March 29, 2023

The Honorable Chuck Fleischmann
Energy & Water Appropriations
U.S. House of Representatives
Washington, DC 20515

The Honorable Dianne Feinstein
Energy & Water Appropriations
U.S. Senate
Washington, DC 20510

The Honorable Marcy Kaptur
Energy & Water Appropriations
U.S. House of Representatives
Washington, DC 20515

The Honorable John Kennedy
Energy & Water Appropriations
U.S. Senate
Washington, DC 20510

Dear Leadership of the House and Senate Appropriations Subcommittees on Energy and Water Development:

I am writing on behalf of the 50+ businesses, trade associations, nonprofits and other organizations undersigned to request **robust funding for Fiscal Year 2024 Energy and Water Appropriations for the several programs pertaining to combined heat and power (CHP) technology within the Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE)**. CHP is the most efficient way to produce both electrical and thermal energy, saves consumers money, increases economic competitiveness, strengthens our nation's energy security, and reduces harmful emissions by increasing the adoption of clean fuels such as renewable natural gas and hydrogen.

The Energy Efficiency and Renewable Energy FY24 Congressional Justification (DOE FY2024 Budget Request Vol. 4 EERE) provides funding under the Advanced Materials and Manufacturing Technologies Office (AMMTO) and Industrial Efficiency & Decarbonization Office (IEDO) that the undersigned fully support including:

- **$58,000,000** in FY24 funding for the *Technical Assistance and Workforce Development* subprogram of IEDO which states the "increase will support the expansion of the CHP TAP program into the Onsite Energy TAP program, which expands technical assistance beyond CHP systems to other types of onsite energy systems, with a focus on renewable thermal technologies." (p. 167)
- **$20,000,000** in FY24 funding for the *Enabling Technologies for Low Carbon Fuels and Feedstocks* activity under the Cross-Sector Technologies subprogram of IEDO which states "decarbonized combined heat and power: RD&D and technical assistance for hydrogen and renewably fueled CHP for industry." (p. 165)
- **$35,000,000** in FY24 funding for the *High Performance Materials* activity under the Next-Generation Materials & Processes subprogram of AMMTO which states "in support of economy-wide decarbonization, fund R&D materials with high thermal and/or electrical

conductivity with a broad range of applications including motors, CHP systems, and waste heat recovery." (p. 148)

Technical Assistance and Workforce Development Justification – $58,000,000

For nearly two decades, DOE has supported a regional network of technical assistance providers, known as the CHP Technical Assistance Partnerships (CHP TAPs). The CHP TAPs play a critical role in transforming the market for CHP, waste heat to power, and district energy technologies throughout the United States. To meet the evolving needs in the industrial sector, IEDO is initiating a broader TAP program with the goal of providing similar services for a wider range of technologies that include renewable energy and storage through a new Onsite Energy TAP Program.

In FY22 the House and Senate both recommended not less than $13,000,000 in funding to provide ongoing support for the CHP TAPs and related CHP activities (Division D – Energy & Water Development Statement FY22, p. 45), and in FY23 the House and Senate both recommended up to $15,000,000 in funding to provide ongoing support for the CHP TAPs and related CHP activities (Division D – Energy & Water Development Statement FY23, p. 58)

To maintain consistent with prior years funding levels, not only do we fully support the FY24 funding request of $58,000,000 for the Technical Assistance and Workforce Development program, but **we strongly urge the Energy and Water Appropriations Subcommittee to provide not less than $13,000,000 in FY24 funding to support CHP-related activities within the Onsite Energy TAPs program.**

With robust FY24 funding, the Onsite Energy TAPs program would enhance engagement with policymakers, utilities, and other key stakeholders to accelerate pathways for integration of onsite energy technologies and provide further support to accelerate the transition to decarbonized fuels and improve facility resilience against increased grid disruptions.

Additional research, development and analysis should focus on resiliency benefits for critical infrastructure: assessing the market for onsite energy technologies deployment at facilities including hospitals and nursing homes, colleges and universities, military bases, multi-family buildings, schools, food processing and distribution facilities, wastewater treatment plants, lodging, police and fire stations, prisons, supermarkets, pharmaceutical plants, airports, data centers, and critical manufacturing facilities. The program should also expand upon the March 2016 DOE Combined Heat and Power Technical Potential in the U.S. Report and assess the technical potential of CHP use with clean fuel sources, identifying and analyzing both the resource location of clean fuel sources and the demand for onsite clean energy technologies at industrial and commercial facilities.

We have benefited from this valuable program in its current form as the CHP TAPs and support its continuation and expansion at the FY24 EERE funding level to cover other clean onsite energy technologies to ensure that end users save money, reduce their energy use, lower overall emissions, and increase their reliability and resiliency in the face of extreme weather events that may compromise the grid.

Enabling Technologies for Low Carbon Fuels and Feedstocks Justification – $20,000,000

In September 2022 DOE published its Industrial Decarbonization Roadmap, a comprehensive report identifying pathways to significantly reduce industrial emissions in American manufacturing and identified low carbon fuels and feedstocks as one of the four key pillars for decarbonization. Within the report, DOE explicitly mentions the role CHP can play in achieving significant decarbonization (DOE Industrial Decarbonization Roadmap, p. 14) including:

- “CHP systems utilizing clean fuel sources can enhance energy security and resilience for industrials and distributed microgrids. The use of nuclear energy for electricity and heat, renewable and synthetic fuels, and clean sources of energy as the prime movers for CHP systems can avoid the use of fossil fuels, which will support the integration of CHP into a fully decarbonized energy economy."
- "CHP has long used digester and biogas as fuel sources and systems deployed today can operate on increasing percentages of RNG as availability increases."
- "Engine and gas turbine manufacturers are currently testing and operating CHP systems on high percentage hydrogen fuels, in preparation for increasing use of RNG and hydrogen in the future."
- "RNG and hydrogen-fueled CHP systems can be a long-term path to decarbonizing industrial thermal processes resistant to electrification because of technology or cost barriers, and for critical operations where dispatchable onsite power is needed for resilience and reliability."

With robust FY24 funding, the enabling technologies for low carbon fuels and feedstocks activity under the Cross-Sector Technologies subprogram of IEDO would accelerate the transition to CHP utilization of decarbonized fuels by supporting further research and development in the following areas:

Decarbonized fuels.

- Biomethane and renewable natural gas (RNG)
    - Assess the biomethane potential for CHP for both direct use applications and for pipeline quality RNG.
    - Evaluate the potential for CHP in controlled environment agriculture greenhouses with CO_2 recovery for crop growth.
- Green hydrogen, blue hydrogen

- Analysis of production, storage, and transportation capabilities, including utilization of existing gas pipeline infrastructure.
- Assess the state of hydrogen fuel capability of CHP prime movers and identify ongoing research activities including the general nature of the research and predicted dates for the ability to run on 100% hydrogen.

High Performance Materials Justification – $35,000,000

With robust FY24 funding, the high-performance materials activity within the Next-Generation Materials and Processes subprogram of AMMTO will support materials with improved performance necessary for decarbonization and clean energy development. Funding for RD&D will enable advancements high conductivity metals, and high-strength and low-weight materials, and support for composite materials for clean energy applications including CHP and waste heat recovery systems. Additionally, funding should be used to focus on developing materials used in extreme or harsh conditions, with a focus on high temperature service environments required for decarbonized heat, thermal storage, and other clean energy applications.

Conclusion

We urge that the House and Senate Energy and Water Appropriations Subcommittees continue to support these funding levels for DOE's efforts to help businesses, developers, end users, and other interested parties identify opportunities and overcome barriers to CHP and other onsite energy technologies deployment and to make American manufacturers more competitive.

Respectfully,

2G Energy Inc.
AB Energy USA
ACOGEN
Alturus
Alumina Energy LLC
American EC Power Inc.
American Gas Association
Array Industries
BROAD U.S.A. Inc.
Capstone Green Energy
Center for Sustainable Energy
CHP-Funder.com
Clarke Energy
Cogen Power Technologies
Combined Heat and Power Alliance
Dalkia Aegis
DCL America
DE Solutions Inc.
Delve Energy Group
DT Energy Consultants
Empire Gas Company
Energy Solutions
Force Energy Systems Inc.
HCS Group Inc.
Healthy Environmental Alliance of Utah
Heat is Power Association
HFA-AE
HFT Inc.
Industrial Builders Inc.
INNIO Jenbacher North America LLC
International District Energy Association
Kanin Energy, Inc.

Kelly Generator & Equipment, Inc.
Kraft Power / Energy Systems
Lathrop Trotter
Licata Energy & Environmental Consultants
Lima Company
Martin Energy Group
Midwest Energy Efficiency Alliance
Metco Engineering, Inc.
Moser Energy Systems
National Fuel Gas Company
Northeast-Western Energy Systems
Ormat Technologies
Sheet Metal and Air Conditioning
Contractors National Association
Sterling Energy Group
Supercritical Power Solutions Inc.
Tedom USA, Inc.
Turbine Inlet Cooling Association
Unison Energy LLC
Washington Gas and Light Company
White Harvest Energy
World Cogeneration Day
Yanmar America