



State Energy Offices:
*Opportunities to
Advance Systems
Efficiency*



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About NASEO



- Formed by the states 1986
- Membership includes the 56 Governor-designated State Energy Directors and Offices from each state and territory, as well as private sector affiliates
- Advocates on behalf of the State Energy Offices with Congress, the Administration, federal agencies, and private-sector organizations
- Serves as a resource for and about innovative state energy policies in order to support State Energy Offices in advising and informing their governors and legislatures
- Facilitates peer-to-peer policy learning and adoption across states, with a particular focus on clean energy and economic development
- Works through NASEO's committee and regional structures to facilitate peer learning across states and to enable engagement of the states with private sector advocates, experts, and investors
- Committees and Programs: Government Affairs; Buildings; Transportation; Fuels and Grid; Energy Security and Resilience; Financing; State Energy Policy Planning; Energy-Environment

+ About the 56 State and Territory Energy Offices

- Advise governors and legislatures and lead statewide energy policy planning on behalf of the governors in most states
- Inform state electricity and environmental regulators *and* intervene in regulatory electricity proceedings on behalf of governors
- Advance practical energy efficiency and renewable energy policies and support energy technology research, demonstration, and deployment to transform markets
- Oversee billions of dollars in state-based clean energy funding and catalyze billions more in private sector clean energy investment
- Partner with the private sector to accelerate clean energy-related economic development and enhance environmental quality



NASEO's Affiliates

A robust and engaged network of +70 private-sector partners, including representatives from business, trade associations, nonprofit organizations, educational institutions, laboratories, and government.



+ Systems Approach Benefits to States

- Cost savings and improved performance in state/public buildings
 - Energy and water savings
 - O&M benefits
 - Occupant satisfaction
- Energy reliability, resilience, and security
 - Facility/building resilience
 - Electric and natural gas system reliability—reduce grid and supply-side stresses; distributed resources as asset
- Environmental benefits—avoided emissions; water, resource efficiency
- Economic development and productivity
 - Improve building stock, more productive facilities
 - Business and workforce development



Richardsville ES (Warren Co., KY) -- net-zero

+ Opportunities to Support Systems Approach

- Needs and opportunities for:
 - Raising awareness of and educating about System Efficiency approaches
 - What it is and its benefits
 - Outreach, convenings
 - Training and technical assistance
 - Technical aspects and administrative/business/procurement aspects
 - System Efficiency in policy and planning
 - State properties
 - Other public sector
 - Broader economy
 - Utility commission



District Energy St. Paul (MN)

+ Opportunities to Support Systems Approach

- Raising awareness of Systems Efficiency approaches
 - Inform State Energy Offices
 - NASEO Buildings Committee
 - NASEO meetings/events
 - Other multi/cross-state outreach
 - Work with SEOs to inform state and public agencies
 - Governors and legislators
 - Financial agencies
 - General services, housing authorities, colleges/universities, education departments, corrections, etc.
 - Localities, K-12 schools, etc.
 - Utility commissions
 - State Energy Plans
 - Opportunity to highlight



NREL Research Support Facility

+ Opportunities to Support Systems Approach

- Educating about Systems Efficiency approaches
 - Training, tools, and technical assistance
 - State agencies and authorities
 - Localities and K-12 school divisions
 - Developers of state bonded or licensed facilities
 - Energy service companies (ESCOs), contractors, trades
 - Technical (design, engineering, construction, installation, O&M) aspects and administrative, business, procurement aspects
- What training and tools are available?
- What training and tools will be developed? Who will develop?
- Who will provide training and tools? Who will pay?



Greywater recycling system, Kiowa Co. Memorial Hospital, Greensburg, KS [NREL image]

+ Opportunities to Support Systems Approach

- System Efficiency in policy and planning
 - State properties – lead-by-example and procurement (and perhaps other public sector, state bonded, and state licensed buildings)
 - Building performance standards and targets
 - E.g., Minnesota Sustainable Buildings 2030
 - Benchmarking and disclosure – can that impel systems approach?
 - Procurement vehicles:
 - Integrated project delivery, integrated design approaches
 - Can energy savings performance contracting (ESPC) advance systems approach?
 - State/public buildings as test beds?
 - Federal examples--
 - GSA Green Proving Ground
 - DoD ESTCP
 - DoD net-zero pilots

Bosch DC Microgrid Project: EPC 14-053

DOD Project – DC Microgrid at Fort Bragg, NC



- **Features at Hercules Fitness Center**
 - Grid resiliency
 - Energy efficiency
 - Higher renewable energy utilization
- **System Details:**
 - 15 KW DC Solar array
 - 44 DC induction lights
 - 4 DC fans
 - 100 KW Li-Ion Energy Storage System

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+ Opportunities to Support Systems Approach

- System Efficiency in policy and planning
 - Broader economy
 - Ways to enhance systems approach in building codes?
 - Work with utility commissions (and customer-owned power—public power and co-ops)
 - Customer benefits, utility system benefits (reliability, resilience)
 - Efficiency, distributed generation, demand response, storage as grid resources
 - Tools, training, resources for designers, architects, engineers, trades
 - State and/or local legislation required for:
 - Benchmarking and disclosure policies
 - Tax and other fiscal incentives
 - Local zoning incentives
 - State energy plan
 - Findings, recommendations affect policy





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Thank You

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