

The 2021 Industry Survey was distributed by the Tennessee Department of Environment and Conservation (TDEC), Office of Policy and Sustainable Practices (OPSP), with 324 industry representatives throughout Tennessee being asked to participate. Survey recipients were primarily comprised of the food and beverage and automotive manufacturers, the top 200 reporting facilities on the Toxic Release Inventory (TRI), and Tennessee Green Star Partners. The goal of the survey was to better understand the landscape of environmental management practices, sustainability, pollution prevention activities, and associated challenges and opportunities in Tennessee. OPSP would like to thank everyone that responded to the 2021 Industry Survey. A total of 61 individuals (20%) responded to the industry survey, representing a diverse mix of industry types, facility sizes, and geographic locations throughout Tennessee.

The 2021 Industry Survey – Executive Summary provides significant insights on the current landscape of environmental management, sustainability, and pollution prevention practices at industry in Tennessee. Survey data and associated findings will enable OPSP to offer substantive roundtable meetings that address issues identified as impacting industry. Roundtable meetings will be used to further scope OPSP’s design and content of summer workshops and trainings, webinars, and other resources developed for Tennessee’s industry community. Additionally, the information contained in the Executive Summary also provides Tennessee’s industry leaders with an overview of the current state of environmental management, sustainability, and pollution prevention practices in Tennessee. Smart environmental choices can give organizations competitive advantages.

If you have questions or interest in additional discussion regarding survey results, please respond by e-mail or call us:

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The survey results provide an encouraging snapshot of the current state of environmental management, sustainability, and pollution prevention practices within Tennessee industry. The following are the primary takeaways from the 2021 Industry Survey and will be used to inform discussion during the roundtable meetings:

- Nearly 50% of respondents have an ISO 14001 certified Environmental Management System (EMS). Sixteen percent of facilities responding to the survey have an EMS that conforms to the ISO standards but is not certified. Only about 20% have none. A unique alternative environmental certification noted in the responses was Enhancing Furniture’s Environmental Culture, (EFEC) a voluntary environmental management system developed by the American Home Furnishings Alliance.

- Twelve percent of respondents are designated or self-designated as a Zero Waste to Landfill (ZWTL) facility. ZWTL still has no official or common definition, however it is generally accepted to be at least 95% of discards being reused, recycled, or otherwise not landfilled. Eighty-eight percent of facilities responding to the survey are not ZWTL but nearly all have plans to achieve this. Results from OPSP's 2020 Industry Survey reflects the exact percentages regarding ZWTLF. Common obstacles to this goal vary widely but general themes are vendor capabilities, lack of monetary commitment, and issues with materials substitutions. Most often mentioned is that products require certain non-recyclable materials and that all reductions that do not compromise the quality of products have been achieved.
- Fifty percent of respondents utilize recycling options within the state. Tennessee borders more states than any other state in the country. Twenty-eight percent of respondents recycle out of state. In many instances it is the pragmatic approach to use out-of-state options. Specialized items often require corporate accounts, and therefore are limited in the use of local vendors. Sixteen percent of facilities responding to the survey use waste-to-energy options and 24% reuse materials within the state.
- Liquid wastes are treated with a variety of options with over 50% of respondents using other options than specified in the survey. Twenty-eight percent landfill their liquid wastes while 8% use land application and less than 1% rely on animal feed options. A unique outlier from one respondent was the use of evaporation for the purpose of metals reclamation.
- Over 70% of individuals participating in the survey have heard of the [Tennessee Materials Marketplace](#), TDEC's collaborative platform to facilitate the reuse of materials. Many of the respondents would like assistance with recycling certain materials. The Tennessee Materials Marketplace is a major tool for the recycling, reuse or return of discarded materials back into the economy.
- Forty-six percent of respondents have non-hazardous byproducts that could have other uses. Impediments to this are a lack of recycling vendors and prohibitive costs for processing and transportation.
- Forty-six percent would like assistance with finding a beneficial end-use of material discards. Lack of partners, low quantities, and materials unique to particular manufacturing processes were the major impediments. OPSPS will be in direct contact with each of these respondents to offer further assistance.
- Only 25% of responding facilities participate in any demand response programs for energy use curtailment and management during peak energy use times.
- The most popular energy reduction project was lighting upgrades with 96% of facilities indicating that they have upgraded lighting. Other energy efficient equipment and practices are implemented by over 50%.
- The [Tennessee 3 Star Industrial Assessment Center](#) offers in-depth energy audits at no cost. OPSP plans to refer the 37% of respondents interested in energy audits to the IAC program.
- Over 80% of respondents report toxic releases to the U.S. EPA.

- For nearly 50% of respondents, the primary barrier to pollution reduction of TRI reportable chemicals is that there are no known substitutes. An encouraging statistic from the survey is that over 36% have attempted reductions and substitutions to a point that concern for product quality and economic feasibility are the main barriers.
- Twenty-one percent of respondents are interested in becoming [TN Green Star Partnership](#) industries; TDEC's leadership program for industry, which includes General Motors, Delta Faucet, Nissan and many other industry and sustainability leaders throughout the state. OPSP staff will contact those interested.
- Seventy-nine percent of respondents are interested in participating in collaborative projects which will include materials, chemicals, and energy management challenges. This group will be kept informed of opportunities soon.

OPSP appreciates your valuable time and efforts toward making Tennessee a more sustainable state.

Two state-wide industry roundtables will be held through remote webinars on Wednesday, May 12th and Thursday, May 20th.

Participation information is below. You may RSVP for either meeting:

#### **State-Wide Industry Roundtable #1**

Wednesday, May 12, 2021

Meeting link:

<https://tngov.webex.com/tngov/j.php?MTID=m795844e5b97a23ca3876b8eaaea61161>

Meeting number: 185 439 5734

Password: EDeq2sFxP83

#### **State-Wide Industry Roundtable #2**

Thursday, May 20, 2021

Meeting link:

<https://tngov.webex.com/tngov/j.php?MTID=mb60da4be51ab381915fad23335c8f88f>

Meeting number: 185 166 1133

Password: 3NTpnUzBF25