Energy Issues

What you need to know about oil, gas, shale, wind and solar panel leases

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Going Green – Wind and Solar Energy

Overview

- Two basic ways to incorporate wind or solar in your school districts:
  1. District owns, operates and maintains its own system; or
  2. Third-party developers
- Financing issues and practical pointers

Financing District Ownership

Many ways to finance and own an advanced energy system:

- Tax-exempt General Obligation Bonds, including HB 264;
- Lease-purchase (rather than commercial loan);
- Qualified Energy Conservation bonds; or
- Other traditional funding sources.

HB 264 Projects

House Bill 264 Projects: Ohio Revised Code Sections 133.06(G); 3313.372 and 3313.373 (H.B. 264) establish procedures for school districts to:

- Procure
- Implement
- Finance

"Energy conservation measures"

In addition to insulation, storm windows HVAC, and lighting, Ohio law allows HB 264 projects to include:

Cogeneration systems that produce steam or forms of energy such as heat, as well as electricity, (e.g. wind turbines, solar panels, etc.)

Practical Pointers

- Take advantage of the creativity and expertise of your contractor:
  - Let them propose a solution that you can refine, rather than narrowing the location, scope of work, or technology options at the start;
  - Using an experienced company can result in a better overall project, rather than just addressing the low hanging fruit.
- Keep any OFCC or financing requirements in mind as you move through the process.

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Practical Pointers

- For greater efficiency, consider choosing an entity with a proven track record and the ability to manage the entire project for you from initial proposal through final OSFC reports.
- Pay attention to the math!

Practical Pointers

If you own it, the construction and operation risk remain with the school district

- Renewable energy technology risk (do your homework on the technologies proposed)
- Renewable energy resource risk (e.g. lack of wind, sun, etc.)
- Construction and operation risk
- Pay attention to maintenance costs and responsibilities
- REC ownership is risky — don't count on this to finance your project

Third-Party Ownership

- Board also may contract with third parties for solar, wind or other systems
  - District hosts the system and provides an easement to the roof or land.
  - Developer owns, installs and maintains the system for at least five years.
  - Developer sells energy back to the school, generally at a known rate over the contract term.

Financing Options for a Private Developer

- Treasury Investment Tax Credit (about 30% of project cost)
  - Not available to tax exempt entities
  - Allows accelerated depreciation
  - Project Owner must hold the project for at least five years
- Depreciation

Financing Options for a Private Developer

- Various state, federal or utility company grants, loans or other funding (anywhere from 5% to 30% of project cost)
  - Usually only project owner (e.g. developer) is eligible
- Renewable Energy Credit sales

Renewable Energy Credits

Renewable Energy Credits ("RECs") or "Green Tags"

- The intangible attributes of green energy
- Usually retained by the system owner and factored into the cost of the project
- Purchased by utilities and others to meet renewable portfolio standards or support marketing claims
- Important to know who will own any RECs and what limitations there may be on district's statements about green energy

Third-Party Ownership

That leaves the balance of entire project cost to be paid:

- District purchases energy from the developer for a known cost
- Power Purchase Agreement (PPA) or Solar PPA (SPPA) or Energy Services Agreement

Power Purchase Agreement

- Energy costs are generally competitive per KWh pricing
  - Fixed over the entire term
  - Start rate with modest escalator of a set percentage per year (2.5% to 4%)
  - Can "index" at a set percentage below going market rate
- Term can be anywhere between 5 to 25 years

Developer Responsibilities

- Pay up-front costs
- Responsible to obtain all grants and credits
- Prepare agreements and permits
- Designs and constructs the system
- Responsible for system maintenance and upkeep and insurance
- Bills the district monthly for energy delivered

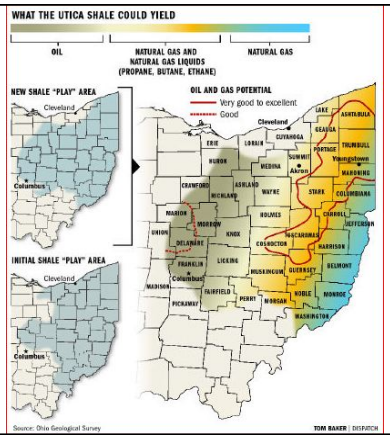
District's Responsibilities

- Provide adequate space
- Provide access to system for maintenance and repair
- Cooperate with utility on necessary agreements
- Pay the bills
- Consider leveraging educational elements

Things to Consider

- Who owns the RECs?
- Who obtains the benefits of any net-metering?
- Is there an exclusivity clause in existing utility agreement?
- Are there any hidden costs (taxes, permits, interconnection agreements)?
- Is there a learning opportunity?
- What happens at termination?
- Pay attention to tax issues and shifting tax liability
- Will interconnection be a problem?
- Calculate the power costs and usage carefully!

Shale Oil and Gas 101



Oversight of Drilling in Ohio

- Ohio Department of Natural Resources (Division of Oil and Gas Resources Mgmt.)
  - R.C. 1509.02 (preemption of local regulation)
    - ODNR retains the "sole and exclusive authority to regulate the permitting, location and spacing of oil and gas wells and production operations within the state.
    - The regulation of oil and gas activities is a matter of general statewide interest that requires uniform statewide regulation, and this chapter and rules adopted under it constitute a comprehensive plan with respect to all aspects of the locating, drilling, and operating of oil and gas wells within this state, including site restoration and disposal of wastes from those wells."

Marcellus and Utica Shale Permits

(as of July 30th)

- Marcellus Shale permits/wells
  - 17 permits, 7 wells drilled
  - 13 of them in Belmont and Monroe Counties
- Utica Shale permits/wells
  - 297 permits, 105 horizontal wells drilled

http://www.ohiodnr.com/oil/shale/tabid/23174/Default.aspx

The Development Process

Well site in PA

http://marcelluscoalition.org/2009/01/drilling-process-video/

Hydraulic Fracturing

- What is hydraulic fracturing?
  - The process of injecting a highly pressurized mixture of water, sand and chemicals into shale formations to stimulate gas production.
- What's in the frac fluid?
  - Water
  - Sand
  - Chemicals
- www.FracFocus.org

District-Owned Property

Schools

- ORC 3313.45
  - "When, in its opinion, the **school district would be benefited** thereby, the board of education may make, execute, and deliver contracts or leases to mine iron ore, stone, coal, **petroleum, gas**, salt, and other mineral[s] upon lands owned by such school district"
  - Lease can be for more than 15 years
  - Mandatory forfeiture upon non-compliance
- ORC 3313.451
  - "The board of education of any school district may contract with a geologist experienced in making such reports for a report on the feasibility of exploring for petroleum and gas on property owned by the board"

Practical Considerations for School Districts

- Drilling vs. non-drilling lease
  - Non-drilling or non-surface use lease preferred for school districts
- Public records
  - Recording of lease vs. lease memorandum
- Community relations
  - Public meetings, public opposition, education

Oil and Gas Lease Terms

- Granting Clause
  - Grants the developer certain rights
    - Use of water, oil or gas from landowner's property?
    - Disposal or injection wells?
      - Class II injection wells vs. oil and gas wells
    - Gas storage rights?
    - Roads and pipelines?
  - Identifies the minerals being leased
    - Only oil and gas (everything else reserved to landowner)
  - Reservation of shallow rights?

Oil and Gas Lease Terms

- Term Clause (aka habendum clause)
  - Establishes the duration of the lease
- Primary term of five years
  - Renewal option + new bonus payment
- Secondary term
  - Operations
  - Production in "paying quantities"

Oil and Gas Lease Terms

- $$$$
  - Up-front, per acre bonus
    - Payable within 60-120 days
    - Conditions precedent to payment
      - Management approval (BAD!!!)
      - Title
  - Royalties (oil, gas, liquids)
    - Gross vs. net royalty
    - Market enhancement
    - Traditional (12.5%) vs. shale (more than 15%)
  - Free gas vs. payment in lieu of free gas
    - Fixed amount, variable, royalty
  - Spud fee

Oil and Gas Lease Terms

- Unitization/pooling (combining tracts of land or leases for drilling wells)
  - Maximum size for horizontal and vertical wells
    - 40-160 acres (vertical well)
    - 640 or 1,280 acres (horizontal well)
  - Proportional share of the royalties
  - Copies of unit surveys
- Mandatory pooling (R.C. 1509.27)
- Pugh clauses
  - Horizontal
  - Vertical

Questions?

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Shale Ohio Blog: www.shaleohio.com
Ohio Green Strategies Blog: www.ohiogreenstrategies.com

Legal Authority to Enter into Oil and Gas Leases on Public Lands in Ohio

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Legal Authority to Lease Public Lands

I. Counties

- **ORC 307.11** – provides a board of county commissioners with authority to execute mineral leases "[w]hen the county would be benefited"
    - County commissioners retain broad discretion to establish the terms and conditions of the lease
    - Lease term cannot be longer than 40 years
    - Statutory consideration is rental or royalty payments made payable to the county auditor at least once per year

II. Townships

- **ORC 505.11** – provides a board of township trustees with the authority to execute oil and gas leases when the "township would be benefited"
    - Nearly identical statutory language as counties

III. Municipalities

- **ORC 721.01** – provides a municipality with the general authority to execute leases when property is "not needed for any municipal purpose"
    - **Home Rule vs. ORC 721.03**
        - **ORC 721.03 –** lease of municipal property requires: (i) an ordinance authorizing the lease; (ii) 2/3 vote of the municipality's legislative authority; (iii) authorization by the board or officer managing the real estate; (iv) a written lease agreement; and (v) compliance with competitive bidding rules
            - Municipality retains power to reject and rebid
        - **Home Rule** – *Great Plains Exploration, LLC v. City of Willoughby* (11th Dist, Dec. 29, 2006), 2006 Ohio 7009, 2006 Ohio App. LEXIS 6958
            - A municipality's charter governs. Follow it!

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Key Considerations for Shale Oil and Gas Leasing in Ohio

The Oil and Gas Lease						
	The Granting Clause	**Habendum Clause (Lease Term)**	**Royalty Clause**	**Surface Disturbance Provisions**	**Utilization/Pooling**	**Other Landowner Protections**
Purpose	• Identifies the oil and gas company's rights (e.g., right to explore, develop, produce) • Lists the minerals available for development	• Sets forth the duration of the lease	• Establishes the primary financial terms of the lease	• Limits what can be done on your property and where it can be done • Establishes parameters for restoring the surface and repairing damage	• Combining tracts of land or leases for the drilling of a well or wells over a larger number of acres	• Additional lease terms necessary to maximize the protections available to landowners
Issues to Consider	• Can your oil and gas company install roads, power lines, compressor stations or pipelines on your property? • Should the oil and gas company have the right to develop minerals other than oil and gas (e.g., coal, coalbed methane, gravel)? • Can the oil and gas company install pipelines and other facilities to transport or treat gas and liquids not actually produced on your property?	• How long should the primary term be? (generally 1-5 years) • What triggers the secondary term? Operations? Production? Payment of money? • What does the lease say about automatic termination or forfeiture? • The duty to develop	• Traditional royalty (12.5%) vs. higher royalty for shale (more than 15%) • Gross royalty vs. net royalty (oil and gas company deducts certain post-production costs before paying royalty) • Right to audit and verify the accuracy of royalty payments • How should shut-in royalties be treated? • Availability of free gas vs. payment in lieu of free gas	• Drilling vs. non-drilling lease (prohibits surface disturbances) • Installation of fencing and gates; limitations on locations of wells, compressor stations, pipelines; standards for restoration of disturbed surfaces; removal of timber; addressing crop damage • Limitations on the use of water from your property	• How large of a unit can be created using your property? 40 acres? 640 acres? • Will all of your property be included in the unit? • Consider the use of a Pugh clause (releases acreage and formations not included in drilling unit)	• Up-front bonus payment (how much are you willing to take per acre?) • Requirements for pre- and post-drilling groundwater testing • Indemnification language, including an environmental indemnity • Insurance requirements (e.g., minimum CGL policy including pollution and blowout coverage); addition of landowner as additional insured • Right of assignment (is your consent required after receiving notice?) • How and where are legal disputes to be handled?

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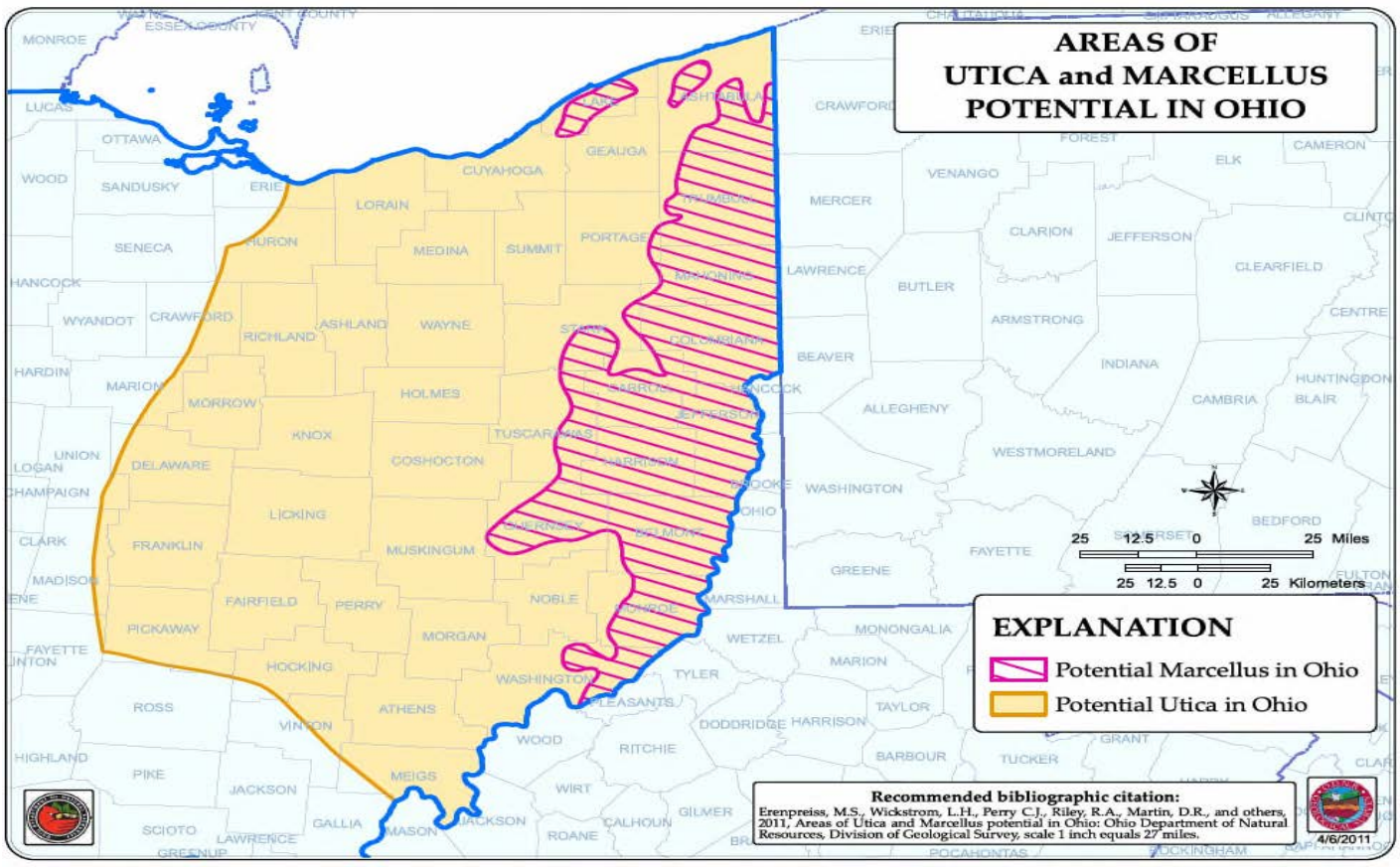
Utica and Marcellus Shale Development for Ohio Schools

Recent technological advancements have made it possible to produce oil, natural gas, and certain liquids (such as ethane, methane, and propane) from deep shale reservoirs in the State of Ohio. However, oil and gas development is not new to Ohio. According to the Ohio Oil and Gas Association (OOGA), oil from a drilled well was first discovered in Ohio in 1814 when "a saltwater well driller discovered oil at a depth of 475 feet in Noble County." The first commercial oil well went into production several decades later in Washington County. Since that time, the Ohio Department of Natural Resources (ODNR) reports that more than 275,000 oil and gas wells have been drilled in Ohio, ranking Ohio fourth in the nation behind Texas, Oklahoma, and Pennsylvania.

The Marcellus and Utica Shale

Ohio is well-positioned in the two large shale plays in the Appalachian Basin. The first, known as the Marcellus Shale, is located thousands of feet below the surface in southeastern Ohio, eastern West Virginia, much of Pennsylvania, and portions of New York and Maryland. As one of the largest deposits of natural gas in the United States, the Marcellus Shale reservoir is estimated to contain enough gas to meet the entire energy demand in the United States for at least the next decade. The map below shows the general area of expected Marcellus development in Ohio. Although the area appears quite large, it is likely that development of the Marcellus Shale will be focused on the southeastern Ohio counties of Belmont and Monroe. As of November 27, 2011, ODNR has issued 11 horizontal drilling permits for the Marcellus Shale, eight (8) of which are in Belmont and Monroe Counties.

Located approximately 7,000 feet below the surface, and stretching across significant portions of eastern and central Ohio, the Utica Shale is rich in oil and liquid hydrocarbons (also known as "wet gas"). The Utica Shale play is expected to be the focus of developers in Ohio. As of November 27, 2011, ODNR has issued 76 horizontal drilling permits for the Utica Shale in Ashland, Ashtabula, Belmont, Carroll, Columbiana, Coshocton, Geauga, Guernsey, Harrison, Jefferson, Mahoning, Medina, Monroe, Muskingum, Noble, Portage, Stark and Tuscarawas Counties, but only 14 horizontal wells have actually been drilled.



Overview of Oil and Gas Leasing in Ohio

Large landowners in many Ohio counties, including many public landowners, will be (or already have been) approached by landmen, lease brokers, and large oil and gas company representatives to enter into oil and gas leases. There is no disputing the fact that the financial terms of modern oil and gas leases (where up-front bonus payments have reached as high as $5,800/acre and royalties have exceeded 20 percent) are mind-boggling. However, an oil and gas lease will be on your property for decades. Making sure that landowners, especially public landowners, have comprehensive, landowner-friendly oil and gas leases is not only important for your own protection, but also for the sustained use and development of your property.

Unlike conventional, shallower oil and gas operations that have been around Ohio for more than a century, the leasing and development of Utica and Marcellus Shale mineral rights are more complex. Traditional 2-3 page oil and gas leases are not sufficient. As the Ohio Farm Bureau emphasizes, "Landowners should request and expect longer, more detailed leases, and realize the importance of working with an attorney." The assistance of experienced legal counsel can be valuable in navigating the development process, determining the lands available for leasing, negotiating a fair and potentially lucrative lease, and providing appropriate protections in connection with the drilling and operation of wells on their property, including the environmental issues associated with them.

Statutory Authority for Public Landowners to Enter Into Oil and Gas Leases

Public landowners in the State of Ohio, including municipalities (ORC 721.01 and 721.03), townships (ORC 505.11), counties (307.11), school districts (3313.45), and the State of Ohio (House Bill 133), have the statutory authority to enter into oil and gas leases.

Ohio Revised Code Section 3313.45 authorizes boards of education to enter into oil and gas leases when the "school district would be benefited." This authority is being utilized by a number of school districts to provide supplemental revenue that is not dependent on existing state and local funding sources.

Under this statute, the board of education retains a high degree of discretion over the terms of the oil and gas lease. The only statutory limitations on such leases are that: (1) the lease must be forfeited upon non-compliance; and (2) all royalties paid under the oil and gas lease must go into the school district's general fund. Perhaps most importantly, there is no requirement in the statute that an oil and gas lease be competitively bid. Although it often is advantageous to a school district to conduct some sort of bidding or request for proposal (RFP) process when soliciting an oil and gas lease, there is no such requirement under Ohio law.

Key Considerations When Entering into an Oil and Gas Lease

There are many variables a property owner must consider before entering into an oil and gas lease, including the following:

• The geologic horizons being leased (*e.g.*, Marcellus Shale, Utica Shale) and whether shallow formations (e.g. Berea or Clinton) will be reserved to the landowner	• Financial terms of the lease (*e.g.*, the per acre bonus payment, gross vs. net royalties, royalty percentage, payments in lieu of free gas)
• Whether the lease will be a drilling or non-drilling lease	• Rights of assignment of the oil and gas lease
• Duration of the lease (primary and secondary term), including forfeiture provisions	• Water protection provisions (*e.g.*, pre- and post-drilling water testing) and water use limitations/prohibitions
• Unitization (*e.g.*, pugh clauses, size and shape of drilling units)	• The method of verifying royalty payments (*e.g.*, audits)
• Insurance provisions	• Environmental and other indemnity provisions
• Surface use prohibitions (*e.g.*, landowner approval of location of equipment, roads, pipelines; setbacks from residences)	• Whether the lease or a memorandum of lease will be recorded
• Restoration/damage/non-disturbance provisions	• Minerals being leased (*e.g.*, oil and gas only, liquids)

Hydraulic Fracturing and Horizontal Drilling

Utica and Marcellus Shale development also presents special challenges in terms of community relations and the rights of adjoining landowners based on its use of two technologies– horizontal drilling and hydraulic fracturing:

- Horizontal drilling begins with a vertical well bore that gradually extends horizontally over a distance that can exceed one (1) mile. This technology allows for increased production of oil and gas.
- Hydraulic fracturing is the process of injecting a highly pressurized mixture of water, sand and chemicals into shale formations to crack the rock and stimulate oil and gas production.

Because the fluid used in the hydraulic fracturing process is primarily comprised of water, enormous volumes are required for the "fracking" of a single Marcellus or Utica shale well. In fact, there are estimates that a single well going through the hydraulic fracturing process will use more than four (4) million gallons of water obtained from water on the landowner's property, public water supplies or water wells. In addition, and due to the high internal pressures within the Marcellus and Utica shale formations, a significant amount of "flowback" returns to the surface within 7-10 days of being pumped into the well. The flowback carries minerals (such as calcium and sulfur), suspended solids, soluble salts, and low-levels of naturally occurring radioactive elements (such as radium). The end product is a low salinity wastewater solution that must be properly disposed of by the producer, generally in Class II injection wells. In fact, the disposal of used "frac" fluids in Ohio is virtually always accomplished through injection in such wells. Other methods of disposal include recycling and treatment and public wastewater treatment works.

Because of the public debate over these technologies, especially hydraulic fracturing, public landowners and oil and gas developers may face opposition from local residents and environmental groups. Landowners, especially public landowners, need to effectively protect themselves from environmental problems and political concerns, and to develop an education plan for members of the community. More information about shale development and these technologies can be found at Bricker & Eckler LLP's Shale Resource Center (www.bricker.com/shale).

For more information on Utica or Marcellus Shale development, or assistance in leasing negotiations, please contact Matt Warnock at 614.227.2388 (mwarnock@bricker.com), Glenn Krassen at 216.523.5469 (gkrassen@bricker.com), or any of the attorneys of the Education Practice Group *by calling 614.227.2300.*

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