Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
DEPARTMENT OF ENERGY RESOURCES

SMALL CLEAN ENERGY INFRASTRUCTURE FACILITY SITING & PERMITTING (225 CMR 29.00)

Guideline on Public Health, Safety, Environmental, and Other Standards

Effective Date: May 22, 2026

Background and Purpose

In accordance with 225 CMR 29.00, the Department of Energy Resources ("Department") is issuing the following baseline standards on Public Health, Safety, Environmental, and Other Standards ("Baseline Standards"). The Baseline Standards apply throughout the design, construction, operation, maintenance, and decommissioning of a Small Clean Energy Infrastructure Facility ("SCEIF"). This guideline is organized with the following tables:

Table 1: Baseline Standards Applicable to All SCEIFs

Table 2: Baseline Standards Applicable Only to Small Clean Energy Generation Facilities and Small Clean Energy Storage Facilities

Table 3: Baseline Standards Applicable Only to Small Clean Energy Storage Facilities

Table 4: Baseline Standards Applicable Only to Solar Facilities

Table 5: Baseline Standards Applicable Only to Wind Facilities

Table 6: Baseline Standards Applicable Only to Onshore Wind Facilities

Table 7: Baseline Standards Applicable Only to Offshore Wind Facilities

Table 8: Baseline Standards Applicable Only to Anerobic Digestion Facilities

The Department emphasizes that this Guideline represents a compilation of key standards and provisions that should be considered when designing a SCEIF. Other federal, state, and local standards may apply depending on the facility's proposed size, scope, location, and anticipated impacts.

Please note that the laws, regulations, or permits included in the Baseline Standards, are not implemented or enforced by the Department. The Department considers these Baseline Standards to be the minimum standards for compliance with 225 CMR 29.00 and acknowledges it may be appropriate or advantageous to exceed the requirements of the Baseline Standards in some cases.

Table 1: Baseline Standards Applicable to All SCEIFs

SCEIF -- All Facilities	
Topic	**Standard**
Compliance with All Laws	Applicants must comply with all applicable local, state, and federal bylaws, regulations, laws, and standards, including securing all applicable permits, licenses, and certifications.
Aboveground Storage Tanks (More than 10K Gallons)	Aboveground storage tanks with a gross capacity of more than 10,000 gallons that are used for the storage of any fluid other than water on the Site Footprint of a SCEIF shall meet the uniform requirements and procedures for the construction, maintenance, and use of such storage tanks pursuant to 527 CMR 9.00: *Tanks and Containers* and 502 CMR 5.00: *Permit and Inspection Requirements*.
Aboveground Storage Tanks (Less than 10K Gallons)	Aboveground storage tanks with a gross capacity of less than 10,000 gallons that are used for the storage of any fluid other than water on the Site Footprint of a SCEIF shall meet the uniform requirements and procedures for the construction, maintenance, and use of such storage tanks pursuant to 527 CMR 9.00: *Tanks and Containers*.
Air Pollution	SCEIFs shall meet the requirements of 310 CMR 7.00: *Air Pollution.*
Archeological Resources	Applicants shall meet the requirements of 950 CMR 70.00: *Massachusetts Historical Commission*
Article 97 Land Disposition	If the Site Footprint of a SCEIF overlaps with Article 97 lands, it shall meet all requirements and policies pertaining to Article 97 lands.
Asbestos	Management of asbestos shall meet the requirements of 454 CMR 28.00: *The Removal, Containment, Maintenance, or Encapsulation of Asbestos* and 310 CMR 7.15: *Air Pollution Control: Asbestos.*
Aviation Hazards	SCEIF design shall comply with Federal Aviation Administration standards of 14 CFR Part 77 and FAA Advisory Circular 70/7460-1, Obstruction Marking and Lighting.
Building Code	SCEIFs shall be designed and constructed to meet the requirements of the 780 CMR: *Massachusetts State Building Code*.
Chapter 91 (Trust Lands)	SCEIFs with a Site Footprint overlapping Trust Lands, shall meet the requirements of 310 CMR 9.00: *Waterways*
Coastal Zone Management (CZM)	SCEIFs shall comply with the requirements of the Coastal Zone Management Program, as defined in 301 CMR 20.00.

SCEIF -- All Facilities	
Topic	**Standard**
Cybersecurity	SCEIFs shall comply with applicable cybersecurity standards established by the U.S. Department of Commerce's National Institute of Standards and Technology, the North American Electric Reliability Corporation, or the International Organization for Standardization.
Decommissioning/ Abandonment	Prior to construction, the SCEIF owner shall provide to the Local Government, in cash, bond, letter of credit, escrow, or another form reasonably acceptable to the Local Government, a surety to cover the cost of removal in the event the Local Government must remove the SCEIF and remediate the landscape. • The amount of the surety shall be 125% of a fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer and labor rates outlined by the Massachusetts Department of Labor Standard's Prevailing Wage Program and shall account for increased costs due to inflation at a rate of 2.5 percent per year. • The Local Government shall reserve the right to have the decommissioning plan reviewed by a third-party engineer at cost to the SCEIF owner. The SCEIF owner shall provide an updated estimate after 10 years of project operation and subsequent updates in five-year intervals after that date, for the remainder of the project's lifetime. If the updated estimate exceeds the balance of the surety, the SCEIF owner shall provide additional surety in the amount of 125% of the most recent estimated cost of decommissioning. • The additional surety will not be required for municipally or state-owned facilities. In the absence of a proposed date of decommissioning or written notice of extenuating circumstances, a SCEIF shall be considered abandoned when it ceases to operate, meaning the SCEIF is not performing the normal functions associated with the SCEIF and its equipment on a continuous and ongoing basis, for more than 12 months, without written consent of the Local Government. The Local Government shall provide written notification of abandonment to the SCEIF's owner and operator. Decommissioning shall include removal of all structures, buildings, cabling, electrical components, security barriers, roads, foundations, pilings, and any other associated components and facilities. Decommissioning shall not include removal of drainage facilities.

SCEIF -- All Facilities	
Topic	**Standard**
	If the SCEIF was built upon agricultural soils, the site should be restored to its predevelopment condition. Disturbed earth shall be graded and re-seeded as necessary to minimize erosion unless the landowner requests in writing that the access roads or other land surface areas not be restored. Hazardous material from the SCEIF shall be disposed of in accordance with federal, state, and local law. The decommissioning plan shall also utilize best recycling practices to the maximum feasible extent.
Electrical Code	All electrical components, equipment and systems shall be designed and constructed to meet the requirements of 527 CMR 12.00: *Massachusetts Electrical Code*.
Excavation and Trench Safety	Excavation and trench safety standards shall comply with 520 CMR 14.00: *Excavation and Trench Safety*.
Emergency Response Plan	The Applicant shall create an emergency response plan ("ERP") that: 1. is developed in consultation with local public safety officials; and 2. requires close coordination between the developer and first responders to ensure that first responders are fully informed about emergency events and understand how to address such events without assuming unnecessary personal risk. The ERP shall include: 1. equipment types and layouts without compromising Critical Energy/Electric Infrastructure Information; 2. safety data sheets for materials used or stored onsite; 3. a firefighting plan with suggested response procedures for various emergency conditions; and 4. the emergency response tasks that will be undertaken and completed by the operator of the facility/facilities. The Applicant shall consult with the appropriate Local Government board or department in developing the ERP. *Please see Table 3 for additional requirements for ERPs for Clean Energy Storage Facilities.*
Fire Safety	SCEIFs shall be designed and constructed to meet the requirements of the 527 CMR 1.00: *Massachusetts Comprehensive Fire Safety Code*.

SCEIF -- All Facilities	
Topic	**Standard**
Hazardous Waste	Management of hazardous waste shall meet or exceed the Commonwealth's hazardous waste standards pursuant to 310 CMR 30.00: *Hazardous Waste*.
Herbicides and Pesticides	The Applicant shall ensure that any herbicide or pesticide application is consistent with M.G.L. c. 132B, 333 CMR 11.00: *Rights of Way Management*, and local regulations.
Historic Places	The Applicant must comply with all applicable provisions of 950 CMR 71.00.
Vegetation	Natural vegetation within the Site Footprint shall be preserved to the maximum extent possible. This may include blending in equipment with the surroundings, adding vegetative buffers to provide an effective visual barrier from adjacent roads and driveways, and screening abutting residential dwellings. Vegetative buffering and screening shall meet all local requirements and the plantings used shall be native drought-resistant species and shall not include any invasive or nuisance plantings listed in the most recent Massachusetts Prohibited Plant list as published by the MDAR. Landscaping plans and plantings may be located within the setback area and must be consistent with the pollinator friendly practices referenced in this Guideline.
Lighting	All exterior lighting used during construction must be directed downward and prevent light from straying beyond the property boundary (commonly known as Dark-Sky type)
Massachusetts Endangered Species Act	SCEIFs shall meet or exceed the requirements of M.G.L. c. 131A and 321 CMR 10.00: *Massachusetts Endangered Species Act.*
Noise	SCEIFs shall meet the requirements of 310 CMR 7.10: *Air Pollution Control*, and applicable local noise regulations.
Street Surface Restoration	Applicants performing excavations shall comply with all state and local requirements for restoring municipal street surfaces after performing excavations.
Pollinator Friendly Practices	Facilities shall limit clearing of natural vegetation, including mowing, to what is necessary for the construction, operation, and maintenance of the SCEIF. Any vegetative cover on the SCEIF's site shall be maintained to prevent soil erosion and plantings shall be native species

SCEIF -- All Facilities	
Topic	**Standard**
	appropriate to the geographical area, consistent with *The Vascular Plants of Massachusetts: A County Checklist provided by the Massachusetts Natural Heritage and Endangered Species Program*.
"Right to Know" (Hazardous Substances)	Use of hazardous substances related to a SCEIF shall meet or exceed the standards and requirements of 454 CMR 21.00: *"Right to Know" Law M.G.L. c. 111F.*
Solid Waste Facilities	SCEIFs that are solid waste facilities or conduct activities on a permitted solid waste facility shall meet or exceed the requirements of 310 CMR 16.00: *Site Assignment Regulation for Solid Waste Facilities* and 310 CMR 19.00: *Solid Waste Management* for siting, construction, operation, closure and post-closure.
Stormwater Management	SCIEFs shall be constructed to produce equal to or less than pre-development stormwater runoff and shall be managed in accordance with the requirements of the Wetlands Regulations, 310 CMR 10.00, the 401 Water Quality Certification for Discharge of Dredged or Fill Material, Dredging, and Dredged Material Disposal in Waters of the United States Within the Commonwealth Regulations, 314 CMR 9.00, the Massachusetts Stormwater Handbook, the NPDES Construction General Permit, and the Multi-Sector General Permit, where applicable. This Baseline Standard shall not apply to agrivoltaics.
Surface Water Quality Standards	Applicants shall meet or exceed the Commonwealth's surface water quality standards pursuant to 314 CMR 4.00: *Massachusetts Surface Water Quality Standards* and all other applicable local, state, and federal laws and regulations.
Transmission Line Installation and Maintenance	SCEIFs with electric transmission lines over 50 kV as measured in alternating current shall comply with the safety provisions for the installation and maintenance of electric transmission lines in 220 CMR 125.00: *Installation and Maintenance of Electric Transmission Lines*.
Wellhead Protection	SCEIFs shall comply with all local, state, and federal rules related to wellhead protection, including but not limited to local wellhead and surface water protection regulations, and 310 CMR 22.00: *Drinking Water*.
Wetlands Protection	SCEIFs shall meet the requirements of 310 CMR 10.00: *Wetland Protection Act Regulations*, and all applicable local, state, and federal wetlands rules including relevant coastal wetlands restrictions and inland wetlands restrictions.

SCEIF -- All Facilities	
Topic	**Standard**
Operations and Maintenance Plan	Prior to commercial operation, the Applicant shall submit to the Local Government a plan for the operation and maintenance of the SCEIF concurrently with the submission of the Building Permit Application. That plan shall include measures for maintaining safe access to the SCEIF, stormwater management control, and general procedures for operational maintenance of the SCEIF. The Applicant shall maintain the SCEIF in good condition. Maintenance shall also include, but not be limited to, painting structures, structural repairs, and integrity of security measures.

Table 2: Baseline Standards Applicable Only to Small Clean Energy Generation Facilities and Small Clean Energy Storage Facilities

Generation and Storage Facilities Only	
Topic	**Standard**
Slope	The Site Footprint may not exceed a slope of 15 degrees compared to the original slope.

Table 3: Baseline Standards Applicable Only to Small Clean Energy Storage Facilities ("SCESF")

Small Clean Energy Storage Facilities	
Topic	**Standard**
Emergency Response	The Applicant shall develop an emergency response plan ("ERP") that meets the requirements of National Fire Protection Association ("NFPA") 855 and state and local fire laws and regulations. The ERP shall: (i) be developed in consultation with the Local Government's public safety officials; and (ii) require close coordination between the Applicant and emergency responders to ensure that emergency responders are fully informed about potential emergency events and understand how to address such events without assuming unnecessary personal risk. The Emergency Response Plan shall include, but not be limited to, the following information: 1. Procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions to reduce the risk of fire, electric shock, and personal injuries, and for safe start-up following cessation of emergency conditions; 2. Procedures for inspection and testing of associated alarms, interlocks, and controls;

Small Clean Energy Storage Facilities	
Topic	**Standard**
	3. Procedures in response to notifications from the BESS management system, when provided, that could signify potentially dangerous conditions, including shutting down equipment, summoning service and repair personnel, and providing agreed upon notification to fire department personnel for potentially hazardous conditions in the event of a system failure; 4. Emergency procedures in case of fire, explosion, release of liquids or vapors, damage to critical moving parts, or other potentially dangerous conditions. Procedures can include sounding the alarm, notifying the fire department, evacuating personnel, de-energizing equipment, and controlling and extinguishing the fire; 5. Response considerations similar to a safety data sheet (SDS) that will address response safety concerns and extinguishment when an SDS is not required; 6. Procedures for handling BESS equipment damaged in a fire or other emergency event, including maintaining contact information for personnel qualified to safely remove damaged BESS equipment from the facility; 7. Other procedures as determined necessary by the Local Government to provide for the safety of occupants, neighboring properties, and emergency responders; and 8. Training for local first responders on the contents of the plan, and protocols and schedules for conducting drills of the above procedures 9. A communications plan for nearby residents who may be impacted by an emergency event that shall outline the parties responsible for contacting nearby residents; 10. An evacuation and shelter-in-place protocols for residents near the SCESF; and 11. The names and phone numbers of local, state, and federal agencies and officials to be contacted in the event of an emergency. The Applicant shall work with the fire departments in the SCESF's vicinity to determine whether the development of a joint action plan is required. The joint action plan shall provide neighboring fire departments with the proper information and necessary training to understand potential emergency risks caused by the SCESF and provide, if necessary, a coordinated response. The Applicant shall provide a report to the Local Government within one week of any incident at the SCESF requiring notification to first

Small Clean Energy Storage Facilities	
Topic	**Standard**
	responders. The report shall include a description of the incident and response, and the date(s) and time(s) of the incident and response. The Applicant shall submit an annual report to the Local Government detailing: (i) any safety incidents that required notification of local safety authorities, including a full description of each incident and response, and the necessary, if any, changes the owner or operator of the SCESF made in response to each incident and response, if any; and (ii) a summary of any complaints about the SCESF received by the owner or operator, including the nature of the complaint and date received, the owner or operator's response and date of response, the complaint's resolution, and identification of the individual(s) or party/parties who issued the complaint. In an emergency incident, including a fire, the Applicant or operator shall follow all federal, state, and local emergency response protocols outlining mandatory containment, remediation, testing, and monitoring efforts including, but not limited to, 310 CMR 22.00 and 310 CMR 40.00.
Electrical	Storage Facilities shall be listed by a Nationally Recognized Testing Laboratory to UL 9540 (Standard for Energy Storage Systems and Equipment) or approved equivalent, with subcomponents meeting each of the following standards as applicable: 1) UL 1973 (Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail Applications); 2) UL 1642 (Standard for Lithium Batteries); 3) UL 1741 or UL 62109 (Inverters and Power Converters); 4) Certified under the applicable electrical, building, and fire prevention codes as required. Alternatively, field evaluation by an approved testing laboratory for compliance with UL 9540 (or approved equivalent) and applicable codes, regulations, and safety standards may be used to meet system certification requirements. Pursuant to 527 CMR 12.00, Storage Facilities shall clearly display disconnect and other emergency shutoff information on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.

Small Clean Energy Storage Facilities	
Topic	**Standard**
Fire Safety	Storage Facilities shall be designed, constructed, and operated in accordance with National Fire Protection Association ("NFPA") 855: *Standard for the Installation of Energy Storage Systems*. Storage Facilities shall be designed to meet UL 9540A fire testing and thermal runaway propagation risk test methods for cell level, module level, unit level, and installation level.
Setbacks	Storage Facilities shall be set back from other structures, tree lines, and other combustible materials, at a distance that meets or exceeds the recommendations in NFPA 855 and the Massachusetts State Fire Code.
Signage	Signage for Storage Facilities shall comply with ANSI Z535 and shall include the type of technology associated with the Storage Facility, any special hazards associated, the type of suppression system installed in the area of Storage Facility, and 24-hour emergency contact information, including phone number.

Table 4: Baseline Standards Applicable Only to Solar Facilities

Solar Facilities Only	
Topic	**Standard**
Glare	Solar Facilities shall be designed to minimize glare onto any abutting or nearby properties. Designs may include, but not be limited to, deliberate placement and arrangement on the site, anti-reflective materials, solar glare modeling, and screening.
Decommissioning	Decommissioning shall include removal of all structures, buildings, cabling, electrical components, security barriers, roads, foundations, pilings, and any other associated components and facilities to a depth of no less than three feet.
Pollinator Friendly Practices	Solar Facilities shall meet the criteria for a silver pollinator certificate, as described by the UMass Clean Energy Extension Pollinator Friendly Solar PV Certification Program.
Setbacks	Solar Facilities shall meet or exceed the following setback requirements: 1. Front yard: The front yard depth shall be at least 20 feet; provided, however, that where the lot is within or abutting a residential district, the front yard shall not be less than 50 feet;

Solar Facilities Only	
Topic	**Standard**
	2. Side yard. The side yard depth shall be at least 20 feet; provided, however, that where the lot is within or abutting a residential district, the side yard shall not be less than 50 feet; and 3. Rear yard. The rear yard depth shall be at least 20 feet; provided, however, that where the lot is within or abutting a residential district, the rear yard shall not be less than 50 feet.

Table 5: Baseline Standards Applicable Wind Facilities

Wind Facilities Only	
Topic	**Standard**
SF6 Alternatives	The Applicant shall investigate alternatives to using SF6 at the facility, and, whenever possible and cost-justified, employ such alternatives. Further, the Applicant shall inform the Local Government when viable alternatives are identified.
Changes in SF6 in Project Equipment	The Local Government must be promptly notified if SF6 is added to any equipment or any equipment is replaced due to SF6 loss.
SF6 Compliance Filing	If SF6 is used to operate a Wind Facility, the Applicant or facility operator must meet the standards and requirements of 310 CMR 7.72.

Table 6: Baseline Standards Applicable Only to Onshore Wind Facilities

Onshore Wind Facilities Only	
Topic	**Standard**
Flicker	Onshore Wind Facilities shall be sited in a manner that minimizes shadowing or flicker impacts.
Siting	Onshore Wind Facilities shall not be sited within: o a distance equal to one and one-half (1.5) times the maximum tip height ("MTH") of the wind turbine from buildings, critical infrastructure — including Critical Electric Infrastructure and above-ground natural gas distribution infrastructure — or private or public ways that are not part of the wind energy facility; o a distance equal to three (3.0) times the MTH of the turbine from the nearest existing residential or commercial structure; or o a distance equal to one and one-half (1.5) times the MTH of the turbine from the nearest property line, and private or public way.

Table 7: Baseline Standards that Applicable Only to Offshore Wind Facilities or Other Offshore SCEIFs

SCEIF – Offshore Wind Facilities or Other Offshore SCEIFs	
Topic	**Standard**
Ocean Management Plan	Offshore Wind Facilities shall meet or exceed the requirements of 301 CMR 28.00: *Ocean Management Plan* as applicable.
Ocean Sanctuaries Act	Offshore Wind Facilities or other offshore SCEIFs shall meet or exceed the requirement of 301 CMR 27.00: *Ocean Sanctuaries.*

Table 8: Baseline Standards Applicable Only to Anaerobic Digestion Facilities ("ADF")

SCEIF – Anaerobic Digestion Facilities
The Department does not require any additional Baseline Standards for ADFs