

**BOARD OF SUPERVISORS
ENVIRONMENTAL SUMMIT
ACTION ITEM**

SUBJECT: Environment and Energy Work Plan

ELECTION DISTRICT(S): Countywide

CRITICAL ACTION DATE: At the pleasure of the Board

STAFF CONTACT(S): Marc Aveni, General Services
Ernest N. Brown, General Services

PURPOSE: To seek the Board of Supervisors' (Board) endorsement of the proposed Environment and Energy Work Plan (Work Plan) for FY 2023 to be based on existing resources as well as a forecast of related actions that may follow in future budget requests. The Work Plan is based on Board direction in previous actions, input from the Environmental Commission (Commission), public input, and further evaluation by staff. It also includes an update on the County Energy Strategy directed by the Board (9-0) on December 1, 2020.

RECOMMENDATION(S): Staff recommends that the Board endorse the Work Plan for FY 2023, to be managed by the Department of General Services.

BACKGROUND: At the Board Business Meeting on April 21, 2020, the Board approved (9-0) a [County Environmental Initiatives Review to Recognize Earth Day](#), which directed staff to prepare an information item reviewing current and past environmental initiatives, strategies and actions and to provide recommendations. At the December 1, 2020, Board Business Meeting, staff presented the [County Environmental Initiatives Review](#). At this time, the Board approved (9-0) a number of staff environmental planning recommendations including establishment of the Commission. At the February 2, 2021, Board Business Meeting, the Board adopted (9-0) [Environmental Commission Bylaws](#) that designated the Commission's purpose to be to "advise and make recommendations to the Board on policies and practices dealing with the environment, sustainability and the management of energy."

Specific duties of the Commission assigned in the bylaws include:

1. Identifying issues and proposing recommendations to protect, preserve, conserve and enhance the environment;
2. Advancing environmental justice policies to ensure equity across all populations; especially minority, low-income or historically underserved communities;

3. Acting on priority initiatives identified in the *Loudoun County 2019 General Plan* and the Board's Strategic Plan; and
4. Recommending new initiatives to the Board regarding policies and practices related to the environment, sustainability and the management of energy.

Since July 21, 2021, the Commission has been meeting regularly to fulfill its duties, including holding a [public input session on November 17, 2021](#). As an outcome of these meetings, the Commission recommended focusing activities on five initiatives based on requirements in the bylaws, expertise of the members, discussions with staff, and input from the public. The initiatives, as discussed in more detail below, include:

- Sustainable Energy
- Natural Resources
- Environmental Justice
- Public Engagement
- Government-by-Example

The Commission further recommended priority issues within each of these initiatives for proposed County action. Detailed information on the Commission's investigations can be found in Item 1, Environmental Commission Annual Report.

PROPOSED ACTIVITIES FOR FY 2023 AND BEYOND: Staff considered the Commission's recommended initiatives in the context of available resources, along with other directives from the Board, and identified actions to be prioritized in FY 2023. Staff also considered actions that would be priorities but would require future funding for implementation.

The **Work Plan Table for FY 2023** is included as Attachment 1. For each priority issue, the Work Plan reports the current status of the issue as well as actions to be undertaken by staff with funding from existing FY 2023 appropriations. Staff will be supported in these activities by the Commission. Staff will request feedback from the Board throughout the year as individual action items reach decision-making points.

The Work Plan only contains actions that can be conducted using existing appropriations. A **Future Forecast for FY 2024 and beyond** is included as Attachment 2. Much of the work that might be conducted in FY 2024 will be determined based on the results of FY 2023 activities and further Board direction. However, there are also some actions that staff have identified as priorities at this time, but that cannot be conducted without additional resources and approved funding through future budget cycles. These actions are presented in the Future Forecast for informational purposes. For items determined as priorities for the coming year, staff will come back to the Board during the FY 2024 budget process with requests for resources to complete those tasks.

The Work Plan is structured around the five initiatives and associated priority issues recommended by the Commission. Each of the priority issues in the Work Plan and Future Forecast tables is described in more detail below.

Initiative 1: Sustainable Energy

Sustainable energy includes initiatives such as advancing energy efficiency and renewable energy to support a sustainable future. Sustainable energy is essential to sustainable development. Most sustainable energy efforts focus on reductions in greenhouse gas emissions from fossil fuels through conservation and increased use of renewable energy.

- A. County Energy Strategy:** A high priority activity currently underway in FY 2022 and to be continued in FY 2023 is development of a new County Energy Strategy (Strategy). On December 1, 2020, the Board directed staff to initiate actions to replace or update the existing [2009 Loudoun County Energy Strategy](#). After hosting a [Board Energy Strategies Workshop](#) on September 29, 2021, the County hired a consultant to support the Strategy update by conducting a baseline assessment and projections and then conducting sector specific analysis and providing recommendations. Since that time, staff and the consultant have begun this process and created a County Energy Strategy Draft Goal Framework, presented in Attachment 3. Input has been requested from the Commission and the public and incorporated into planning at several points in this process.

The Framework provides an overview of the structure of the planned Strategy. It incorporates three goal areas that cover two coordinated but distinct sets of recommendations: County government leadership (i.e., Government by Example), stimulating community-wide efforts, and supporting renewable energy development in the County, for which government and community recommendations overlap. Recommendations will contain quantitative and qualitative goals, as well as actions to help the County make progress toward established goals. For each of the goal areas, staff would provide alternative options for the Board to consider. Within each goal, depending on the option selected, specific actions will be defined to achieve that goal.

- B. Community Choice Aggregation (CCA)** At the [April 19, 2022 Board Business Meeting](#), the Board directed staff (8-0-1: Buffington absent) to perform further financial analysis to identify costs and potential financial risks and benefits and to investigate legal questions related to the development of Countywide CCA and conduct discussions with Dominion Power representatives regarding the establishment of CCA in Loudoun County. This analysis is underway and further action will be determined by Board input in the future.
- C. Power Purchase Agreements:** At the April 19, 2022, Board Business Meeting, the Board also directed staff to proceed with a Request for Proposals to evaluate Renewable Power Purchase Agreement opportunities on County-owned facilities. This action is underway and further action will be determined by future Board input.

D. Solar Development as Principal Use: On April 20, 2021, the Board approved (7-2: Buffington and Kershner opposed) a [motion on establishing solar farms in Loudoun County](#). The motion directed staff to develop a process for incorporating solar farms and Commission, Rural Economic Development Council input into the Zoning Ordinance Rewrite (ZOR) (without delay of the ZOR project), to include consideration of revisions to ordinances outside of the ZOR as may be necessary to address solar farms in Loudoun County. The Board also directed staff to develop an interim policy and process for addressing solar farm inquiries from property owners and/or businesses until such time as the Zoning Ordinance and any other applicable ordinances can be amended and to bring the proposed interim policy and process back to the Board for consideration.

On May 3, 2022, the Board approved (8-1: Buffington opposed) a [Department of Planning and Zoning \(DPZ\) Work Plan](#) that continued deferral of work on the solar zoning initiative until a further time, with the estimated completion date to be determined. At this time, DPZ reported that staff and the Commission were working on research and regulatory revisions focused on commercial and residential solar array and to-date, the Board had adopted a [Zoning Ordinance Amendment on Ground-Mounted Solar Energy Generating Facilities](#) to clarify existing regulations, and the draft ZOR includes new terms, definitions, and performance standards for solar arrays. DPZ stated that future Community Planning efforts to conduct public outreach sessions and a potential Comprehensive Plan Amendment are anticipated.

E. Waste Reuse: At the [March 15, 2022 Board Business Meeting](#), the Board directed (9-0) staff to prepare a draft scope of work for a Request for Information on waste reuse technologies such as green hydrogen and potential public-private partnerships that the County could participate in. At the [June 21, 2022 Board Business Meeting](#), the Board directed (8-0-1: Kershner absent) staff to proceed with a task order to support the Request For Information process for Alternative Energy Supply Options. Development of this information is underway and further action will be determined by future Board input.

F. Solar Development as Accessory Use: Generation of solar energy as an accessory use to serve other uses on the same lot can be an important option for increasing renewable energy. The County Zoning Ordinance currently allows both rooftop solar panels and ground-mounted solar facilities on residential, commercial, and industrial lots when the solar energy will serve only the uses located on the same lot. This was recently clarified in the Zoning Amendment approved by the Board (7-0-2: Briskman and Letourneau absent) on April 13, 2022. Some residences and homeowner's associations may be interested in installing solar panels but unclear as to their rights and responsibilities. Staff and the Commission can provide education and outreach to homeowners and other users to make use of solar energy easier to access.

For other potential accessory uses of solar energy, (e.g., rooftop solar panels on multifamily housing) there may be other complications such as state requirements or utility fees. Staff and

the Commission can identify obstacles and suggest ways in which the County may be able to support expanded accessory uses.

G. Green Bank: A green bank is a financial institution that is capitalized with public funding. It leverages this funding with private lenders to provide financing for underserved clean energy projects. Green banks can provide residents and businesses with reduced rates, extended loan times, and credit access for projects that may otherwise have a difficult time finding lenders. In 2021, Virginia passed a state law allowing localities to establish green banks to promote investment in and provide financing for clean energy technologies. No Virginia localities have yet implemented green banks, although other counties including Fairfax and Arlington are also exploring options. Montgomery County, MD, and Washington, DC, have implemented green banks.

The first step in exploring green bank options for Loudoun County would be to conduct a feasibility study that would include a market assessment and consideration of possible governance structures and levels of initial investment. A feasibility study would require appropriation of new funding and is included as a potential action in the Future Forecast.

Initiative 2: Natural Resources

Loudoun County's Comprehensive Plan includes a Vision to "protect and enhance the County's natural, environmental, and heritage resources, which are fundamental to the health, safety, welfare, sustainability, and enjoyment of current and future generations." Natural and environmental resources include major rivers, stream corridors, floodplains, wetlands, steep slopes, ridges and mountainsides, forested and vegetative landscapes, geologic and soil resources, important plant and wildlife habitats, and scenic areas and corridors.

A. Soil and Water Conservation Projects in the Floodplain: To remain in compliance with Federal Emergency Management Agency (FEMA) regulations, existing County ordinances require that all development within the Floodplain Overlay District (FOD) provide an engineering analysis. As riparian buffer plantings and tree plantings projects are considered by FEMA to fall under development, any of these projects located within the FOD must have an engineering analysis. In some cases, the cost to prepare and provide this engineering analysis could be more than the cost of the entire project.

These requirements create challenges for certain Loudoun Soil and Water Conservation District (LSWCD) projects. At Board direction, County staff have multiple efforts underway to address some of these challenges. Following direction from the [April 19, 2022 Board Business Meeting](#), staff are working to: 1) determine from FEMA if it is possible to distinguish between the flood fringe and floodway; 2) analyze how other jurisdictions similar to the County are implementing their floodplain ordinances; and 3) pursue a legislative change to the regulation or code at the federal level to address LSWCD projects in the FOD. In addition, based on further direction from the [June 21, 2022 Board Business Meeting](#), staff will be including as part of the FY 2024 budget development process a proposal to allocate up to

\$200,000 for the LSWCD, for the purpose of funding engineering studies required for conservation practices implemented within the FOD.

- B. Watershed Management Planning:** Watershed management planning is a process that assesses current and future watershed conditions in a specific watershed to identify problems and develop projects and actions to correct the problems. Over the past 15 years, Loudoun County watershed management planning has resulted in several investigations, reports and plans, including two final Watershed Management Plans (WMPs), one for the Upper Broad Run watershed and one for the Western Hills watershed. An initial step in moving ahead with the County's planning to date is to make all of the materials publicly available. This would include presenting the Western Hills WMP to the Board so that it could be shared with the public and posting all of the other existing reports and plans in a single, easily accessible online location.

Further steps in watershed management would be to evaluate projects listed in the existing plans and identify the ones with the greatest potential benefits. Types of potential projects range from promoting watershed stewardship to physical stream restoration. They could be of interest for direct County implementation funded by future budget requests or by external partners, such as non-profits or HOAs, funded by federal grants or private funding sources and with County technical assistance. In the future, a new WMP for other watersheds in the County could be conducted.

In the County's current arrangement, these tasks of selecting and implementing watershed management projects would be shared between multiple departments, as are other County water quality protection duties. Staff recommends that developing a more comprehensive watershed management planning approach would allow the County to fulfill its responsibilities most effectively. In FY 2023, staff would build a collaborative team across multiple departments to develop a structure for such a program to potentially be launched in FY 2024 after bringing to the Board for approval.

- C. Tree Protection:** The tree canopy in Loudoun County is a diverse mix of forest types and tree species. Current threats to the canopy are development pressures, invasive species, excessive deer browse pressure, and lack of forest management. One proposed strategy to sustain tree populations is to promote private tree planting and improve maintenance through public engagement activities such as initiating a Plant-a-Tree pledge and making tree protection information more easily available online.

Policy actions could also support tree protection. The FY 2023 Work Plan includes evaluating options for development incentives and zoning amendments. Development incentives would be ways to encourage tree protection without requiring it through ordinances. Updates to the current tree ordinances are currently under consideration in the ZOR, including potentially applying existing requirements to new zones. However, recent changes in the state code have expanded options for local tree preservation regulations (§15.2-961.4). In the coming year, staff can evaluate whether an amendment to use these options would benefit the County, and

if so, can act when resources are available. Finally, a better understanding of current tree resources would help inform decision making. Resources to implement a tree canopy baseline study could be requested in future budget cycles.

- D. Wildlife Corridors:** The Code of Virginia defines a “wildlife corridor” as “an area connecting fragmented wildlife habitats separated by human activities or infrastructure” (§29.1-578). Wildlife corridors protect ecosystems by allowing for the safe movement of wildlife and fostering biodiversity. Corridors can also benefit the public by reducing wildlife-vehicle collisions, for which Loudoun County is a high-risk area, having the [seventh highest animal strike frequency](#) nationally. Wildlife corridors cover a range of scales, regionally allowing for wildlife movement across the County, or on a more local level, bypassing an individual road or other barrier.

The County has already implemented some steps to protect wildlife corridors in its plan for the Linear Parks and Trails System, which considers wildlife in its design guidelines. There are a number of further actions the County could take to protect wildlife corridors. As staff has determined that this is not of highest priority for existing resources, these actions are included in the Future Forecast. The first step would be to define the objectives of such an effort, in order to focus resources appropriately. Factors that may be considered in prioritization could include level of conservation need, contribution to ecosystem health, the potential to have a beneficial impact on the widest number of species, or economic benefits. Identifying wildlife corridors is a next necessary step in developing a plan to protect them. The County can consider ongoing analyses by the state and other regional entities as well as consulting land use planners and wildlife biologists to identify priority areas for habitat connectivity.

Improving wildlife crossing on roads is an action that provides the benefit of reducing wildlife-vehicle collisions along with the other benefits of wildlife corridors. Building new overpasses or underpasses is not the only means of improving crossings; retrofitting existing structures such as culverts and adding fencing can provide more cost-effective mitigation. Considering the identified essential wildlife corridors, Loudoun County can select roads with the greatest need of attention, in coordination with the Countywide Transportation Plan. Loudoun County can coordinate with the Virginia Department of Transportation (VDOT) to identify ways in which local action can support improvement of wildlife crossings on the roads with the greatest risk, as these are primarily managed by VDOT.

Larger-scale future efforts to protect wildlife corridors could include promoting the acquisition of conservation easements and implementing development design strategies ([Loudoun County 2019 General Action Plan](#), Chapter 3, Action 6.2.A).

In the interim, until more resources are available, the County can track ongoing actions at state agencies as they implement the state Wildlife Corridor Action Plan passed by the General Assembly in 2020 ([§29.1-579](#)).

E. Environmental Information Hub: The County holds a great deal of information about environmental conditions and practices, but it is not always easy for external parties to access. At one level, this includes reports and other types of documents that would be of interest to the public but that are hard to find or else not obvious to look for. An initial action would be to identify overlap between public interests and existing materials and consider ways to provide easier access. The intent is to not be redundant with existing libraries and tools but to inform users of available resources and provide links from a single hub.

At a more in-depth level, there is a lot of existing data that is not already compiled in reports or formatted for access but that may be of interest if presented appropriately. Staff and the Commission will discuss available information and possible opportunities to improve user-friendly access to environmental data of interest to the general public. This could include open-source data and data from the state or other external organizations. First steps in this process would be to develop a scope of work for information and data to be made available and decide where on the County website it would be located. The goal for FY 2023 would be to identify and prioritize opportunities. Any data compilation, presentation, or analysis would require additional resources that may be requested in future budget cycles, as would development of any new access tools, should it be determined to be a potential benefit.

An environmental information portal could be useful as a platform for energy information as well as natural resources information. Information collected or identified for other sections of this Work Plan, such as the County Energy Strategy and for county facilities energy use, could be integrated into an environmental information hub.

Initiative 3: Energy Equity and Environmental Justice

A. Environmental Justice: The Environmental Commission Bylaws specifically state that a duty of the Commission is “advancing environmental justice policies to ensure equity across all populations.” [Virginia Code §2.2-234](#) defines environmental justice as the “fair treatment and meaningful involvement of every person, regardless of race, color, national origin, income, faith, or disability, regarding the development, implementation, or enforcement of any environmental law, regulation, or policy.” Environmental justice is an outcome to be considered in all decision making around environmental policy.

Identifying the greatest needs is essential to targeting resources effectively. A first step in advancing environmental justice would be to assess community risks and environmental health impacts to determine where County engagement would be of most value. Conducting an assessment would require resources in future budget cycles, however in FY 2023, staff can initiate conversations with the new state Office of Environmental Justice and with Environmental Protection Agency environmental justice programs that provide assistance to local governments.

B. Energy Equity: For FY 2023, the Work Plan highlights energy equity actions that can be associated with the work being done for the County Energy Strategy. Energy equity is the

utilization of strategies and tools to ensure fair distribution in costs, benefits, and accessibility to affordable energy in a manner that promotes inclusive participation across Loudoun County while also remediating social, economic, and health burdens on those disproportionately harmed by the energy system. In addition to supporting equity across all populations, energy equity efforts can also help meet the County with the overall goal of reducing reliance on fossil fuels.

To advance energy equity among Loudoun residents, the County first needs to develop a framework for action, which would include defining the mission in a way that aligns with the County's overall equity goals and establishing quantitative metrics for success. Sharing information is also important and staff will engage with diverse community organizations and the public to ensure that County energy equity efforts prioritize the needs of greatest importance to targeted communities. Identifying prioritized needs would also provide a basis to develop quantitative metrics to assess progress. Public engagement can also help identify ongoing actions the County can participate in and identify partnerships for potential future action. To date, staff have met with local non-profits such as Habitat for Humanity, National Association for the Advancement of Colored People, and the Chamber of Commerce. Partnerships and projects identified through this process can be implemented using funds requested in future budget cycles.

Initiative 4: Public Engagement

- A. Environmental Excellence Awards:** The Environmental Commission Bylaws define one of the Commission's duties to be "presenting Loudoun County Environmental Excellence Awards annually to individuals, businesses, nonprofit organizations and educators for their leadership on environmental issues." The Commission has developed a plan to present awards in various categories. The plan includes a timeline, a nomination application, and judging criteria, including additional points around a different theme each year (see Attachment 4). The first awards will be presented in April 2023 with a theme of litter prevention, education, and clean up. In the future, awards will then be presented annually in April in conjunction with Earth Day.
- B. Annual Public Forum on Environment and Energy:** Another duty defined by the Bylaws is for the Commission to hold an annual public forum to present a draft of its annual report and engage the public on issues of environmental concern to receive input that will inform future efforts by staff and the Commission. The report is then to be updated to account for public input and presented to the Board. For FY 2022, the Commission held a virtual public meeting on November 17, 2021. As it was the Commission's first year, there was no annual report to present, however the Commission requested input on its list of potential priority issues. Future public forums will be held in May of 2023 and each following year, and the structure and content may be updated based on needs and expectations of the Board.

Initiative 5: Government by Example

A. County Facilities Energy Use: County government operations use a substantial amount of energy, primarily through building electricity and fuel for vehicles. Reducing energy use at County facilities could provide cost savings as well as reduced greenhouse gas emissions. Although County government operations themselves represent a small portion of overall emissions from Loudoun County, by taking action to address its own energy use, County government would set a visible “government by example” precedent for the community to encourage others to act as well. This type of government by example is being considered as part of the County Energy Strategy, as discussed above in Initiative 1, but there are a number of actions that can be initiated in the shorter term, without waiting for completion of a longer-term strategy. Actions include:

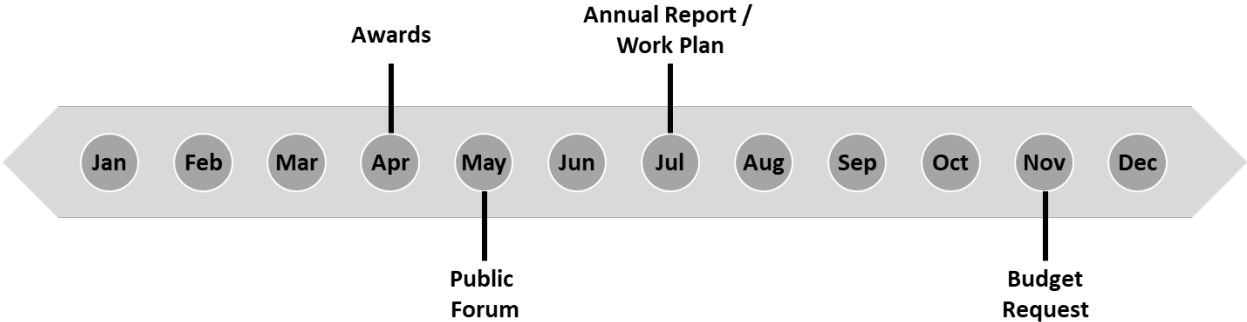
- *Re-establish Employee Energy and Environmental Sustainability Committee (EESC):* The EESC campaign is intended to build a culture of conservation among employees around energy-saving practices in the workplace. The EESC will be re-established with energy champions from each department and charged with finding potential energy savings by educating and encouraging employees.
- *Adopt a Government-by-Example Energy Policy for County building energy usage:* Staff will create an energy policy related to energy usage in County facilities including temperature setting in occupied and unoccupied spaces. Further implementation actions may include installation of programmable thermostats and motion sensitive switches in selected locations and perhaps in the future using building automation systems, considering recommendations in the County Energy Strategy.
- *Develop County facility energy usage hub:* An energy usage hub will store available and relevant County data for ease of community access to see how the County is progressing toward its goal.
- *Work interdepartmentally on issues related to county fleet electric vehicle (EV) deployment and facility charging stations:* The County is in the process of developing an EV Fleet Plan and a revised EV Charging Phasing Plan. These efforts will support short-term actions and become the foundation for important components of the overall County Energy Strategy. These plans will be presented at the September 2022 Finance Government Operations and Economic Development Committee meeting.

ENVIRONMENTAL COMMISSION OPERATIONS

The Commission met first in July 2021 and is in its first year of operation. As such, operational matters have been evolving as implementation has occurred. See Item 1, Environmental Commission Annual Report for more detail about the Commission structure and actions. As the first year is completed, staff and the Commission recommend a consistent timeline for required activities, as discussed below.

Annual Cycle for Public Milestones

The Environmental Commission Bylaws require the Commission to draft an annual report, share the report at a forum to receive public input, and then present the Annual Report and a Work Plan to the Board. In the future, Commission activities will be scheduled around the County budget cycle. The Commission will develop its draft Work Plan to be presented at the Public Forum in May. The Commission will incorporate public feedback into the report and Work Plan to present these documents to the Board in July, at the beginning of the fiscal year. When the Work Plan is approved, staff will work with the Commission’s support to develop resource requests to be addressed in the November budget request. The Commission’s annual presentation of Environmental Excellence Awards, also directed in the Bylaws, will occur in April, to align with Earth Day and raise interest for the Public Forum to be held in May.



FISCAL IMPACT: The Work Plan for FY 2023 is intended to be implemented with existing funds currently appropriated in the FY 2023 Adopted Budget. Future resource needs would be dependent on the outcomes of existing Work Plan items and further direction from the Board on individual action items to be presented throughout the year. Resource needs for future actions would be presented to the Board for consideration during the FY 2024 budget process and/or future budget development cycles.

DRAFT MOTIONS:

1. I move that the Board of Supervisors endorse the Environment and Energy Work Plan for FY 2023 and direct the Department of General Services to implement the County Energy Strategy goal framework, and the Environmental Excellence Awards Program plan, provided as Attachments 1, 3, and 4 to the July 27, 2022, Board of Supervisors Environmental Summit Action Item.

OR

2. I move an alternate motion.

ATTACHMENT(S):

1. Environment and Energy Work Plan Table, FY 2023
2. Environment and Energy Future Forecast, FY 2024 and beyond
3. County Energy Strategy Draft Goal Framework
4. Environmental Excellence Awards Plan

Environment and Energy Work Plan Table FY 2023

Issue	Basis	Dept	Current Status	FY 2023 Actions (Existing Resources)
Initiative 1. Sustainable Energy				
County Energy Strategy (CES)	Board Directed (12/1/20)	DGS	Draft framework presented in this package for Board endorsement	<ul style="list-style-type: none"> Complete CES Report, including factors such as renewable energy, energy efficiency, and transportation (<i>December 2022</i>) Initiate government-by-example items as discussed in Initiative 5 As directed by Board following completion of CES Report
Community Choice Aggregation	Board Directed (12/15/20)	DGS DFB	Board directed staff to conduct further analysis (4/19/22)	<ul style="list-style-type: none"> As directed by Board following financial and legal analysis
Power Purchase Agreements (PPA)	Board Directed (12/15/20)	DGS	Board directed staff to develop RFP to evaluate renewable PPA opportunities at County-owned facilities (4/19/22)	<ul style="list-style-type: none"> As directed by Board following RFP
Solar Regulations (Solar as Principal Use, e.g. Solar Farms)	Board Directed (4/20/21)	DGS DPZ	Specific directive deferred in approved DPZ work plan of May 3, 2022; the draft Zoning Ordinance Rewrite includes new definitions and standards for solar arrays	<ul style="list-style-type: none"> Develop interim process for addressing solar farm inquiries and consider revisions to ordinances outside of the Zoning Ordinance Rewrite Implement process and revisions as directed by Board
Waste Reuse for Renewable Energy	Board Directed (3/15/22)	DGS	Board directed staff to proceed with a task order to support a Request for Information process for Alternative Energy Supply Options (6/21/22)	<ul style="list-style-type: none"> Complete RFI Scope of Work As directed by Board
Solar Regulations (Solar as Accessory Use, e.g. Residential)	General Plan / EC Priority	DGS DPZ B&D	Some aspects in Zoning Ordinance Rewrite	<ul style="list-style-type: none"> Provide guidance to homeowners about solar energy requirements

Attachment 1

Environment and Energy Work Plan Table FY 2023

Issue	Basis	Dept	Current Status	FY 2023 Actions (Existing Resources)
				<ul style="list-style-type: none"> Identify opportunities and obstacles for use of solar energy, for example through community solar partnerships
Green Bank	General Plan / EC Priority	DGS DFB	EC discussion and review of state law	<ul style="list-style-type: none"> Track green bank activity in Region
Initiative 2. Natural Resources				
Conservation Projects in the Floodplain	Board Directed (1/4/22)	DGS B&D	Multiple actions underway at Board direction (4/19/22 and 6/21/22)	<ul style="list-style-type: none"> Confirm requirements with FEMA Analyze practices in other jurisdictions Pursue legislative change at the federal level In the FY 2024 budget development process, consider a proposal for recurrent funding to Loudoun Soil and Water Conservation District
Watershed Management Plans (WMPs)	General Plan / EC Priority	DGS B&D DPZ	Two final WMPs (Western Hills & Upper Broad Run)	<ul style="list-style-type: none"> Present Western Hills WMP to Board Public access to all watershed management planning documents Evaluate WMP project lists and select projects for action Identify agencies and other potential partners for implementation and possible expanded program efforts Build collaborative team to develop structure for integrated watershed management implementation program
Tree Protection	General Plan / EC Priority	DGS B&D DPZ	Managed through Zoning Ordinance; some aspects under consideration in Zoning Ordinance Rewrite	<ul style="list-style-type: none"> Initiate Loudoun County Plant-a-Tree Pledge Expand public education

Environment and Energy Work Plan Table FY 2023

Issue	Basis	Dept	Current Status	FY 2023 Actions (Existing Resources)
				<ul style="list-style-type: none"> Explore options to incentivize tree preservation during development Evaluate option of Zoning Ordinance amendment under new Virginia code
Wildlife Corridors	General Plan / EC Priority	DGS B&D DPZ	Managed through Zoning Ordinance and Land Subdivision and Development Ordinance	<ul style="list-style-type: none"> Track Virginia Department of Wildlife Resources activity on Wildlife Corridor Action Plan and establish connection with state agency
Environment and Energy Information Hub	General Plan / EC Priority	DGS B&D OMAGI OPA	Great deal of information on website but not always easy for external parties to access	<ul style="list-style-type: none"> Define objective for information sharing Organize existing online documents for greater public access Identify data areas of interest and existing data sources Identify priorities for future data collection
Initiative 3. Environmental Justice				
Environmental Justice (General)	Bylaws	DGS OEI	DGS conducting discussions with County Equity Officer	<ul style="list-style-type: none"> Initiate conversations with new state Office of Environmental Justice and Environmental Protection Agency programs for local governments
Energy Equity	General Plan / EC Priority	DGS OEI OPA	DGS conducting discussions with County Equity Officer and initiating public outreach	<ul style="list-style-type: none"> Develop framework, including a definition of energy equity, identified areas of opportunity, and quantifiable metrics Share information on equity website Engage with local groups to identify unmet needs and opportunities Propose projects and partnerships to address unmet needs

Environment and Energy Work Plan Table FY 2023

Issue	Basis	Dept	Current Status	FY 2023 Actions (Existing Resources)
Initiative 4. Public Engagement				
Environmental Excellence Awards	Bylaws	DGS OPA	Draft plan presented in this package for Board endorsement	<ul style="list-style-type: none"> • Present Awards (<i>April 2023</i>)
Public Forum on Environment and Energy	Bylaws	DGS OPA	Hosted general public input session in November 2021	<ul style="list-style-type: none"> • Hold forum (<i>May 2023</i>)
Initiative 5. Government by Example				
County Facilities Energy Use (<i>in parallel with County Energy Strategy</i>)	Board Directed (12/1/20)	DGS DTCI PRCS	Under discussion as part of County Energy Strategy process. Presented in this package as part of draft CES framework	<ul style="list-style-type: none"> • Re-establish Employee Energy and Environment Sustainability Committee • Adopt Government-by-Example Energy Policy for County building energy usage • Develop County facility energy usage dashboard • Work interdepartmentally on issues related to county fleet EV deployment and facility charging stations

Environment and Energy Future Forecast, FY 2024 and Beyond

(Staffing and resources to be determined in budget process)

Issue	Basis	Dep't	Action completed in FY 2023 <i>Details dependent on Board direction</i>	Potential Future Activities
Initiative 1. Sustainable Energy				
County Energy Strategy (CES)	Board Directed (12/1/20)	DGS	CES Report completed (<i>December 2022</i>) and implementation steps initiated	<ul style="list-style-type: none"> • Potential budget request for Energy Management Team FTEs • Implement strategies identified in the CES report
Community Choice Aggregation	Board Directed (12/15/20)	DGS DFB	Board direction based on additional analyses	<ul style="list-style-type: none"> • To be determined based on results of FY 2023 activities and further Board direction
Power Purchase Agreements (PPA)	Board Directed (12/15/20)	DGS	Board direction based on Request for Proposals for renewable PPA opportunities	<ul style="list-style-type: none"> • To be determined based on results of FY 2023 activities and further Board direction
Solar Regulations (Solar as Primary Use, e.g. Solar Farms)	Board Directed (4/20/21)	DGS DPZ	Solar farm regulatory processes identified and implemented	<ul style="list-style-type: none"> • To be determined based on results of FY 2023 activities and further Board direction
Waste Reuse for Renewable Energy	Board Directed (3/15/22)	DGS	Board direction based on Request for Information	<ul style="list-style-type: none"> • To be determined based on results of FY 2023 activities and further Board direction
Solar Regulations (Solar as Secondary Use, e.g. Residential)	General Plan / EC Priority	DGS DPZ B&D	Opportunities to encourage use of solar energy identified	<ul style="list-style-type: none"> • To be determined based on results of FY 2023 activities and further Board direction
Green Bank	General Plan / EC Priority	DGS DFB	Regional green bank activity tracked	<ul style="list-style-type: none"> • Conduct feasibility study

Environment and Energy Future Forecast, FY 2024 and beyond

(Staffing and resources to be determined in budget process)

Issue	Basis	Dep't	Action completed in FY 2023 <i>Details dependent on Board direction</i>	Potential Future Activities
Initiative 2. Natural Resources				
Conservation Projects in the Floodplain	Board Directed (1/4/22)	DGS B&D	Research and FY 2024 budgetary decisions completed	<ul style="list-style-type: none"> To be determined based on results of FY 2023 activities and further Board direction
Watershed Management Plans (WMPs)	General Plan / EC Priority	DGS B&D DPZ	Watershed management project plans and partnerships selected and County watershed implementation approach designed	<ul style="list-style-type: none"> Implement projects selected in FY 2023 Implement comprehensive watershed management approach with other departments and partners Conduct new WMP for a watershed defined in the Comprehensive WMP
Tree Protection	General Plan / EC Priority	DGS B&D DPZ	Public education initiated and options for other incentives or amendments considered	<ul style="list-style-type: none"> Conduct a tree canopy baseline study To be determined based on results of FY 2023 activities and further Board direction
Wildlife Corridors	General Plan / EC Priority	DGS B&D DPZ	Virginia Wildlife Corridor Action Plan implemented by Department of Wildlife Resources	<ul style="list-style-type: none"> Define wildlife corridors Identify priority wildlife corridors Improve wildlife crossings on roads to reduce wildlife-vehicle collisions Promote acquisition of conservation easements Develop and implement development design strategies
Environment and Energy Information Portal	General Plan / EC Priority	DGS B&D OMAGI OPA	Data interests and sources identified	<ul style="list-style-type: none"> Develop user-friendly online tool to share existing data in non-technical format Collect new data of interest to the public

Environment and Energy Future Forecast, FY 2024 and beyond

(Staffing and resources to be determined in budget process)

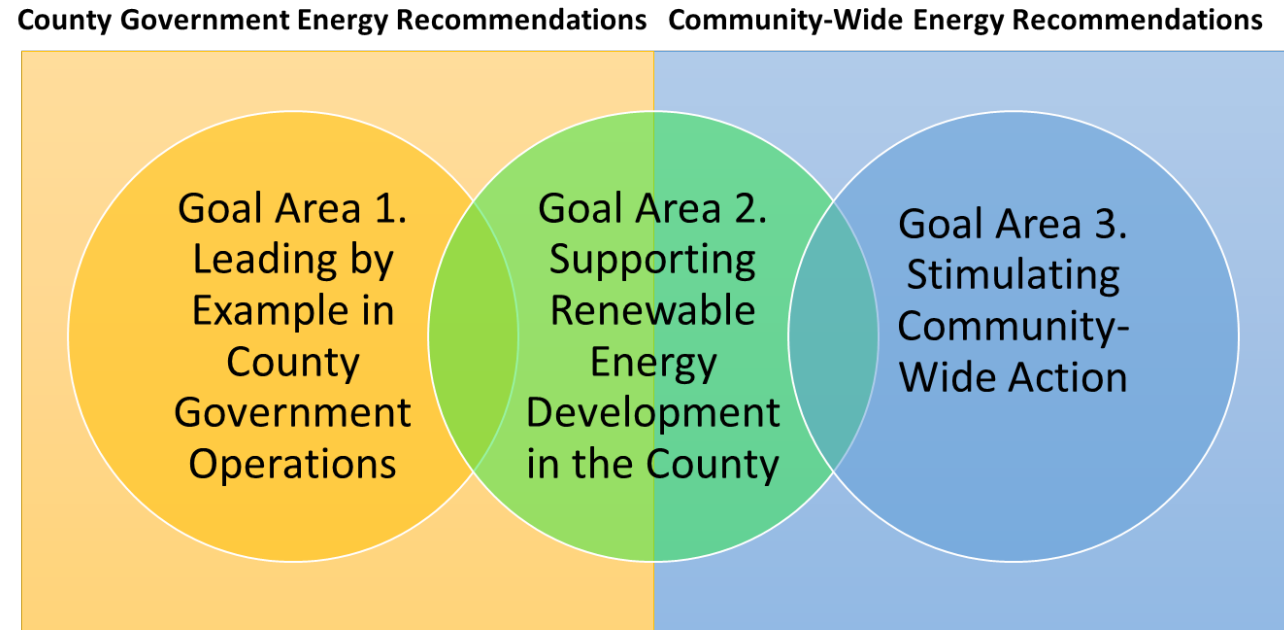
Issue	Basis	Dep't	Action completed in FY 2023 <i>Details dependent on Board direction</i>	Potential Future Activities
Initiative 3. Environmental Justice				
Environmental Justice (General)	Bylaws	DGS OEI	Interaction with state Office of Environmental Justice and EPA programs for local governments	<ul style="list-style-type: none"> Conduct environmental justice needs assessment
Energy Equity	General Plan / EC Priority	DGS OEI OPA	Energy equity framework developed, and projects and partnerships identified	<ul style="list-style-type: none"> Implement projects identified in FY 2023
Initiative 4. Public Engagement				
Environmental Excellence Awards	Bylaws	DGS OPA	Awards presented in November 2022	<ul style="list-style-type: none"> Present Awards (<i>April 2024 and annually</i>)
Public Forum on Environment and Energy	Bylaws	DGS OPA	Hosted public forum in May 2023	<ul style="list-style-type: none"> Hold forum (<i>May 2024 and annually</i>)
Initiative 5. Government by Example				
County Facilities Energy Use <i>(subset of County Energy Strategy)</i>	Board Directed (12/1/20)	DGS DTCI PRCS	Loudoun County Board Energy Policy in place and EV fleet pilot program complete	<ul style="list-style-type: none"> Continue implementation of Government-by-Example Board Energy Policy

Loudoun County Energy Strategy Goal Framework

Energy Plan Vision: Contribute to achieving Virginia’s goals of net-zero greenhouse gas emissions by 2045 and a carbon free grid by 2050 while ensuring energy is clean, reliable, and affordable for all residents and businesses in Loudoun County.

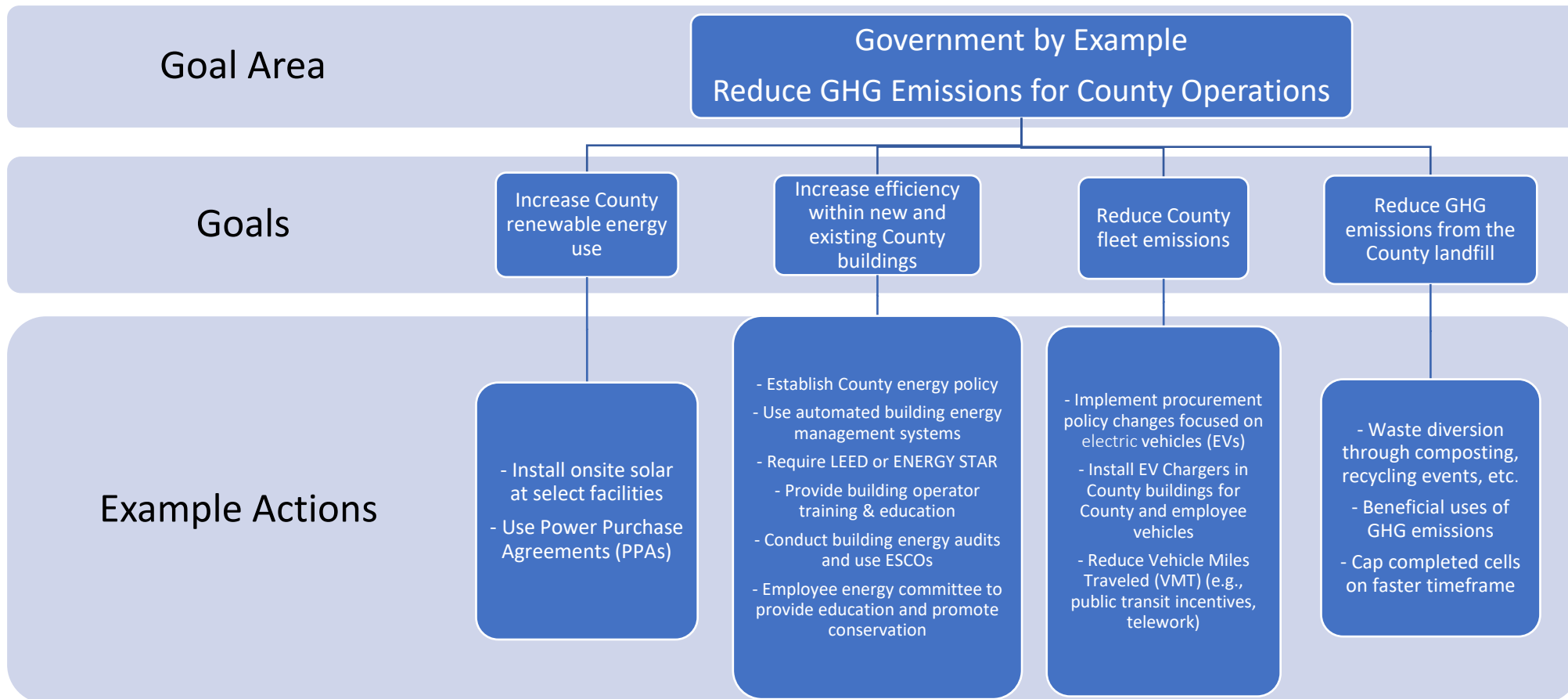
Framework incorporates three goal areas that cover two coordinated but distinct sets of recommendations:

A) County government leadership (i.e., Government by Example) **and B)** community-wide efforts.



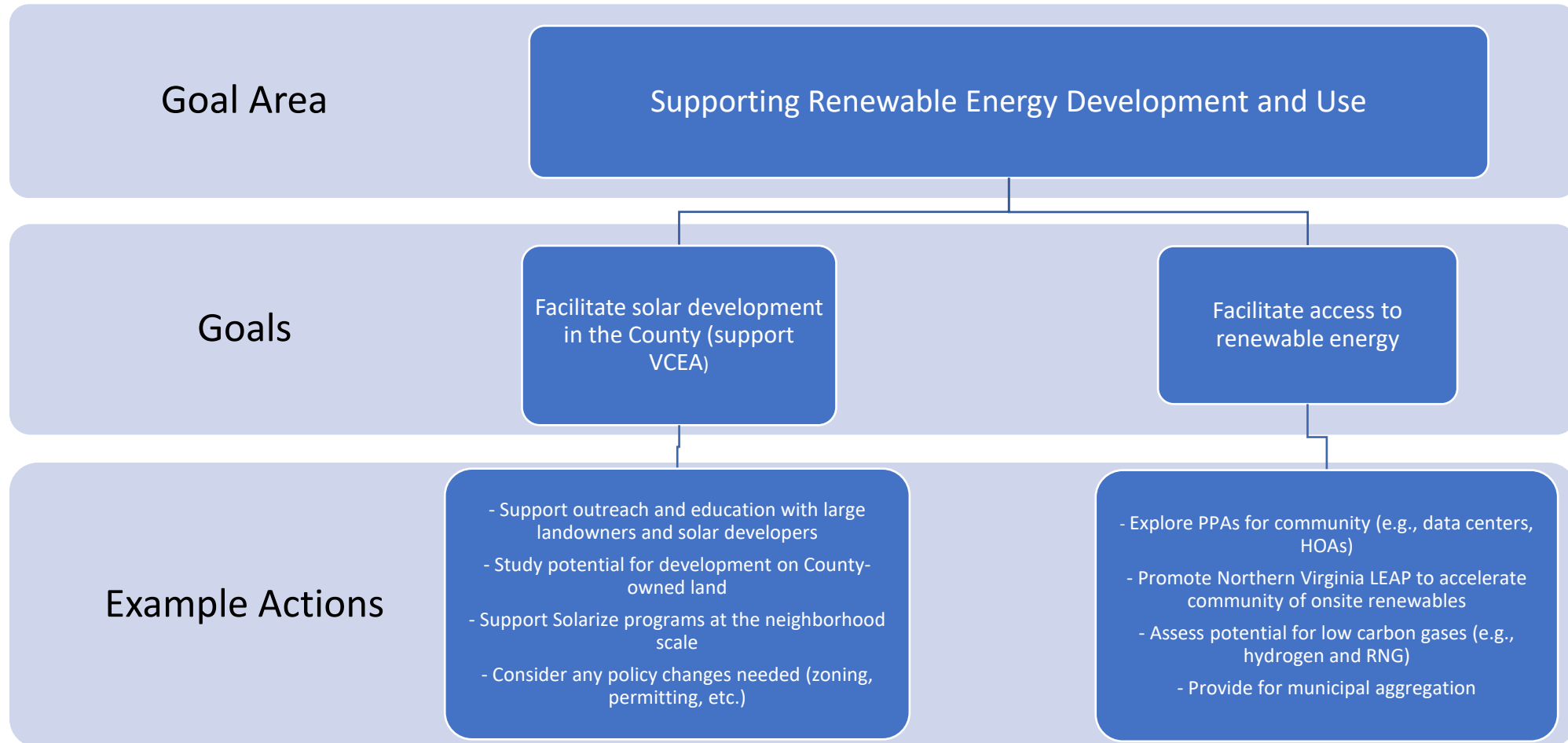
Goal Area 1. Government Operations: Government by Example

Focused on areas where the County has direct operational control. Actions in this goal will both reduce energy use at County facilities and set an example to promote community action.



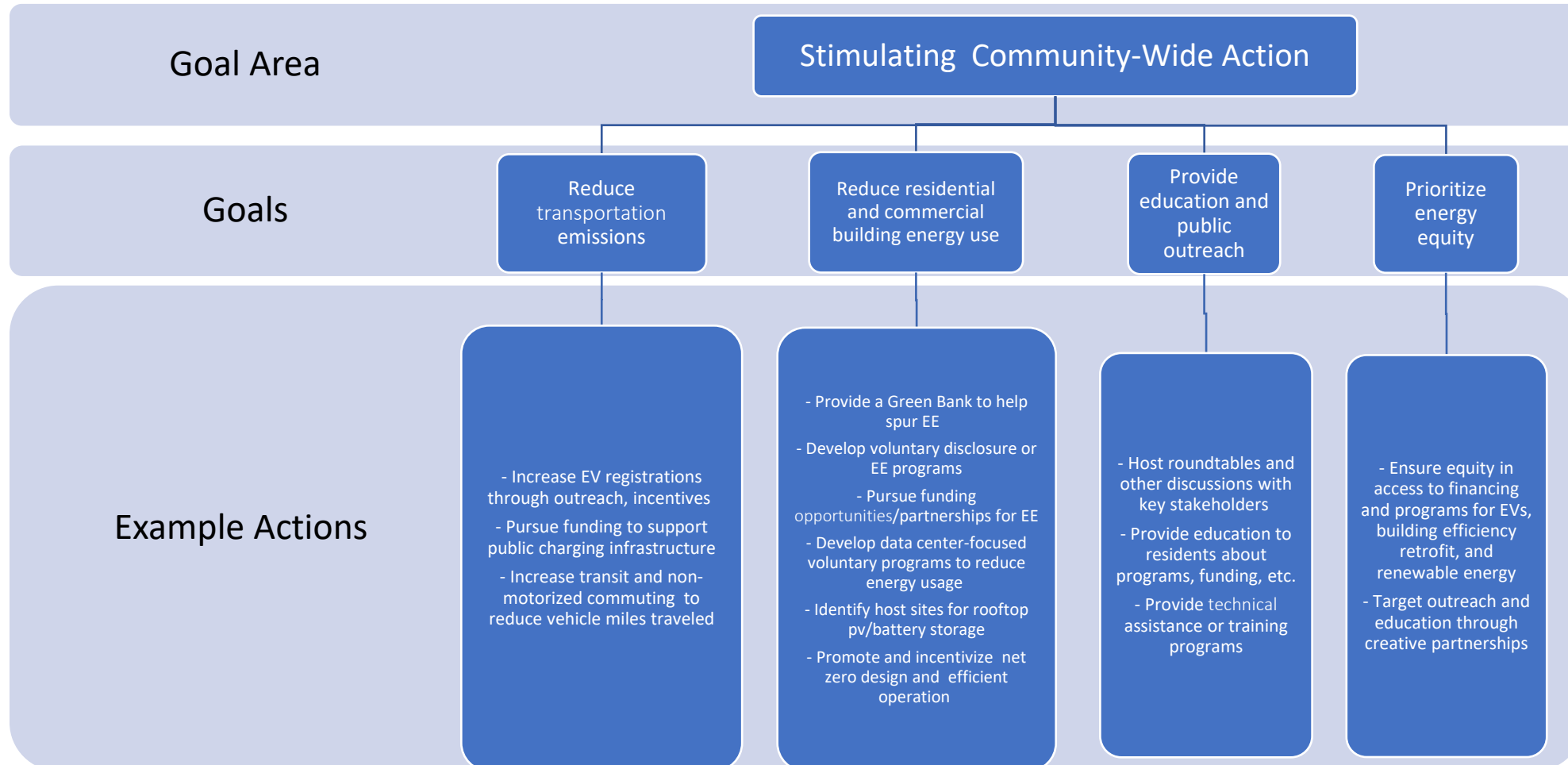
Goal Area 2. Supporting Renewable Energy Development & Use

Encompasses both what the County has direct operational control over and where the County can play a role in supporting renewable development and use in the broader community.



Goal Area 3. Stimulating Community-Wide Action

Focused on what the County can do to support the community in advancing clean energy and reducing GHG emissions while ensuring cost effectiveness and resilience.



*Loudoun County, Virginia
Environmental Excellence Awards
Program*

2023

*Honoring Those Who Protect and Preserve
The Environment of our Beautiful County*



Sponsored by:

Loudoun County Environmental Commission

and

Loudoun County Board of Supervisors

Attachment 4

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Introduction

In February 2021, the Loudoun County Board of Supervisors approved the bylaws and membership roster for a new Loudoun County citizen commission, the Environmental Commission. The purpose of the Environmental Commission is to advise and make recommendations to the Board on policies and practices dealing with the environment, sustainability, and the management of energy. The Environmental Commission bylaws outline duties to be carried out by the group including the presentation of annual awards recognizing leadership in the county on environmental issues. Beginning in 2023, the awards will be presented each April to coincide with Earth Day.

Award Categories

Loudoun County benefits from environmental leadership and programs executed by individuals and organizations. Candidates in all award categories except the Lifetime Achievement Award can be self-nominated or nominated by someone other than themselves. Lifetime Achievement nominees must be nominated by someone other than themselves. The Environmental Commission will be presenting awards to nominees in the following categories:

- Student Award – Individual or Student Group
- Educator (Teacher or School Employee)
- Large Business (over 100 employees)
- Small Business (under 100 employees)
- Government Employee or Program/Team
- Citizen or Community Group (examples: Non-Profit, Club, Church Group, etc.)
- **Lifetime Achievement** – One award for this category may be made per year if a nominated candidate is determined by the Commission to meet the criteria. This award will recognize a long-time Loudoun resident who has served the community for many years in an area of environmental stewardship.

Important Timelines

[some details remain to be filled in when process is underway]

Please see the dates below for application submission. Due to the amount of time required to carefully review all nominations, there will be no exceptions made for late or incomplete applications. If you have any questions, prior to the deadline, please contact _____ at _____ or 703-555-0000.

- **December 2022** – Award website live with details about the program and how to submit a nomination. Please see the Environmental Commission web page (<https://onboard.loudoun.gov/board/3503>) for link to the awards page.
- **January __, 2023 – February __, 2023** - Nominations may be submitted
- **February __, 2023** at 5pm – Nomination page will be closed and no applications will be accepted after this day/time.
- **March __, 2023** – Award winners will be notified by email and US Mail.
- **April __, 2023** – Award ceremony with Board of Supervisors (*location and time of day*)

Judging Criteria

Nominations will be evaluated and scored in the following areas:

50 Points – Environmental Impact - What are the tangible environmental benefits of the initiative or activities? How have they been measured? Provide specific metrics that support and are relevant to the initiative.

30 Points – Innovation/Uniqueness of the Initiative - What makes this initiative innovative? What is the person/organization doing to solve this environmental problem and why is this initiative unique? How viable and sustainable is this initiative?

20 Points – Transferability, Sharing of Insights and Best Practices - What are the best practices learned from the initiative? How are the best practices being shared? How far-reaching is the scope of the initiative? Can these activities be shared with other groups across the county to multiply the positive outcomes achieved?

Each year, there will be a specific environmental theme. Candidates or projects that address that theme will be awarded **5 bonus points**.

For 2023, the theme will be projects that specifically **impact litter prevention, education, or clean up**. Litter was a topic that received a lot of attention from participants in the 2021 Public Input session.

People and projects should be nominated for activities that took place between January 2022 and February 2023, with the exception of the Lifetime Achievement award.

Applications will be submitted through a web-based form. See example below, although details of some questions may change dependent on the category selected in the first step. Alternatively, applicants can provide a link to a video of 7 minutes or less in lieu of the written narrative responses. There will be an option to upload one supporting document of 10 pages or less.

2022 Loudoun County Environmental Awards Application

Thank you for nominating a person, group, or project for a 2023 Environmental Excellence Award. All projects and activities described in your application should have taken place between January 2022 and February 2023 (except Lifetime Achievement nominations).

Please select the category you are nominating from the following (this will be a pull-down list):

- Student – Individual or Group
- Educator – Teacher or School Employee
- Large Business (over 100 employees)
- Small Business (under 100 employees)
- Government Employee or Program/Team
- Citizen or Community Group (examples: Non-Profit, Club, Church Group, etc.)
- Lifetime Achievement (Individual)

Please provide the following information about the person/group/project you are nominating:

Name: _____

Address: _____

Contact Name (if group): _____

Phone: _____

E-Mail: _____

- 1) Please provide a brief overview of the person, group or project you are nominating and why you are nominating them (you will have an opportunity to provide additional information later in the application) : (100 words or less)

- 2) Describe what inspired this project or activity (what motivated the nominee to take action?). (100 words or less)

3) Describe how this nominee's actions/project has contributed to the preservation and protection of Loudoun County's environment. When was this activity performed? (200 words or less)

4) What specific environmental results have been achieved by these actions? (150 words or less)

5) What makes this initiative innovative? What is the nominee doing to solve this environmental problem and why is this initiative unique? How viable and sustainable is this initiative? (200 words or less)

6) What are the best practices learned from the initiative? How is this best practice being shared? How far-reaching is the scope of the initiative? Can this activity be shared with/replicated by other individuals or groups in the county? (200 words or less)

7) Please share any additional comments that will help us evaluate your nomination (up to 100 words):

Lifetime Achievement Nominees Only:

Please share any additional information about the groups/areas in the county that have been positively impacted by the nominee’s efforts and describe the duration and impact of their efforts (up to 250 words):
