

IAAP Sustainability Award Application

Your award entry should include this page as its cover with information completed in the box below and responses to the suggested topics outlined above. Provide no more than two more pages (12-point font with at least 1 inch margins) describing your sustainability efforts.

Company Name: Thelen Sand and Gravel

Facility Name: Antioch Pit

Your Name and Job Title: Gary O'Toole/ Director of Safety & Environmental Services

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Are you, or an employee of your company, an active member (participating in conference call meetings) of the IAAP Sustainability Committee? X YES NO

If YES (and it's not you), name of committee member: _____

Thelen Sand & Gravel Solar Project

Using reclaimed land for a critical human resource – electricity.
Fits perfectly into the Thelen Land Ethic & Sustainability Effort



Thelen Sand & Gravel is a land company, not just a mining, farming & compost company. These activities are how we utilize the land before reclaiming it for other uses such as individual homes and recreational areas.

The Solar Field, located in Antioch, Illinois is a new repurposing and sustainable venture. The ^{7.5}5 acre site was previously mined, used as certified Clean Construction Demolition and Debris site and is now reclaimed land for a consumable renewable resource.

This is the largest "Behind the Meter" solar project in Illinois. This is renewable energy generating facility that produces power for on-site use.

Solar Statistics:

1. Total system size: 1,996.5 kWdc (1850 kWac)
2. Number of panels: 7,260
3. Angle of racking: 20 degrees
4. Number of inverters: 37
5. Number of transformers: 1 2000 kVA 480Y/277V to 12.47 KV Delta PV System Step-Up Transformer to interconnect to ComEd's 12.47kV distribution line
6. Estimated annual production : ~2.6 GWh / year
7. Estimated lifetime production: ~72 GWh
8. The installation will produce about 30% of the annual energy needs
9. Local labor sourced from Urban League funded through the Future Energy Jobs Act
10. Annual CO2 reduction of 5,720,000 lbs / year ... if electricity were generated by Coal Power Plant
11. Lifetime CO2 reduction of 160,670 ilbs ... if electricity were generated by Coal Power Plant (30 years)

We are providing our own power needs as well as helping to create a sustainable future, providing clean for decades to come.

This is an example of how we are engaging with the local community that demonstrates our commitment to Environmental Stewardship. Thelen's stewardship for the land with its unique aspects of the company allows land usage to flow from farming to composing to mining and back to farming while all working in harmony to keep the land in a productive state. The solar field allows Thelen Sand & Gravel to reduce our footprint and ensure the conservation and preservation of natural resources for the sake of future generations.

Thelen Sand & Gravel, Inc. is committed to managing our environmental impact as an integral part of daily operations. We as a company continually strive to maintain business practices, land stewardship and reclamation techniques that are beneficial for the community, natural habitats and incorporate and utilize the "4 R's": Reduce, Reuse, Recycle and Reclaim. Specifically, it is our policy to assure the environmental integrity of our processes and facilities at all times. We do so by adhering to the following principles:

- We will provide a **safe and healthy** workplace and ensure that all personnel are properly trained with the appropriate safety and emergency equipment.
- We employ management systems and procedures specifically designed to **minimize** the use of hazardous materials, energy and other natural resources, to minimize the generation of waste and to enable **recycling & reuse** of materials.
- **Reduce** the use of, and potential impact to natural resources such as water and minerals by implementing sustainable mining practices.
- Continual **reuse** of resources such as water, overburden and yard waste as part of reclamation processes.
- Accept Clean Construction Demolition Debris (CCDD) in accordance with IEPA permit as part of the **reclamation** process to reestablish prior grades of excavated areas and prevent overburden of landfills.
- **Reclaim** land for passive and active recreational, agricultural and future building which results in more natural vegetation and less soil erosion
- Strive to work with **sustainable** suppliers and vendors as well as purchase sustainable products.
- Manufacture, market and sell **sustainable** products which include recycled asphalt and concrete, fines from processing and yard waste.
- **Meet and exceed** all applicable Federal, State, and Local environmental, safety and health regulations and standards.
- Strive to continuously **improve** our commitment to the above-stated principles through improved technology, production changes and due diligence.

This sustainability is documented through the use of an electronic data management system that allows all employees to be a part of improving not only our products but our processes as well. Multiple reports and records are submitted electronically and subject to audits to determine steps for furthering our environmental management not only for the benefit of our company but our community as well.