# DRIVING FORWARD THE CLEAN ENERGY ECONOMYReview of 2019 & Outlook for 202001.16.2020



### TODAY'S PRESENTERS



Charles Hernick Director of Policy and Advocacy, Citizens for Responsible Energy Solutions Forum



Doug Rand Former Assistant Director for Entrepreneurship, White House Office of Science & Technology Policy



Ruth McCormick Director of Federal and State Affairs, Business Council for Sustainable Energy



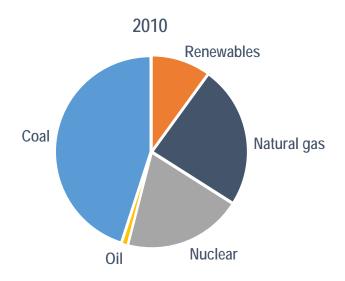
Lynn Abramson President, Clean Energy Business Network



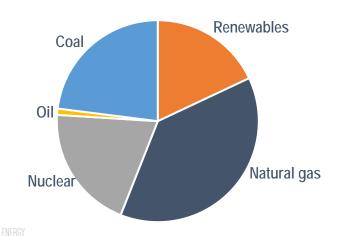
## A DECADE OF TRANSFORMATION

### THE U.S. ENERGY ECONOMY HAS TRANSFORMED OVER THE PAST DECADE

#### $U\,.S\,.$ electricity generation









77% growth Renewable energy generation



production



18% growth Energy productivity (\$ trillion G DP/quadrillion BTU)

Sustainable Energy in America Factbook









## CLEAN ENERGY BUSINESS NETWORK.

















Clean energy in the U.S. attracted **\$64 BILLION IN INVESTMENT** in 2018–up 11% since 2017. 2019 Sustainable Energy in America Statbook







## THE SMALL BUSINESS VOICE FOR THE CLEAN ENERGY ECONOMY





Market & Technology Education



Business Development Assistance

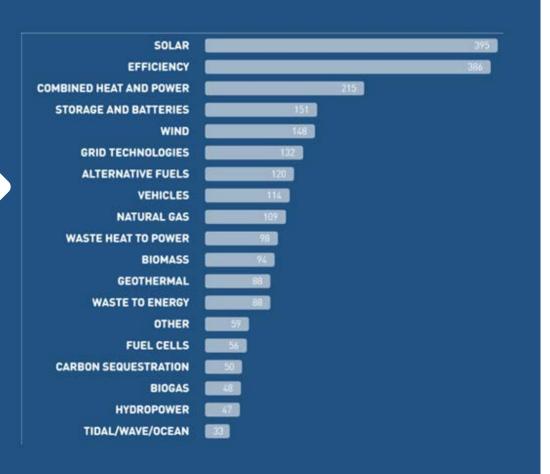


## OUR REACH

New milestones reached Jan 2020 3,400+ business leaders across 50 states 50+ premium members



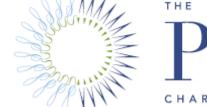
### Diverse technologies





## A DECADE OF TRANSFORMATION FOR CEBN









## for Sustainable Energy®

2019:

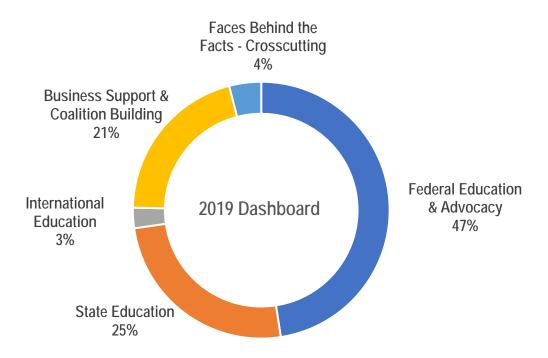






### CEBN GOALS





## 2019 REVIEW AND 2020 OUTLOOK FEDERAL & STATE POLICY

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Ruth McCormick Director of Federal and State Affairs Business Council for Sustainable Energy



### **2019 Federal Highlights**

### **Budget and Appropriations**

- Rocky start to the year with a partial government shutdown
- Two-year bipartisan budget agreement in August
- Increased funding for clean energy programs in the December FY2020 omnibus appropriations bill (PL 116-94), including those at the Department of Energy, the Environmental Protection Agency, rural energy programs and for international efforts to combat climate change
  - Overall 8% increase at DOE EERE
    - Solar + \$33.5 m for total of \$280 m
    - Wind + \$12 m for total of \$104 m
    - Water + \$43 m for total of \$148 m
    - Geothermal + \$26 m for total of \$110 m
    - Sustainable Transportation + \$115.5m for total of \$805.5 m
    - Energy Efficiency + \$203 m for total of \$1.091 b



### Funding (in Millions of Dollars)

Program	House FY 2020 Bill	Senate FY 2020 Bill	Final FY 2020 Bill	Change from FY19
Department of Energy	37,087	39,031	38,586	+2,901
Energy Efficiency & RE	2,651	2,800	2,848	+469
Cyber/Energy Security	156	179	156	+36
Office of Electricity	200	221	190	+34
Office of Fossil R&D	740	800	750	+10
Office of Science	6,870	7,215	7,000	+415
ARPA-E	425	428	425	+59
Loan Guarantee Program	39	39	39	16/1
CHP Technical Assistance	12	12	12	<u> 11/1-</u>

Contemport 121

### **2019 Federal Highlights**

#### **Tax Policy**

- Short term extension through 2020 of clean energy tax credits included in end-of-year omnibus appropriations bill (PL 116-94), but nothing new (storage, solar ITC extension)
- Release of GREEN Act Discussion Draft in November



### Federal 2020 Outlook

#### Surface Transportation Legislation

Expires September 2020. Senate EPW bill includes climate change title and alternative fueled vehicle refueling infrastructure. House of Representatives to reveal its approach soon

#### Energy and Climate Change Legislation

House E&C Committee CLEAN Futures Act discussion draft released in January to achieve a 100 percent net clean energy economy by 2050. The Senate Energy and Natural Resources Committee energy and climate bill will start with 52 energy bills reported from the Committee (December 12, 2019; November 19, 2019; September 25, 2019; July 16, 2019).

#### Federal budget

Clean energy programs received a plus up in the omnibus FY2020 omnibus appropriations bill, but work will be needed to continue the trend

#### • Tax policy

Clean energy tax credits will be on the docket again this year, as only a short-term extension was passed at the end of 2019. Possible legislation includes the currently proposed GREEN Act in the House

Transmission and Grid Modernization

The need for new transmission and grid modernization has long been evident but is gaining increased attention as Congress begins looking at ways to address climate change and energy infrastructure





Charles Hernick Director of Policy and Advocacy Citizens for Responsible Energy Solutions Forum



## House Highlights

- CF
- Energy Savings Through Public-Private Partnerships Act Would encourage the increased use of performance contracting in federal facilities
  - <u>S.1706</u> (Sens. Gardner CO, Coons DE) Reported by ENR
  - <u>H.R.3079</u> (Reps. Welch VT, Kinzinger IL) *Reported by E&C*
- <u>ARPA-E Reauthorization Act of 2019</u> bill authorizes ARPA-E for 5 years up to \$1 billion in 2024 and has a few other differences compared to current law
  - Senate introduction pending
  - H.R.4091 (Rep. Johnson TX; Rep. Lucas OK) Reported by SST
- <u>Reliable Investment in Vital Energy Reauthorization Act</u> Would reauthorize hydroelectric production incentives and hydroelectric efficiency improvement incentives
  - Senate introduction pending
  - <u>H.R.3361</u> (Reps. McKinley WV, Tonko NY) *Reported E&C*

See more at: https://www.citizensfor.com/opportunities/

## Senate Highlights

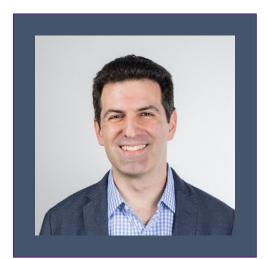


- <u>S.383</u> (Sens. Barrasso WY, Whitehouse RI) *Reported by EPW*
- <u>H.R.1166</u> (Reps. Peters CA, McKinley WV)
- Energy Savings Through Public-Private Partnerships Act Would encourage the increased use of performance contracting in federal facilities.
  - <u>S.1706</u> (Sens. Gardner CO, Coons DE) Reported by ENR
  - <u>H.R.3079</u> (Reps. Welch VT, Kinzinger IL)
- <u>Vehicle Innovation Act</u> Would promote investments in R&D of clean vehicle and advanced safety technologies to increase fuel efficiency.
  - <u>S.1085</u> (Sens. Peters MI, Alexander TN) Reported by ENR
  - <u>H.R.2170</u> (Rep. Dingell MI)

See more at: <u>https://www.citizensfor.com/opportunities/</u>

## State Highlights for 2020

- PJM states are dealing with the FERC capacity market MPOR
- More 100% targets
  - Maryland will \_\_\_\_\_ a Clean and Renewable Energy Standard (CARES)
- Regional Greenhouse Gas Initiative could grow to include Pennsylvania and Virginia
- Transportation Climate Initiative will \_\_\_\_\_
- Virginia, Connecticut and Maine may establish energy storage targets



Doug Rand Former Assistant Director for Entrepreneurship, White House Office of Science & Technology Policy



## Small Business Innovation Research (SBIR)

- Established by Congress in 1982, the Small Business Innovation Research (SBIR) program is the federal government's largest annual funding opportunity available exclusively to startups and small businesses.
- Awards administered by 11 other federal agencies, each of which is obligated by Congress to set aside 3.65% of its extramural R&D budget.

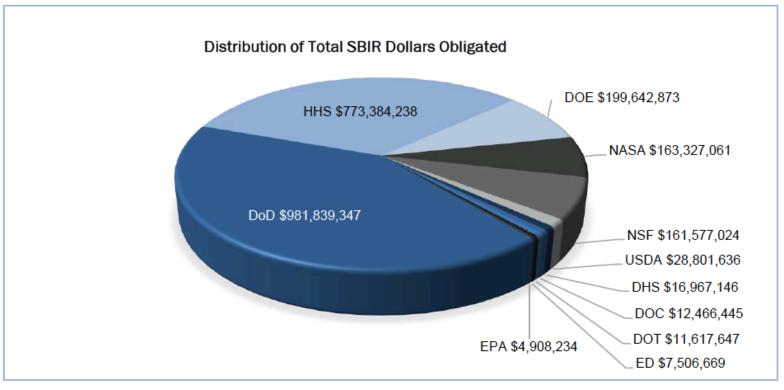


Chart 1: Distribution of Total SBIR Dollars Obligated - Participating Agencies

## Suggested Improvements

- Agency excellence (make Administrative Pilot Program permanent)
- Entrepreneurial authority
- Award flexibility
- Award size
- Short-form first-round application
- Vouchers for businesses needing assistance
- Dedicated program managers
- Support for science-based entrepreneurship programs



Lynn Abramson President Clean Energy Business Network



### FEDERAL APPROPRIATIONS





#### Advocacy:

- <u>Fly-in to Washington DC (4/12) 14 Participants</u>
- <u>FY2020 Appropriations Sign-on Letter</u> (4/12) 48 Signatures

#### Media:

- Lynn Abramson, CEBN: <u>Congress Should Help Energy Innovators Power Technologies</u>, Economy of the Future Morning Consult, March 15, 2019
- Gary Cola, Flash Steelworks (Washington, MI): Opinion: Investment turns the Rust Belt green The Detroit News, May 1, 2019
- Lorry Wagner, LEEDCo (Cleveland, OH): Lake Erie wind project breaks the ice on energy innovation Crain's Cleveland Business, June 9, 2019
- Ben Edgar, White Harvest Energy (Chattanooga, TN): <u>Rethinking Tennessee's energy future</u> The Tennessean, June 27, 2019
- Kay Aikin, Introspective Systems (Portland, ME): <u>LTE-Collins Bill Promotes Energy Innovation</u> The Portland Press Herald, July 29,2019

Case Studies:

- Neuvokas
- Optimized Thermal Systems
- Powerfield

## FEDERAL TAX INCENTIVES

Advocacy:

- <u>2019 Tax Extenders Sign-on Letter</u> (3/19) 64 Signatures, also submitted to House
  Ways & Means for hearing record and Senate Finance in response to extenders package
- WHP ITC Act (7/25) 67 signatures
- <u>Tax Action Central</u> (10/17-12/17) 60 signatures
- Fly-ins and in-district meetings (11/14-11/20) 6 Participants

Media:

Phil Brennan, Echogen Power Systems (Akron, OH): <u>Advanced energy storage could</u> <u>be Ohio's next boom with the help of federal investment tax credits</u> – *Dec. 11, 2019* 





### SMALL BUSINESS INNOVATION RESEARCH (SBIR) REFORM



#### Advocacy:

- <u>SBIR Improvements Sign-on Letter</u> (9/18) 46 signatures
- Abramson testimony before House Small Business Committee

#### Media:

 Lynn Abramson, CEBN & Gary Cola, Flash Steelworks: <u>SBIR: The Most Impactful Energy Program You've Never Heard Of</u> – Morning Consult, Oct. 3, 2019

Case Studies:

Overlap with appropriations case studies and fly-in company descriptions

## GET INVOLVED IN CLEAN ENERGY **POLICY** IN 2020!

- Sign onto SBIR Reform Letter
- Apply for March 2020 Appropriations Fly-in
  - Prior DOE grant recipients located in districts/states served by members of key committees: <u>House</u> <u>Appropriations</u>, <u>Senate Appropriations</u>, <u>House Small Business</u>, <u>Senate Small Business</u>, and <u>House Science</u>
- Use <u>Tax Action Central</u> to send messages on outstanding tax priorities
- Stay tuned for action alerts/letters on FY2021 appropriations, tax, and other legislation
- <u>Contact us</u> about writing opeds, LTEs, or letters to members of Congress on your priorities



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## 2019 REVIEW AND 2020 OUTLOOK MARKET AND TECHNOLOGY EDUCATION

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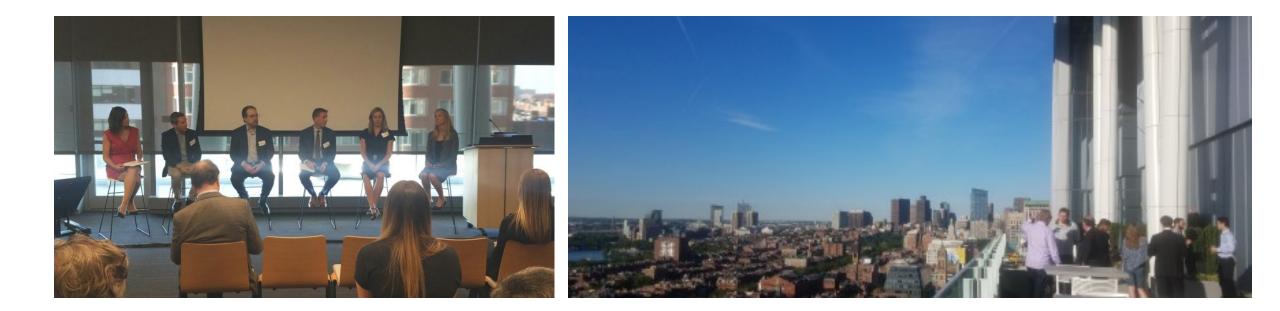


### SEPTEMBER 23-27, 2019

## **CEBNP**<sup>d</sup>**WERCIRCUIT**

Boston, MA • 6.12.19 • Boston and the Global Cleantech Investment Landscape





## **CEBNP**<sup>d</sup>**WERCIRCUIT**

Corpus Christi, TX • Nov. 12–13, 2019 • Clean Energy Solutions for Industrial Economies





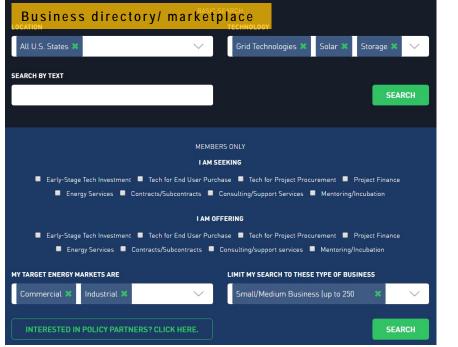


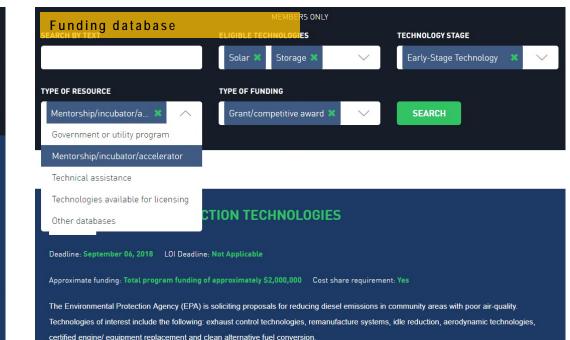
## GET INVOLVED IN CLEAN ENERGY **EDUCATION** IN 2020!

- <u>Apply</u> to be featured in the 2020 edition of our <u>Faces Behind the Facts</u> series
- Sponsor a CEBN Power Circuit event or series
- Host, sponsor, or attend a <u>National Clean Energy Week</u> event (Sept. 21-25, 2020)
- Follow and share our social media content (<u>Twitter</u>, <u>LinkedIn</u>, <u>Facebook</u>)

## 2019 REVIEW AND 2020 OUTLOOK BUSINESS SUPPORT & COALITION BUILDING

### BUSINESS DEVELOPMENT RESOURCES





 Premium member resources focus on an aggregation of information and opportunities for greater exposure

#### Premium MEMBER CONNECTIONS

#### Lithium Ion Storage Solution Needed for 9 MW Project

EPIcenter, CEBN's partner organization, is currently seeking options for li-ion batteries for a 9-MW project on behalf of a partner. The lead time is currently projected at 45-52 weeks and the customer is seeking a solution in less than 30 weeks. Please contact Andy Barnes with any leads or referrals.

Featured spots in newsletter Upgrade to premium membership for the opportunity to share your offerings or expertise!







Practice Pitch & Reception – May 14, 2019



### CEBN "TECHNICAL DIALOGUES" AND BUSINESS DEVELOPMENT CONTENT



Growing library of content includes: business valuation, benefits, equity dilution, intellectual property, and information/advice on specific government funding programs

## GET INVOLVED IN CLEAN ENERGY **INDUSTRY COLLABORATION** IN 2020!

- Upgrade to a premium membership
- Visit "<u>My Account</u>" to update your profile & connection settings in our Member Directory
- Search our <u>Funding Database</u> for opportunities matching your interests
- <u>Flag partnership opportunities</u> for Member Connections section of newsletter
- <u>Propose ideas</u> for a Technical Dialogues webinar/blogpost
- Attend and exhibit at events

### FOLLOW UP

- Lynn Abramson: <a href="mailto:labramson@cebn.org">labramson@cebn.org</a>
- Andy Barnes: <a href="mailto:abarnes@cebn.org">abarnes@cebn.org</a>
- Promo code Changemaker2020 for 20% off through end of January



