



Municipal Energy Strategies

Energy Action Plans (EAPs) provide strategies that help the community reduce energy consumption and reach greenhouse gas emission reduction targets. They do this through tailored strategies that assist city governments in reducing energy consumption and emissions in their own operations. Cities can use these strategies as an opportunity to lead by example and champion sustainability efforts.

Strategies to reduce energy consumption and associated emissions in government operations can be quite different from community wide energy and emission reduction strategies, as cities have more oversight over their own operations. For example, EAPs can recommend that cities hire a sustainability manager or initiate a green team to implement strategies and rollout city projects for energy efficiency, conservation, and renewable energy programs.

Energy Efficiency

Identifying strategies to make municipal facilities more energy efficient is often one of the first steps that a city takes in their energy planning process. These upgrades can help save thousands of dollars each year in operating expenses. EAPs are useful in laying out the priorities and steps that cities can take in updating their specific facilities.

EAP strategies often begin with analyzing the energy that the cities use in their operations. One way to analyze energy consumption is to benchmark city facilities, a process that compares relative building performance and usage of similar facilities in similar climates. Buildings that receive low “benchmarking scores” may be priorities for energy efficiency upgrades. More detailed energy audits are also used in EAPs to identify and compare specific energy efficiency measures such as upfront costs and expected return on investment. EAPs that focus on municipal operations often prioritize specific equipment replacement and provide a roadmap for City facility managers. These upgrades frequently start with lighting and become more technical depending on the city’s facilities. In addition, the plans identify possible funding sources for the projects, including grants, utility rebates, and other cost saving utility programs, such as “direct install”. Other opportunities for setting energy standards and performance goals for facilities include adopting LEED standards and planning for net-zero facilities.



Energy Conservation

In municipal operations, conserving energy is an attractive approach to reduce energy consumption because it can be implemented at little to no cost. Energy conservation measures include changing hours of equipment operation, regulating building temperature, or installing sensors on lighting to automatically turn off when not in use. These measures may be identified in the energy audits, mentioned above.

Some municipal operations may also be eligible to participate in “demand response” programs offered by the utilities. These provide financial incentives for facilities to reduce energy demand when energy use is at its highest on the electrical grid. Energy conservation in municipal operations can additionally be achieved by education and outreach programs (outlined in EAPs) for city employees. By engaging city employees in the energy conservation goal setting, the city can encourage sustainable behavior on the job.

Alternative Energy

As cities seek to decrease the greenhouse gas emissions associated with their own operations, many choose to offset their energy use with on-site renewable energy projects. These projects vary in scale from small solar projects to large scale electricity generation at waste and wastewater facilities. EAPs can be used to plan for the investment and implementation of renewable energy projects throughout a city's municipal operations. For example, some EAPs include site assessments for solar readiness on City buildings. These analyses may also include pricing assessments and projected savings on electrical bills over time.

Municipal Battery Storage

Battery storage is a vital resource for an emission free future. Batteries can be paired with solar panels or wind turbines to store energy during times of variability, like when the sun isn't shining or wind dies down. EAPs may include goals or sites for future battery deployment, as battery costs decline and as electricity rates make energy storage more cost effective. Future EAP updates will include more strategies that promote battery adoption as energy storage becomes increasingly necessary to support grid reliability and renewable energy development.