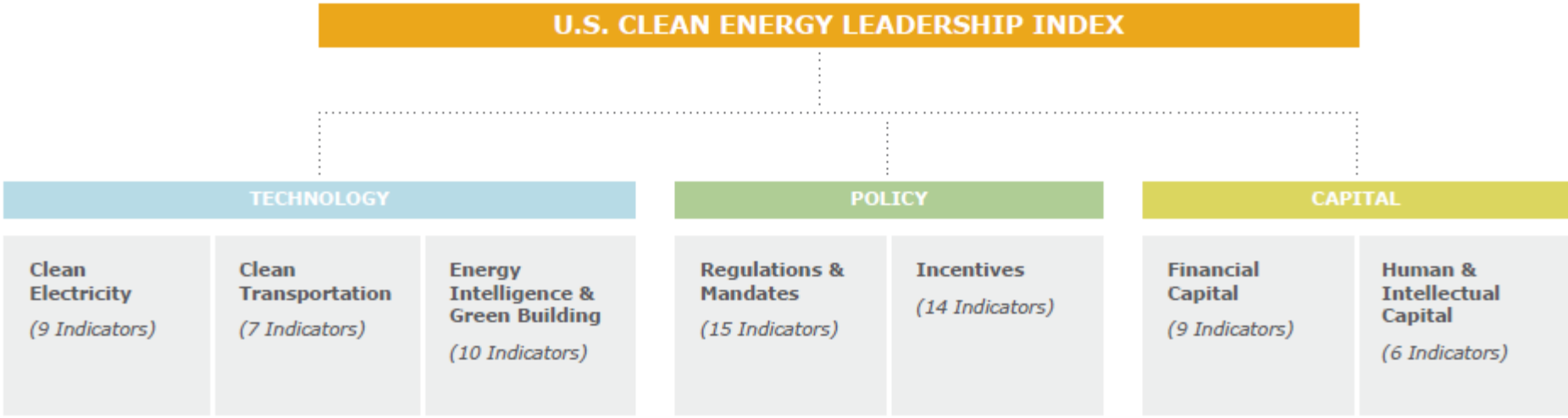
Rapidly Shifting Industry

Stakeholders need to know the latest

- Many clean-tech sectors have seen 30+ percent annual growth over the past decade, and continued double-digit expansion is forecast
- Major factors impacting the landscape:
  - Technology is rapidly advancing and prices in some sectors (e.g., solar) are falling rapidly
  - City and state initiatives are currently driving markets and best practices are emerging (each market is unique)
  - Low-cost natural gas provides both challenges and opportunities for clean-tech growth
  - Financing is in a state of flux and new models are emerging
- The *State Index*:
  - Gives a detailed view of current and historical landscape
  - Provides critical insight on new market dynamics
  - Guides planning process for economic developers

State Clean Energy Leadership Index

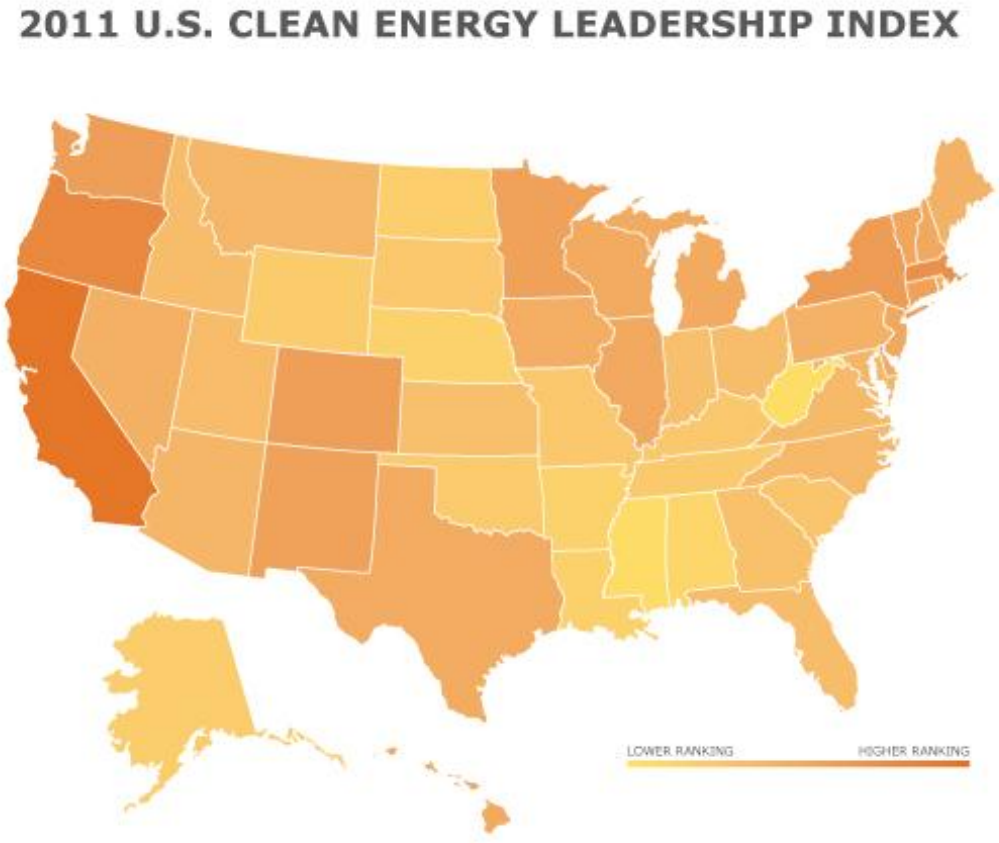
Structure and Methodology



- Covers all **50 states**
- Aggregates **more than 70** indicators in an easy-to-understand format
- Combines **20+ data sources** from public (FERC, EIA, DOE, etc.), private (venture, patent, etc.) and Clean Edge derived indicators
- Levels the playing field by using **denominators** such as state population and GDP
- Monitors **technology, policy, and capital** activities
- Data **released annually** for analysis on trending

State Clean Energy Leadership Index

2011 Overall Results



RANK	STATE	SCORE	RANK	STATE	SCORE
1	California	95.3	26	Montana	40.3
2	Oregon	79.4	27	North Carolina	38.0
3	Massachusetts	71.8	28	Virginia	36.9
4	New York	63.1	29	Utah	35.9
5	Colorado	60.2	30	Ohio	35.2
6	Washington	60.0	31	Florida	35.0
7	New Mexico	57.0	32	Idaho	34.6
8	Minnesota	57.0	33	Indiana	32.2
9	Connecticut	56.9	34	Kansas	32.1
10	Vermont	53.2	35	Georgia	30.8
11	New Hampshire	51.3	36	South Carolina	26.8
12	Illinois	51.1	37	Missouri	25.3
13	New Jersey	50.8	38	South Dakota	24.7
14	Michigan	50.2	39	Kentucky	24.5
15	Wisconsin	49.9	40	Tennessee	23.8
16	Hawaii	49.7	41	Oklahoma	22.0
17	Delaware	48.7	42	Wyoming	21.2
18	Texas	47.6	43	Alaska	20.3
19	Iowa	46.8	44	North Dakota	19.3
20	Nevada	45.0	45	Louisiana	16.8
21	Rhode Island	43.8	46	Nebraska	16.4
22	Pennsylvania	43.4	47	Arkansas	15.8
23	Maine	42.7	48	Alabama	13.2
24	Arizona	40.7	49	Mississippi	6.9
25	Maryland	40.5	50	West Virginia	6.4

Source: Clean Edge, Inc., 2011

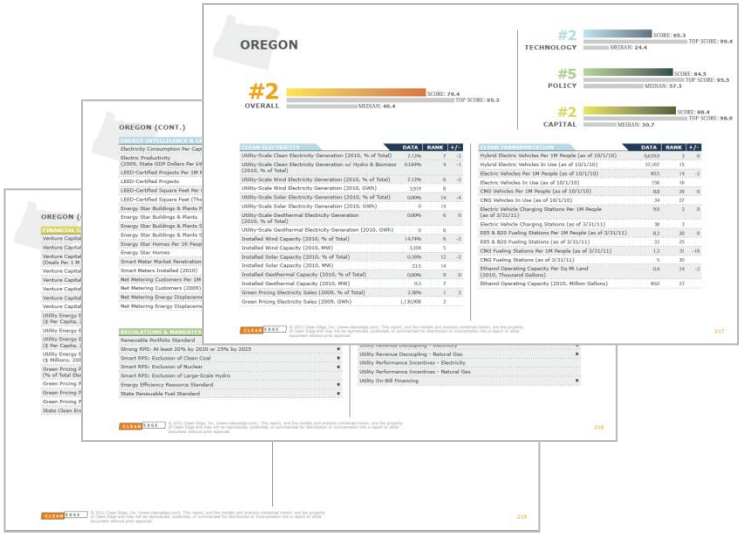
Data and rankings updated annually each May

State Clean Energy Leadership Index

Indicator Data Presentation Formats

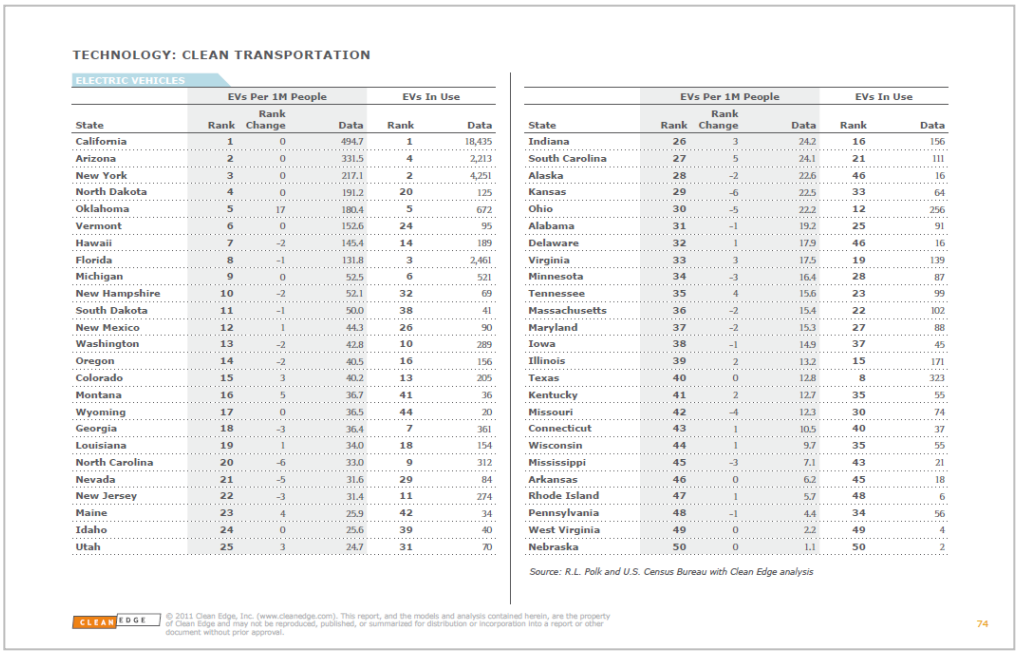
State Report Cards

- Overview of index and category ranks/scores for each state
- Performance data for each indicator
- Year-to-year indicator rank changes



Indicator Performance Data Tables

- 50-state layout organized from best to worst performers
- Data sorted by size-adjusted (normalized) figure but overall state ranks and figures shown as well



TECHNOLOGY: CLEAN TRANSPORTATION

ELECTRIC VEHICLES

State	EVs Per 1M People Rank	Rank Change	EVs Per 1M People Data	EVs In Use Rank	EVs In Use Data
California	1	0	494.7	1	18,435
Arizona	2	0	331.5	4	2,213
New York	3	0	217.1	2	4,251
North Dakota	4	0	191.2	20	125
Oklahoma	5	17	180.4	5	672
Vermont	6	0	152.6	24	95
Hawaii	7	-2	145.4	14	189
Florida	8	-1	131.8	3	2,461
Michigan	9	0	52.5	6	521
New Hampshire	10	-2	52.1	32	69
South Dakota	11	-1	50.0	38	41
New Mexico	12	1	44.3	26	90
Washington	13	-2	42.8	10	289
Oregon	14	-2	40.5	16	156
Colorado	15	3	40.2	13	205
Montana	16	5	36.7	41	36
Wyoming	17	0	36.5	44	20
Georgia	18	-3	36.4	7	361
Louisiana	19	1	34.0	18	154
North Carolina	20	-6	33.0	9	312
Nevada	21	-5	31.6	29	84
New Jersey	22	-3	31.4	11	274
Maine	23	4	25.9	42	34
Idaho	24	0	25.6	39	40
Utah	25	3	24.7	31	70
Indiana	26	3	24.2	16	156
South Carolina	27	5	24.1	21	111
Alaska	28	-2	22.6	46	16
Kansas	29	-6	22.5	33	64
Ohio	30	-5	22.2	12	256
Alabama	31	-1	19.2	25	91
Delaware	32	1	17.9	46	16
Virginia	33	3	17.5	19	139
Minnesota	34	-3	16.4	28	87
Tennessee	35	4	15.6	23	99
Massachusetts	36	-2	15.4	22	102
Maryland	37	-2	15.3	27	88
Iowa	38	-1	14.9	37	45
Illinois	39	2	13.2	15	171
Texas	40	0	12.8	8	323
Kentucky	41	2	12.7	35	55
Missouri	42	-4	12.3	30	74
Connecticut	43	1	10.5	40	37
Wisconsin	44	1	9.7	35	55
Mississippi	45	-3	7.1	43	21
Arkansas	46	0	6.2	45	18
Rhode Island	47	1	5.7	48	6
Pennsylvania	48	-1	4.4	34	56
West Virginia	49	0	2.2	49	4
Nebraska	50	0	1.1	50	2

Source: R.L. Polk and U.S. Census Bureau with Clean Edge analysis

74

State Clean Energy Leadership Index

2011 Sample: Partial State Report Card

NEW YORK

#4 OVERALL — SCORE: 63.1 | TOP SCORE: 95.3 | MEDIAN: 40.4

#18 TECHNOLOGY — SCORE: 32.4 | TOP SCORE: 99.4 | MEDIAN: 24.4

#2 POLICY — SCORE: 94.9 | TOP SCORE: 95.5 | MEDIAN: 57.3

#5 CAPITAL — SCORE: 62.1 | TOP SCORE: 98.9 | MEDIAN: 30.7

CLEAN ELECTRICITY	DATA	RANK	+/-
Utility-Scale Clean Electricity Generation (2010, % of Total)	2.01%	21	-2
Utility-Scale Clean Electricity Generation w/ Hydro & Biomass (2010, % of Total)	22.08%	9	0
Utility-Scale Wind Electricity Generation (2010, % of Total)	2.01%	20	-2
Utility-Scale Wind Electricity Generation (2010, GWh)	2,750	14	
Utility-Scale Solar Electricity Generation (2010, % of Total)	0.00%	14	-4
Utility-Scale Solar Electricity Generation (2010, GWh)	0	14	
Utility-Scale Geothermal Electricity Generation (2010, % of Total)	0.00%	6	0
Utility-Scale Geothermal Electricity Generation (2010, GWh)	0	6	
Installed Wind Capacity (2010, % of Total)	3.23%	19	0
Installed Wind Capacity (2010, MW)	1,275	13	
Installed Solar Capacity (2010, % of Total)	0.14%	14	-2
Installed Solar Capacity (2010, MW)	55.5	7	
Installed Geothermal Capacity (2010, % of Total)	0.00%	10	0
Installed Geothermal Capacity (2010, MW)	0.0	10	
Green Pricing Electricity Sales (2009, % of Total)	0.26%	18	-4
Green Pricing Electricity Sales (2009, GWh)	358,271	6	

CLEAN TRANSPORTATION	DATA	RANK	+/-
Hybrid Electric Vehicles Per 1M People (as of 10/1/10)	4,670.6	23	1
Hybrid Electric Vehicles In Use (as of 10/1/10)	91,439	2	
Electric Vehicles Per 1M People (as of 10/1/10)	217.1	3	0
Electric Vehicles In Use (as of 10/1/10)	4,251	2	
CNG Vehicles Per 1M People (as of 10/1/10)	55.5	7	-1
CNG Vehicles In Use (as of 10/1/10)	1,087	3	
Electric Vehicle Charging Stations Per 1M People (as of 3/31/11)	0.5	24	0
Electric Vehicle Charging Stations (as of 3/31/11)	10	8	
E85 & B20 Fueling Stations Per 1M People (as of 3/31/11)	4.4	33	0
E85 & B20 Fueling Stations (as of 3/31/11)	87	15	
CNG Fueling Stations Per 1M People (as of 3/31/11)	5.1	5	1
CNG Fueling Stations (as of 3/31/11)	100	2	
Ethanol Operating Capacity Per Sq Mi Land (2010, Thousand Gallons)	3.5	14	3
Ethanol Operating Capacity (2010, Million Gallons)	164.0	15	

State Clean Energy Leadership Index

2011 Sample: Partial State Report Card

CONNECTICUT (CONT.)

ENERGY INTELLIGENCE & GREEN BUILDING	DATA	RANK	+/-
Electricity Consumption Per Capita (2010, Annual kWh)	8,628	7	1
Electric Productivity (2009, State GDP Dollars Per kWh Consumed)	$7.24	4	-1
LEED-Certified Projects Per 1M People	21.0	28	-5
LEED-Certified Projects	74	24	
LEED-Certified Square Feet Per Capita	2.3	23	-2
LEED-Certified Square Feet (Thousand Sq Ft)	7,991	26	
Energy Star Buildings & Plants Per 1M People	31.5	30	-1
Energy Star Buildings & Plants	111	28	
Energy Star Buildings & Plants Square Feet Per Capita	5.5	17	-1
Energy Star Buildings & Plants Square Feet (Thousand Sq Ft)	19,412	22	
Energy Star Homes Per 1K People	2.3	26	-2
Energy Star Homes	7,979	27	
Smart Meter Market Penetration (2010, % of Total Meters)	0.1%	49	-12
Smart Meters Installed (2010)	1,967	49	
Net Metering Customers Per 1M People (2009)	383.5	11	0
Net Metering Customers (2009)	1,348	12	
Net Metering Energy Displacement (2009, % of Total)	0.00%	30	-15
Net Metering Energy Displacement (2009, MWh)	631	31	

REGULATIONS & MANDATES	DATA
Renewable Portfolio Standard	●
Strong RPS: At least 20% by 2020 or 25% by 2025	●
Smart RPS: Exclusion of Clean Coal	●
Smart RPS: Exclusion of Nuclear	●
Smart RPS: Exclusion of Large-Scale Hydro	●
Energy Efficiency Resource Standard	●
State Renewable Fuel Standard	
Climate Action Plan	●
GHG Reduction Target	●
Membership in Active Regional Climate Initiative	●
Low Carbon Fuel Standard	●
State Fleet High Efficiency Vehicle Requirement	●
Mandated Green Power Purchasing Option	
Interconnection Law/Policy	●
Net Metering Law/Policy	●
Commercial Building Energy Policy*	◐
Residential Building Energy Policy*	◐

**See pages 56 and 57 for definition of building energy policy indicators.*

INCENTIVES	DATA
Grants - Renewable Energy	●
Grants - Energy Efficiency	
Loans - Renewable Energy	●
Loans - Energy Efficiency	●
Rebates - Renewable Energy	●
Rebates - Energy Efficiency	●
Bonds - Renewable Energy	
Bonds - Energy Efficiency	
Clean-Tech Vehicle Purchasing Incentive	
Utility Revenue Decoupling - Electricity	●
Utility Revenue Decoupling - Natural Gas	●
Utility Performance Incentives - Electricity	●
Utility Performance Incentives - Natural Gas	
Utility On-Bill Financing	●

State Clean Energy Leadership Index

2011 Sample: Partial State Report Card

MASSACHUSETTS (CONT.)

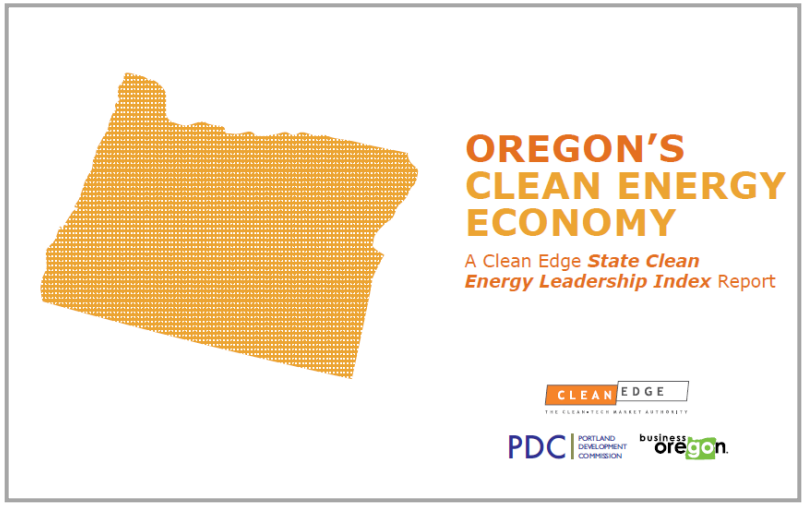
FINANCIAL CAPITAL	DATA	RANK	+/-
Venture Capital Investment ($ Per Capita, 2008-2010)	$186.03	2	0
Venture Capital Investment ($ Millions, 2008-2010)	$1,233.65	2	
Venture Capital Investment (Deals Per 1 M People, 2008-2010)	15.5	1	0
Venture Capital Investment (Total Deals, 2008-2010)	103	2	
Venture Capital Investment ($ Per Capita, 2010)	$59.75	2	-1
Venture Capital Investment ($ Millions, 2010)	$396.24	2	
Venture Capital Investment (Deals Per 1M People, 2010)	6.2	1	0
Venture Capital Investment (Total Deals, 2010)	41	2	
Utility Energy Efficiency Program Budget ($ Per Capita, 2010)	$53.85	2	6
Utility Energy Efficiency Program Budget ($ Millions, 2010)	$357.10	4	
Utility Energy Efficiency Program Expenditures ($ Per Capita, 2009)	$33.89	5	2
Utility Energy Efficiency Program Expenditures ($ Millions, 2009)	$223.40	4	
Green Pricing Program Revenue (% of Total Electricity Revenue, 2009)	0.07%	26	-11
Green Pricing Program Revenue ($ Millions, 2009)	$6.23	19	
Green Pricing Program Customers Per 1K People (2009)	2.1	26	0
Green Pricing Program Customers (2009)	13,717	17	
State Clean Energy Fund or Public Benefit Fund	●		

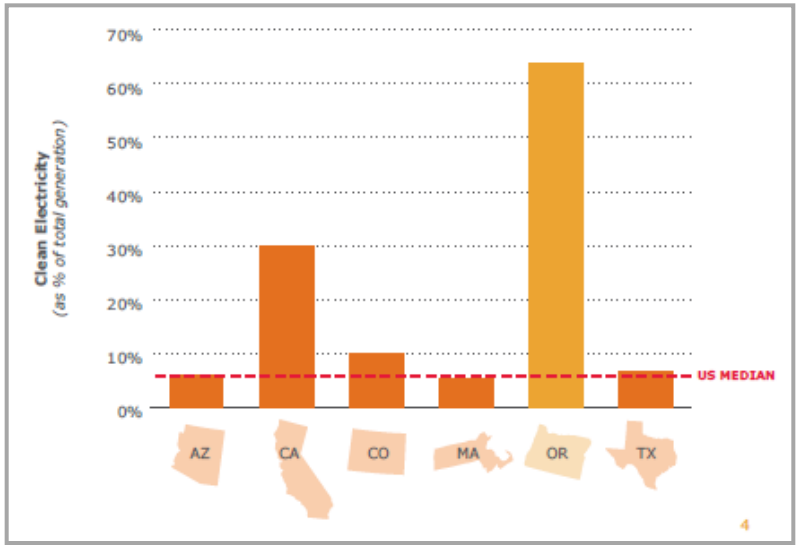
HUMAN & INTELLECTUAL CAPITAL	DATA	RANK	+/-
Clean Energy Patents (Patents Per 1M People, 2010)	4.5	9	-5
Clean Energy Patents (Total, 2010)	30	5	
Clean Energy Patents (Patents Per 1M People, 2002-2010)	22.0	6	0
Clean Energy Patents (Total, 2002-2010)	146	7	
Presence of DOE Lab			
Presence of Clean Energy Alliance Incubator			
Presence of Top-Ranked Green MBA Program	●		
Presence of Top-Ranked American Research University	●		
Clean Energy Jobs (2007, % of Total)	0.69%	4	0
Clean Energy Jobs (2007)	26,678	8	
Online Job Board Post Activity State Rank	1		3

State Clean Energy Leadership Index

Case Study – Oregon: PDC & Business Oregon

- Providing insight about Oregon's clean-energy economy for subscribers Portland Development Commission and Business Oregon
- Delivered custom public report in 2011 highlighting Oregon's strongest areas of activity and areas of opportunity by comparing its performance against five other leading states
- Working with Oregon to publish custom benchmarking on an annual basis and working to help state refine its clean-tech economic development strategy

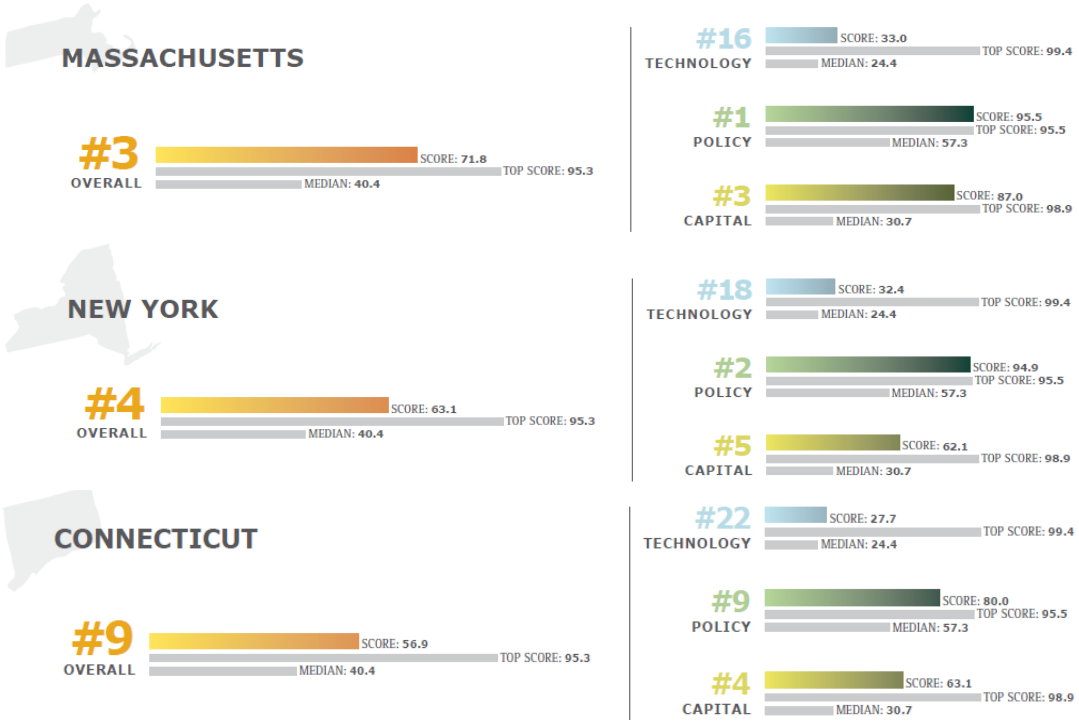




State Clean Energy Leadership Index

Case Study – State Energy Office

- Review of state's clean-tech strengths, weaknesses, opportunities, and challenges
- Custom webinar and advisory work focused on state benchmarking
- Used to help guide the development of State energy strategy
- Included work in Oregon, Massachusetts, New York



State Clean Energy Leadership Index

Case Study – Asian Import/Export Organization

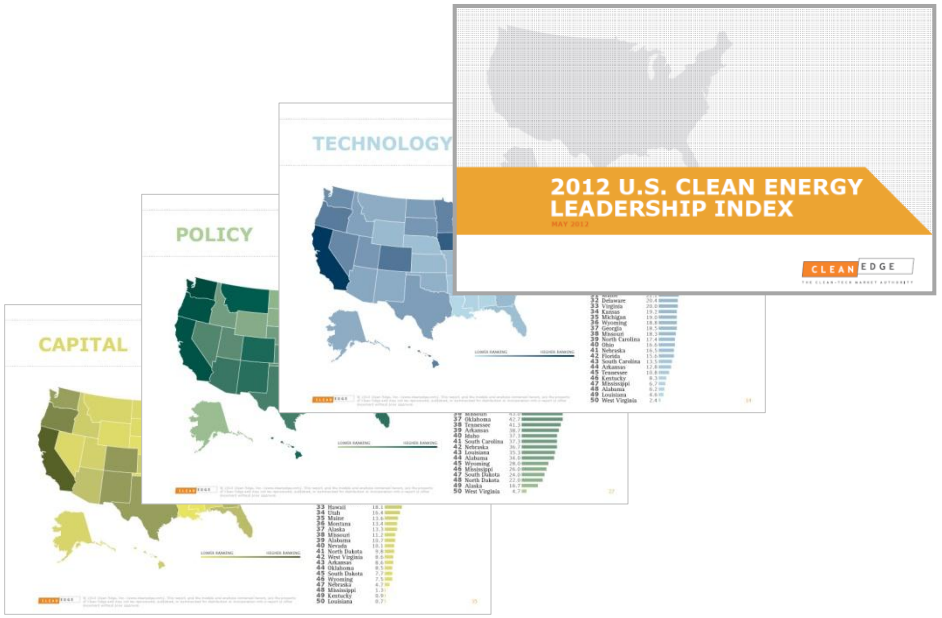
- Evaluated and identified market opportunities, by state, via custom benchmarking of the wind, solar, smart grid, green building, and EV sectors
- Created a list and overview of top companies that fit the client's objectives

	Green Building: Top 10 States (Summary Indicator Data)									
	CA	CO	TX	MA	VA	OR	WA	NC	UT	WI
State Sector Rank	1	2	3	4	5	6	7	8	9	10
LEED-Certified Projects Per 1M People	29.01	51.81	18.32	43.88	30.81	59.91	50.99	22.31	18.02	23.82
LEED-Certified Projects	1,081	264	462	291	245	231	344	211	51	135
Energy Star Buildings & Plants Per 1M People	69.74	93.81	38.07	45.39	79.48	49.80	45.51	84.79	52.99	79.03
Energy Star Buildings & Plants	2,599	478	960	301	632	192	307	802	150	448
Energy Star Homes Per 1K People	3.75	3.84	13.36	2.87	1.12	4.66	2.26	2.54	6.66	2.60
Energy Star Homes	139,821	19,544	336,857	19,055	8,882	17,953	15,277	23,995	18,854	14,751
Buildings & Lighting Venture Capital Investment ($ Per Capita, 2008-2010)	$14.24	$12.92	$3.37	$32.35	$10.61	$0.81	$1.57	$0.43	$13.41	$0
Buildings & Lighting Venture Capital Investment ($ Millons, 2008-2010)	$525.4	$64.8	$83.6	$213.3	$83.4	$3.1	$10.5	$4.0	$37.3	$0

State Clean Energy Leadership Index

Value for CESA Members

- Ensure your stakeholders are getting current and objective economic and market data for one of the fastest growing industries
- Understand the state-level developments that are driving job growth and economic activity in the industry, particularly in the absence of national policy
- Benchmark and evaluate policy effectiveness, technology deployment, and financial and intellectual capital
- Special benefits and pricing for CESA members who subscribe to the *State Index* service. Group package also available, which provides price discount for each participating organization and added benefits.



State Clean Energy Leadership Index

Annual Subscription Pricing
(Single Organization, Internal Staff)

State Index Benefits	Standard Access $10,000	Enterprise Access $15,000
Report and Data Access	*10 Staff*	*50 Staff*
Advisory Support	*5 hours*	*10 hours*
Custom Webinar Presentation	✓	✓
Slides from Custom Presentation	✓	✓
Permission to Cite Data Publicly	✓	✓
Clean-Tech Company List and Map		✓

Contact Ron or Bryce with Clean Edge for details OR let Maria or Mark with CESA know about your interest in learning more about the *State Index*.
Special discounted offers available for CESA members.

QUESTIONS?

Ron Pernick
Managing Director
pernick@cleanedge.com
503.493.8681

Bryce Yonker
Director of Business Development
yonker@cleanedge.com
503.206.8448

www.cleanedge.com

Copyright and Disclaimer