

NSSGA and Return on Investment

NSSGA's Greenhouse Gas Calculator Provides Verifiable Data for Current and Future Registries



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They're coming. And while the U.S. Environmental Protection Agency has delayed them at this point, it's only a matter of time before new regulations, or new legislation, will include mandatory registries that will require monitoring of greenhouse gas (GHG) emissions from a variety of stationary sources, possibly including our industry. In fact, by June, the EPA will have a required GHG registry to use as a reporting mechanism. A GHG registry is a database for collecting, verifying and tracking emissions data on a facility or corporate level.

Because NSSGA foreshadowed this agency action, the association created a simple spreadsheet calculator that

can help members verifiably determine their GHG emission levels for mobile and stationary sources at aggregate, ready mixed concrete, asphalt and pulverized minerals facilities.

"Right now, all of the existing registry programs are voluntary," says John Hayden, NSSGA vice president of Environment, Safety and Health. "However EPA's GHG reporting program was authorized by the 2008 fiscal year spending legislation for the agency, with Congress providing \$3.5 million for EPA to require mandatory reporting of GHG emissions above appropriate thresholds in all sectors of the economy. So anticipating what EPA and

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The GHG registry is considered by policy makers to be vital to the eventual development of a federal cap-and-trade program.

NSSGA’s calculator, in an Excel spreadsheet format, is based on GHG inventory procedures that have been developed by recognized leading organizations such as the World Resources Institute and the California Climate Action Registry. NSSGA’s GHG inventory protocol calculates GHG emissions based on a site’s purchased electric power, and fuel use for mobile and stationary sources.

To use the calculator, members – for whom the tool is free and downloadable from the members-only portion of our Web site (www.nssga.org/members) – provide two simple inputs for each site: a ZIP code (from which the program then determines the type of purchased power the member uses, such as coal-fired or hydroelectric, and its cost per kilowatt-hour); and the type and amount of fuel used for the equipment used onsite (such as propane, diesel or gasoline). Members would determine fuel use amounts from monthly or annual fuel purchase data kept for their own records. From that, the calculator will determine the amount of GHG emissions created at the site.

“We’re also hopeful that member companies who use our voluntary tool will be willing to anonymously share their GHG emissions results with NSSGA. That critical feedback will allow NSSGA to make definitive statements as to the GHG emissions potential from the construction material sources located at our facilities,” said Hayden.

In any case, NSSGA members will already know their GHG emissions and where they fall under these federal reporting thresholds.

NSSGA’s investment in this GHG calculator has totaled about \$30,000. Any company or association wanting to create a similar tool would pay a similar amount for its development, according to Hayden. “To my knowl-

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The GHG calculator provides reportable data for other stakeholders such as the media, neighbors, elected officials, environmental groups and stockholders. Further, when the regulatory agencies and standards-setting organizations begin to establish “cap-and-trade” programs for GHG emissions, companies that find their emissions are less than the federal GHG thresholds may be able to bank or sell their credits that exceed the thresholds.

edge, we’re the only group in the construction materials industry to come out with such a simple program for our members,” he says, explaining that this is just one more example of the value members receive from their NSSGA dues. “If you average the cost of this calculator over the number of our producer members, the cost per member for a tool of this magnitude is low – especially since the tool is now provided through members’ paid dues at no additional cost to them.”

Hayden says there is pride involved in working for an organization that is proactively helping its members in anticipation of future regulation and legislation – rather than reacting after the federal government has mandated action. “It says something about the business model of our association,” he says. “For our members’ money paid in dues, we are working diligently to develop technically sound and legally defensible tools for our membership, such as this GHG calculator – and we’re working on it now, rather than later. This is a huge benefit, and I hope our members will use it with a proactive mindset, as well.”

Level #	Material Type	Quantity	Unit	Emissions Factor	CO2e	CH4	N2O	HFC	PFC	SF6	Total GHG Emissions	CO2e	CH4	N2O	HFC	PFC	SF6	Total GHG Emissions
1	Concrete	1000	cu yd	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
2	Rebar	1000	lb	0.0001	100	0	0	0	0	0	100	100	0	0	0	0	0	100
3	Gravel	1000	cu yd	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
4	Sand	1000	cu yd	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
5	Asphalt	1000	cu yd	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
6	Brick	1000	sq ft	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
7	Block	1000	sq ft	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
8	Insulation	1000	sq ft	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
9	Roofing	1000	sq ft	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
10	Paint	1000	gal	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
11	Sealant	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
12	Adhesive	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
13	Glue	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
14	Wax	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
15	Grease	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
16	Oil	1000	gal	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
17	Antifreeze	1000	gal	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
18	Brake Fluid	1000	gal	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
19	Transmission Fluid	1000	gal	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
20	Hydraulic Fluid	1000	gal	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
21	Engine Oil	1000	gal	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
22	Grease	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
23	Wax	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
24	Sealant	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
25	Adhesive	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
26	Glue	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
27	Wax	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
28	Sealant	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
29	Adhesive	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000
30	Glue	1000	lb	1.0	1000	0	0	0	0	0	1000	1000	0	0	0	0	0	1000