Chair Dianne Feinstein S-128 Capitol U.S. Senate Washington, D.C. 20510

Ranking Member John Kennedy S-128 Capitol U.S. Senate Washington, D.C. 20510 Chair Marcy Kaptur 2362-B Rayburn HOB U.S. House of Representatives Washington, D.C. 20515

Ranking Member Mike Simpson 2362-B Rayburn HOB U.S. House of Representatives Washington, D.C. 20515

April 8, 2021

#### Subject: FY 2022 Appropriations for Distributed Wind

Dear Chair Kaptur, Ranking Member Simpson, Chair Feinstein and Ranking Member Kennedy:

On behalf of the Distributed Wind Energy Association, and the partners signed below, we urge your continued support for distributed wind power in the fiscal year 2022 appropriations process; and ask that you fund the program proportionally to its potential benefits for domestic economic growth and the environment.

Many energy experts have been surprised to discover that onshore distributed wind has the potential to produce as much as four times the amount of total electricity consumed in the US¹, completely carbon free.

The potential is similar to offshore wind electricity production, is complementary to it and has numerous benefits. While all types of energy systems create jobs and profits, as the name implies, the benefits of distributed wind are spread broadly across the landscape and the economic spectrum. Distributed wind energy:

Many energy experts have been surprised to discover that onshore distributed wind<sup>1</sup> has the potential to produce as much as four times the amount of total electricity consumed in the US, ... about equal to... offshore wind.

- creates economic mobility and offers training and job opportunities both in growing work-from-home communities and hard-hit rural areas in need of well-paying jobs, especially those communities impacted by the energy transition:
  - o distributed wind can help with displaced energy workers throughout the country, including Appalachia, the Midwest and in Western states;
- supports local small and medium-size manufacturers;
- supports small and medium-size installation and service businesses, keeping money and jobs in the local communities;
- encourages energy self-sufficiency for farmers, ranchers and small to medium businesses by:
  - o lowering costs;
  - o creating new income streams; and
- can cut building energy demand through on-site installations in rural, industrial, and populated areas, helping meet the goal of lowering the carbon intensity of buildings 50% by 2035.

Distributed wind turbines dot the American landscape, from farms to factories, homes, wildlife refuges, breweries, wineries, ski resorts, and schools. American made turbines are found in well over 100 countries as well. And yet this is still a nascent clean energy technology ripe for growth.

<sup>&</sup>lt;sup>1</sup> National Renewable Energy Laboratory; Technical Report NREL/TP-6A20-67337 November 2016; Eric Lantz, Benjamin Sigrin, Michael Gleason, Robert Preus, and Ian Baring-Gould as "behind the meter" applications, where the installation is on site.

The National Renewable Energy Laboratory (NREL) estimates distributed wind power could reach another 49 million sites in the U.S. alone. Notably, distributed wind power works well with solar, as well as other distributed generation applications, including those systems designed to add resilience for

wildfires and other natural disasters, especially at military bases, first responder facilities and remote communities.

Yet US distributed wind manufacturing and installations, especially small wind projects, are losing ground: A PNNL report for EERE noted that the number of manufacturers reporting sales in 2018 was down substantially, and even more troubling, US based small wind manufacturers still

"US based small wind manufacturers still account for most US small wind sales, but the 76% market share represents a substantial decline from 94% in 2017, 98% in 2016, and the nearly 100% reported in 2015." <sup>2</sup>

2018 Distributed Wind Market Report

account for most US small wind sales, but the 76% market share represents a substantial decline from 94% in 2017, 98% in 2016, and the nearly 100% reported in 2015."<sup>2</sup>

The same report noted that US shares of foreign markets declined by almost 60% from 2017 to 2018. The EU, China and other countries are continuing to support their wind energy companies with R&D and other assistance.

While the cost of distributed wind has come down, the costs have not come down as fast as the bigger turbines. Offshore has comparable costs and potential to distributed wind, though distributed wind has historically received only one-third to one-fifth of the research, development and demonstration funding. Federal investment is the key.

Distributed wind energy can help reach the ambitious goal of a carbon-free grid by 2035. With additional research and development, as well as deployment assistance, distributed wind can make an enormous contribution to America's energy future and economic recovery.

Increasing deployment has helped manufacturers of other energy technologies, notably solar and batteries, cut costs substantially. NREL estimated that high deployment could cut costs another 60%, making behind-the-meter applications competitive for over 100 million Americans. Remaining work includes improving operating efficiency and on-line hours: small distributed wind turbine capacity factors are about 60% that of big turbines. Other work includes optimizing technology for grid-connected, microgrid and off-grid market segments, expanding competitive improvement grants to manufacturers, reducing costs for both wind turbines and installations, addressing numerous "soft costs," and expanding partnerships with key stakeholders; the effort required is real and substantial.

We'd urge a line item for distributed wind power this year once again, at no less than \$30 million, and reaching levels approximating offshore wind investment. Our many small businesses, manufacturers, vendors, customers, farmers, rely heavily on this funding to help bolster American jobs and manufacturing, increase farm and rural income, provide homeowners and others energy choice, improve energy security and protect the environment.

Again, we urge you to maintain, and grow support, with clear directive language, for America's distributed wind power community. We greatly appreciate your consideration and look forward to working with you in the days ahead.

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based in Washington, DC



based in Florence, CO



based in Albany, NY operating statewide



based in Norfolk, MA, operating nationwide



based in Denver, CO serving all 50 states and international markets



based in Waitsfield, VT, and Mountain Home, ID

## AGEC

Agriculture Energy Coalition based in Washington, DC



based in Houston, TX, EU and operating worldwide



based in Juneau, AK



based in Seward, AK



## albrechtwindenergy

based in Willmar, MN

## ALL AMERICAN REMODELING

based in Oroville, CA



based in Milwaukee, WI



based in Williston, VT and operating nationally



based in Long Beach, CA



Alberta, MN



based in Baxter, MN and Sarasota, FL

## **American Corn Growers Foundation**

based in Lincoln, NE, operating nationwide





based in Denver, CO serving all 50 states and international markets

## **AON Engineering**

based in Jamul, CA



based in Golden, CO and Bellingham, WA, operating nationally



based in Mt. Vernon, NY

#### bachmann.



electronic corp.

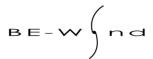
based in Charlestown, MA, San Francisco, CA, EU, and operating globally



based in Sandpoint, ID



based in Greenville, SC



based in Sanford, FL



based in Norman, OK serving all 50 states and international markets





based in Concord, MA



based in Hamlin, NY operating regionally



**BUFFALO** RENEWABLES INC

based in Amherst, NY and operating in OH, KS, CO, and VA





based in San Luis Obispo, CA



based in Wichita Falls, TX



based in Bellingham and Rockport, WA and operating across the Northwest



based in Seattle, WA and Oakland, CA



based in Harrisonburg, VA



based in NY, NY



based in Miami, FL



based in Everson, WA



based in Hutchinson, KS



Washington, DC



#### Critical Infrastructure Investments

based in Tucson, AZ



Climate . Energy . Water based in Montevideo, MN



#### Custom Agri Systems, Inc.

based in Napoleon, OH operating statewide and in WI, MI, IL, IN & KS



based in N. Chittenden, VT



based in North Hero, VT





based in Potsdam, NY



Dynamic Manufacturing based in Freeport, PA

## DYNAPOWER

based in South Burlington, VT, and Union City, CA



based in Lacey, WA



based in IL operating in IN, IA, MI, MN, ND, OH, SD, WI & DC





based in Eugene, OR



based in Palmdale CA, operating in region



based in Washington, DC



based in Burlington, VT, operating projects throughout U.S.



based in EU, operating in U.S.



Flower Turbines based in Lawrence, NY operating in the Midwest



based in San Francisco, CA, operating statewide

#### Four Winds Renewable Energy

based in Arkport, NY

#### **Future Energy Design**

based in Norman, OK



GOLD COAST
RENEWABLE ENERGY

Gold Coast Renewable Energy based in Medford, OR



based in Vineyard Haven, MA



based in Granville, OH operating statewide

#### **Green Power Farms**

Manchester Center, VT

#### **Green Prairie Energy**

based in Prole, IA



Green State Solutions based in Iowa City, IA



based in Ontario, NY



based in Oakland, CA operating across CA, CO, and nationwide



based in Ontario, NY

#### HENKELS LAW LLC

based in Portland & Newport, OR



HEWS Technologies, Inc. based in FL



based in Greenville, PA



based in Denver, CO with projects across the U.S. and globally

#### **Hyriser Corporation**

based in Orange, CA



based in Minneapolis, MN



based in Brea, CA operating nationwide



based in MN, ME, and DC



based in MT and CO

## Indiana<mark>DG</mark>

Working to promote renewable energy and distributed generation based in Indianapolis, IN

# INSTITUTE FOR SUSTAINABLE POWER INC

Washington, DC



based in Anchorage, AK

# *MINTERGRID*

based in Temple, NH







based in Salt Lake City, UT



KETTLE VIEW RENEWABLE ENERGY, LLC

based in Rhinelander, WI, operating in the Midwest

## KEYES&FOX LLP

based in San Diego, CA, Denver, CO, and Burdett, NY



based in St. Paul MN, operating nationwide



based in Albuquerque, NM



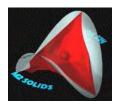
**LAUNCH ALASKA** based in Anchorage, AK

## LocalEnergy Alliance of Washington

based in Rockport, WA



based in Boston, MA, Portland, OR, and San Francisco, CA



based in Oak Park, MI



based in Bellingham, WA



based in Marietta, OH



based in Baltimore, MD operating statewide





based in Custer, WI opprating throughout WI, MN, IL & IA



based in Griffith, IN operating in WI, MN, IL, OH, MI & IN



based in MT

## **Muljadi LLC**

based in Auburn, AL operating globally



based in Washington, DC





based in Burlington, VT, Ligonier, PA, Wolf Point, MT, Portland, OR, and operating nationwide



#### New Roots Energy

based in Portland, OR



based in Ransomville, NY



#### Northern POWER SYSTEMS

based in Montpelier, VT and Italy, operating globally



based in Stevensville, MT





based in Salinda, CO



based in Norman, OK



based in Columbus, OH



based in Norman, OK



based in Monroe, WI

#### **Oxbridge Energy**

based in Colorado Springs, CO

## Pacific Coast Renewables LLC

based in Tacoma, WA

#### Pacific Rim Construction

based in Mateca, CA also operating in Solvang, CA



based in Los Angeles, CA

## PECOS WIND POWER

based in Somerville, MA and Neodesha, KS



#### PHILADELPHIA SOLAR ENERGY ASSOCIATION

based in Philadelphia, PA

based in San Luis Obispo, CA

## primusaerospace

based in Lakewood, CO and operating globally

## primuswindpower

based in Lakewood, CO and Flagstaff, AZ operating globally

## Priority Pump & Supply

based in Odessa, TX



based in Tucson, AZ



based in Coraopolis, PA

## Rawlings Power

based in Othello, WA

## Real Change LLC

based in Moscow, ID



based in Lawrenceville, GA operating nationally



based in Fairbanks, AK



based in Stevensville, MT servicing Missoula and the region



based in Anchorage, AK operating statewide



based in Carver, MN

#### Renewable Energy Engineering

based in Flagstaff, AZ



based in East Hampton, NY





based in Salinda, CO



based in Portland, OR operating in WA, ID, and MT



based in Pampa, TX



based in VA, CO & MN operating across the U.S.

## **RIC Enterprises**

Creating Pathways to a Brighter Future based in Bremerton, WA

Ridgewind Engineering based in Vershire, VT



based in Colorado Springs, CO



based in Portland, OR and operating in MN



based in Houston, TX and operating globally

#### Sagrillo Power & Light

based in Forestville, WI



Environmental Services

based in Portland, OR, Seattle, WA, and Tempe, AZ



based in Greater Los Angeles, CA



based in Scotland and Odessa, TX

SELF-RELIANCE based in North Falmouth, MA



Seminole Financial Services, LLC

based in Belleair Bluffs, FL operating across the U.S.



SKY-ANDS RENEWABLE

based in Hampton, NJ



based in Everson, WA





based in Lawrenceville, GA, and operating in MD & NC



based in Seattle, WA and operating across NW



based in East Dorset, VT



based in Arlington, VA, with projects throughout U.S.

## STORKE, LLC

based in Springwater, NY and operating globally



based in Red Lodge, MT



based in Boulder, CO

## The WindWay

based in Wilmette, IL operation in WI, IN and MI



TDIAD

Recycling and Energy

based in Tonawanda, NY



based in Spencer, IA



based in Austin, TX



based in Oak Hills, CA

## **mCloud**

Universal mCloud Corp. based in Vancouver, BC and Denver, CO operating across U.S.



Valler Drones

based in Norwood, NY



based in Burlington, VT



based in UK operating in NY and RI

#### Vermont Green Energy Systems

based in East Middlebury, VT, and works in NH, ME, MA, NY



based in Madison, WI

## Mnd Advisors Team

based in Broomfield, CO and operating globally



based in Lancaster, PA

## **Wind**Harvest

Wind Harvest International based in Sacramento, CA; operating across CA and in TX, NE, WA, NY, & MT



based in Jamaica, IA with projects across the U.S.





#### Windsine

based in southwest WI





based in Coraopolis, PA and operating globally



based in Minneapolis, MN operating nationally



based in Spanish Fork, UT and Baltimore, MD



based in Decorah, IA operating across Winneshiek County



based in EU, operating in U.S.

## **XFLOW** ENERGY based in Seattle, WA

Xiá Analytics, LLC based in Washington, DC



based in Piscataway, NJ and operating nationwide



based in Cleveland, OH operating statewide and in IL, NY, PA, MI, IN, WV, KY



based in New Holland, PA