



**WE MOVE MN SOLAR FORWARD**

## **Minnesota Brightfields: Environmental Quality Board Study**

*Legislation to further solar siting & GHG mitigation on Minnesota Closed Landfill Program sites*

### **CONTENT OVERVIEW**

#### **Legislative Purpose & Tasks**

Mandate Environmental Quality Board (EQB) inter-agency study pursuant to Minn. Stat. § 116C and associated Minnesota Rules, and appropriate necessary funding. Convene various agencies and parties for data collection, review and analysis. Report findings, recommendations, and progress on implementing Objective. Fiscal note (amount to be determined by EQB).

#### **OBJECTIVE**

To provide funding to the EQB, to perform itself and/or for EQB to hire neutral third-party contractors to perform, the below functions numbered (1) through (4), for the purpose of:

- (i) Streamlining and increasing development of renewable energy on Closed Landfill Program sites;
  - (ii) Creating a replicable framework that can be applied to various situations where there is interest by state or other entities in developing renewable projects on such sites; and
  - (iii) Mitigating greenhouse gas emissions from such sites, with a specific consideration for mitigating impacts on low income and environmental justice areas, fulfilling the Minnesota Pollution Control Agency's (PCA) mission to protect human health & the environment:
- (1) DATA COLLECTION & ANALYSIS: new fact collection & preexisting agency data analysis, spanning across multiple agencies
- a. POLLUTION CONTROL AGENCY: Closed Landfill Program site suitability analysis including but not limited to:
    - i. Parcel ownership and delineations
    - ii. Landfill "settling policy" status
    - iii. General Obligation Bond applicability to each Closed Landfill Program site and bond terms
    - iv. Solar suitability assessments, including but not limited to:
      - 1. Solar potential and feasibility
      - 2. City, county and citizen education about the solar potential on their landfill sites and polling of interest in developing renewables on the unused land
      - 3. Local permitting processes and hurdles, if any

4. Proximity to substations
  5. Proximity to and impact on environmental justice and low-income areas
  6. Proximity to potential public load / public sector energy off-takers
  7. Voltage line rating
  8. Potential project funding and cost savings estimates
- b. MN MANAGEMENT & BUDGET (MMB): Data collection as needed; see also legal review directive below
  - c. DEPT. OF ADMINISTRATION: Data collection as needed
  - d. MET COUNCIL: Data collection as needed
  - e. DEPT. OF COMMERCE: Data collection as needed
  - f. Other data collection and analysis as necessary to accomplish Objective

## (2) LEGAL REVIEW & ANALYSIS

- a. MMB is directed to hire a third-party neutral consultant and/or legal counsel to:
  - i. Compile data, review, analyze and report on Closed Landfill Program sites' legal statuses, with specific consideration of General Obligation Bonding restrictions and safe harbors
  - ii. Suggest actions to overcome General Obligation Bonding, and other tax and financial hurdles, at Minnesota's Closed Landfill Program sites, considering information gathered herein and other resources such as the Minnesota Department of Revenue, the Internal Revenue Service, and other states with with existing landfills developed with solar
- b. Other legal review and analysis as necessary to accomplish Objective

## (3) REPORT FINDINGS & PROPOSALS TO IMPLEMENT OBJECTIVE

- a. One year from enactment, EQB is directed to report to the Legislature its study findings and to offer proposed pathways to achieve the above Objective: to streamline and increase development of renewable energy on Closed Landfill Program sites; to create a replicable framework for other similar development usable by interested state and other entities; and to further environmental response to mitigate greenhouse gas emissions from such sites and to protect human health & the environment, with a specific consideration for mitigating impact on low income and environmental justice areas
  - i. This includes proposed changes to current practices, policy, statutes and regulations
  - ii. Each proposed pathway shall include a cost-benefit analysis of developing solar for each CLP site's neighboring community, for the state agencies and for the state as a whole

## (4) ANNUAL PROGRESS REPORTS ON IMPLEMENTATION

- a. For five years following the initial report, EQB is directed to file an annual report to the Legislature with updates on its progress implementing the above Objective

## MINNESOTA BRIGHTFIELDS BACKGROUND INFORMATION

### Overview of the Problem & Parties Identified

According to a Minnesota Pollution Control Agency (PCA) study, its Closed Landfill Program sites' methane and other greenhouse gas emissions constitute 18% of all State agencies' collective emissions of greenhouse gases. CLP sites are often sited near low income and environmental justice communities, whom bear disproportionate exposure rates.

Developing an agency-led framework to develop renewable energy on Closed Landfill Program sites in Minnesota to mitigate greenhouse gas emissions is desired by the Minnesota Pollution Control Agency generally but is complicated and essentially halted by the lack of staff, resources, data, and directives to properly assess Closed Landfill Program site suitability for solar development. This is compounded by lack of directives at both PCA and the Minnesota Management and Budget office to analyze and streamline the approval process to encourage this effort.

The "Minnesota Brightfields" effort is a work in progress involving numerous state and federal agencies, Minnesota organizations and stakeholders. Leadership for this cause comes from Metropolitan Council, Great Plains Institute, Clean Energy Resource Teams, Minnesota Brownfields, Department of Commerce, US Environmental Protection Agency, and Minnesota Solar Energy Industries Association, along with several cities and other stakeholders. This effort depends directly on agencies like PCA and MMB. Other agencies that may be involved directly include Department of Commerce, Department of Administration, Metropolitan Council and the US Environmental Protection Agency.

The Brightfields team intends to forge a path for renewable development on landfills. This "framework development" would be housed in a legislatively-funded EQB effort that encircles both PCA's response action to mitigate greenhouse gas emissions from its closed landfill program sites and its purpose to protect human health & the environment.

### Barriers to Developing Renewable Energy on MN Landfills and Mitigating GHG Emissions

1. To date, there is no clear and uniformly identified "brightfield" development pathway for either (a) all sites in the closed landfill program, or (b) for each individual site in the closed landfill program. This lack of clarity inhibits greenhouse gas emission progress and business certainty for would-be markets to develop in the state. Investment risks are high for industry participants that try to develop brightfields on a case-by-case basis
2. PCA's mission and purpose to protect human health & the environment align directly with solar development on their closed landfill program sites, as they have stated publicly, but they are unable to investigate this opportunity further without more resources
3. Similarly, MMB is hesitant to untangle the complexities of approval for solar projects on CLP sites with General Obligation bonding restrictions -- by developing a "best practices" or streamlined approval process -- without further staff, funding and a directive to do so

4. Minnesota is the only state (or one of the only) that does General Obligation bonding for closed landfills, which may threaten the bonding status of the site if used for a separate, private purpose, such as solar development. New England, on the other hand, is developing large closed landfills with solar and serving the load of adjacent towns and cities with streamlined permitting and other approval processes, with access to private Superfund PRP funding
5. With the entry of Freeway Landfill into the Closed Landfill Program there are now 110 closed landfills in the program. There are 4 more facilities that are eligible but have not yet entered the program, enhancing a significant market opportunity in Minnesota for renewable reuse
6. Only about half of the 110 landfills are constrained by the use of state General Obligation bonds, but data is lacking on which portion of each site is GO bond restricted, and what percentage of the land coverage of each site is GO bonded
7. PCA is restricted by its funding and resources to develop solar on its "settled" closed landfills, despite interest in this effort
8. PCA is concerned about cap intrusion risks from developing solar, but it is interested in exploring this topic further and also on working on the "buffer" areas (in comparison to an entire site, the buffer may not be a significant area of land on which to develop solar or mitigate the impact of methane emissions from its landfills)
9. Many of the state's closed landfills fall under Rural Electric Cooperative service territory where there are many more financial barriers to the solar PV market as a whole:
  1. less technical, financial, legal, and mechanical experience with utility-scale solar photovoltaic (PV) development;
  2. less risk tolerance in general;
  3. less staff and financial capacity to execute the necessary analysis to host utility-scale solar PV projects
10. Lack of education in the state of the potential for beneficial use of these properties with solar
11. Lack of education across the state's offices and agencies on the financial mechanisms by which solar PV can be and does get developed in Minnesota
12. Environmental insurance costs, uncertain permitting processes and delays, and ongoing operating and maintenance engineering work drives up the cost of developing PV on these sites and creates a market barrier
13. Individual counties and local government processes may not be streamlined and/or amenable to getting a PV project done on a PCA closed landfill site. This includes general attitudes in local or state offices that vary in enthusiasm toward this effort
14. The dumps in Minnesota - outside of PCA's Closed Landfill Program -- are not all owned by the state, and complex private land transactions and uncompleted site assessments may be required to proceed to develop solar on the sites