Public Comment 5

ISO Auction Shows That Invenergy's Proposed Plant Is Not Needed

Feb 12, 2016 Jerry Elmer

Readers will recall that the two major arguments used by Invenergy in support of its plan to build a gigantic (900 MW to 1,000 MW) fossil-fuel power plant in Burrillville, Rhode Island, are that the plant is needed for the reliability of the electricity grid and in order to save ratepayers money. Both of these arguments are predicated on the supposed shortage of existing electricity generation capacity in the geographical part of New England's electricity grid that includes Rhode Island.

On Monday, February 8, 2016, ISO-NE, the entity that runs the New England electricity grid, conducted its tenth annual Forward Capacity Auction (called FCA-10) to procure electricity generation capacity for the zone that includes Rhode Island. As a result of the auction, we learned something very important: both of Invenergy's primary arguments are wrong.

The ISO's figures don't lie; they tell a very simple, straightforward story:

- The Invenergy plant's power is not needed in Rhode Island; we actually have a surplus of power without Invenergy.
- The Invenergy plant, if built, would have a negligible effect on the price that ratepayers pay for electricity.

Let's look at the actual figures from the just-concluded auction.

Invenergy tried to sell all 900 to 1,000 MW of its proposed new plant in the auction, but the ISO only took 485 MW of that amount. Invenergy ended up with a Capacity Supply Obligation (CSO) of only 485 MW!

Overall, the ISO was trying to obtain 34,151 MW of generation capacity for the six New England states. This is the ISO's Installed Capacity Requirement (ICR), the amount of electricity needed to meet peak demand in New England and still keep the lights safely on. In fact, the ISO actually procured 35,567 MW in the auction, that is, 1,416 MW more than was required.

The results here in the Southeastern New England (SENE) zone were similar. For the SENE zone, the ISO had a so-called Local Sourcing Requirement (LSR) of 10,028 MW. That means that 10,028 MW (of the 34,151 MW total) had to come from generation plants located here in Southeastern New England.

That is the key figure: 10,028 MW of generation had to come from generation plants located here in Southeastern New England.

In the auction conducted on February 8, the ISO actually procured 11,384 MW here in Southeastern New England – that is, fully 1,356 MW more than the LSR of 10,028 MW that was needed!

What would happen if you removed all of Invenergy's CSO of 485 MW from the 11,384 MW that cleared the auction in the SENE zone? You would be left with 10,863 MW in the zone – still significantly more than the LSR of 10,028 MW needed locally.

The bottom line is very, very simple: the Invenergy plant is just not needed for system reliability. It is not needed to keep the lights on. Rhode Island, Southeastern New England (SENE), and all of New England have a surplus of generation capacity without Invenergy's proposed plant.

Nor are there ratepayer savings from the Invenergy plant. Invenergy's (incorrect) argument about ratepayer savings is predicated on the idea that the price for capacity here in the SENE zone would be much higher than in the rest of New England (called "Rest of Pool" by the ISO). (In fairness to Invenergy, that was true in the prior two capacity auctions run by ISO: FCA-8, which was held two years ago; and FCA-9, held one year ago.) But it was absolutely not true in FCA-10, conducted on February 8 this year.

In FCA-10, the SENE zone cleared the auction at $7.03/KW-month, and Rest of Pool cleared the auction at $7.03/KW-month – the exact same clearing price. This stands to reason. There was no shortage of generation capacity here in the SENE zone. That's why there was no "price separation" between the SENE zone and the Rest of Pool.

And that's why the presence or absence of the Invenergy plant will have no material impact on ratepayers. Again, this stands to reason: if the presence Invenergy plant's power was going to help save money for ratepayers, then the ISO would have taken all of Invenergy's 900-1,000 MW. The reason that the ISO wasn't even interested in buying all of Invenergy's generation capacity is that Invenergy's capacity just wasn't going to bring down the capacity clearing price. The capacity price was already as low as it could go.

I acknowledge that these figures can be confusing and these acronyms can cause a normal person's eyes to glaze over. But the bottom line remains simple. The electricity from the Invenergy plant is not needed; and the presence or absence of the plant will not materially affect the price of electricity.

This blog was taken from the website of Conservation Law Foundation, clf.org.

FACT SHEET: Natural Gas

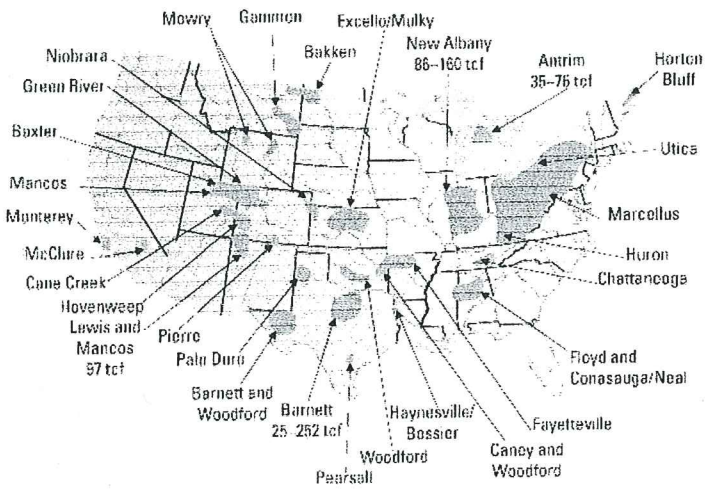
Energy Justice Network

Natural Gas Basics

Natural gas is a gaseous fossil fuel consisting primarily of methane, but includes significant quantities of ethane, propane, butane, and pentane – heavier hydrocarbons removed prior to use as a consumer fuel – as well as carbon dioxide, nitrogen, helium and hydrogen sulfide. Natural gas is not the "clean" fuel it's purported to be. Toxic metals like lead and mercury can be found organically-bound in natural gas, as can radioactive radon and other toxic contaminants. Natural gas is found "associated" with oil in oil fields, or can be found "non-associated" (dissolved or isolated in fields of natural gas), and in coal beds (as coalbed methane). Since the 1990s, with the development of slickwater hydraulic fracturing, massive shale formations across the U.S. have begun to yield large amounts of natural gas.

In the late 1990s, there was a mad rush to build around 1,000 new power plants, nearly all of them natural gas fired. Grassroots community opposition stopped most of them, but about 400 were built. As gas prices started rising dramatically after in 2000, many of these power plants sat idle or operated only when necessary. Another mad rush of development followed, starting around 2003, as proposals for over 60 new liquefied natural gas (LNG) import terminals were proposed in North America (40 in the U.S.), so that gas could be imported from across oceans, requiring that we go to war for gas as well as oil. Only a few new terminals were built due to a combination of community opposition and falling gas prices – the result of the economic depression plus increased supply from new domestic reserves opened up by hydraulic fracturing.

98.5% of natural gas consumed in the U.S. comes to us via pipeline from the U.S. and Canada. However, natural gas production is nearing its peak in North America. Over the past decade, we're drilling more and more, but production is leveling off and will drop sharply in the not-too-distant future. The recent shale developments are providing a slight recent surge in domestic production, but the hype will likely be short-lived since the typical shale gas well declines 81% in the first two years of production. World-wide, natural gas production will peak in a plateau between 2027 and 2045, before dropping dramatically.



Natural Gas Worse for the Climate than Coal

Methane, the principle component of natural gas, is 86 to 105 times as potent as CO_2 over a 20 year time frame. Gas is worse than coal for global warming if only 3.2% of the gas leaks from wells, pipelines and compressors, yet leakage rates from gas fields has been found to range from 4-9% and system-wide losses can be far higher.

Hydraulic Fracturing

Hydraulic fracturing is a natural gas extraction process by which water, usually mixed with highly toxic chemicals, is forced down a drilled well at extremely high pressure to create or expand fractures, releasing gas trapped in rock formations. Proppants (small particles such as sand or synthetic beads) hold open the newly-created fractures so that released gas can flow toward the well. The process is also known as fracking or hydrofracking.

When drilling for gas in geologic formations where the gas is tightly bound in rock ("low-permeability gas reservoirs"), hydraulic fracturing is used in combination with horizontal drilling, in which the drill bit is gradually turned sideways to penetrate long distances away from the vertical well bore (hole). Because of the very large quantities of water and pressure needed for this process, it is called horizontal drilling / high-volume hydraulic fracturing, or HD/HVHF.

HD/HVHF is an industrial activity and the areas where it is used become polluted industrial zones. Rural areas are often exploited, but suburban and urban areas are increasingly subjected to an invasion of heavy equipment and dangerous activities.

Water

HD/HVHF gas wells can require anywhere from 1 to 9 million gallons of water per "frack." Wells have to be re-fracked approximately every 5 years to restimulate production. Such high water use creates issues such as where to obtain it, traffic and pollution from getting hundreds of heavy truckloads of water to the drill site, deliberate contamination of the water, and trucking all of the wastewater away to be disposed of somewhere. Wastewater must be stored onsite at least temporarily, leading to repeated problems with leaks and overflow during heavy rains. Additionally, ancient "formation water" may be released in the well completion process. This 'brine' is typically far saltier than seawater and presents serious disposal issues. Spills and other unintended releases are inevitable industrial accidents. Clandestine dumping is widely suspected and has been reported.

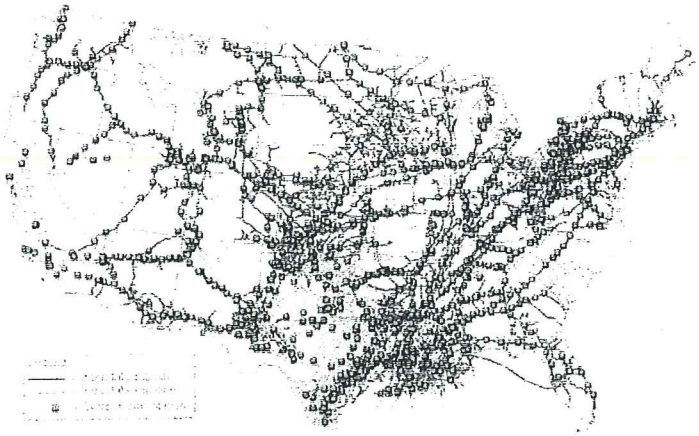
Chemicals & Sand

The chemicals used in hydraulic fracturing are known to cause a wide variety of health problems. Increasingly, reports from affected areas indicate a prevalence of serious and incurable disorders in people and animals living near natural gas extraction or transmission facilities (pipelines and compressor stations). Even the special sand used as a proppant has a destructive effect on the communities where it is mined. See www.ccc-wis.com

→ What happens to the cost of human life when there is no more clean water to drink and bathe in or clean air to breathe.

Pipelines & Compressor Stations

Natural gas is transported with networks of pipelines, with smaller gathering lines joining into larger interstate pipelines and branching out again to reach various markets. Pipeline routes are dotted with compressor stations, where energy is consumed to pressurize the gas to keep it moving – sometimes thousands of miles until it reaches its destination. Compressor stations run continuously and are very noisy. Pipelines cut through forests, farms and residential neighborhoods and even run under rivers and lakes, disturbing a variety of environments, sometimes in very damaging ways, like where toxic sediments on lake bottoms are stirred up by "jet trenching" used to bury pipelines in a lake bed. Pipeline routes are frequently established through the process of eminent domain (government taking of private land). The aging pipeline infrastructure leads to frequent leaks, which regularly produce explosions that are costly in property damage and lives lost.



Power Plants

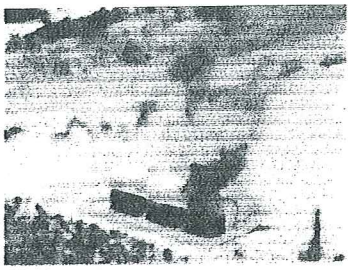
68.5% of natural gas is used for heating industrial processes, homes and businesses. 2.8% is used in transportation. The remaining 28.6% is burned in power plants to make electricity. After approximately 400 new gas-burning power plants were built since the late 1990s, there is now 37% more natural gas electric generating capacity than coal. However, more than half of that capacity is not used (which is why coal provides three times more electricity than gas does).

Natural gas burning power plants are major air polluters, releasing carbon dioxide (CO_2), nitrogen oxides (NOx), sulfur oxides, fine particulate matter, ammonia, volatile organic compounds and a long list of toxic and hazardous air pollutants, such as lead, mercury, benzo(a)pyrene and polycyclic aromatic hydrocarbons. A single 1,000 MW gas plant can legally release over 3 million pounds of regulated air pollutants a year, including 40 pounds of lead, 28 pounds of mercury and over 33,000 pounds of hazardous air pollutants, many of which cause cancer. This doesn't count CO_2, since CO_2 isn't yet regulated. As little as 0.002 pounds of mercury deposited annually into a 20-acre lake can contaminate fish to a level where they're unsafe to eat.

Noise

Heavy truck traffic, drilling, and fracking are all extremely loud and invasive for people living nearby. Extraction-related activities go on around the clock, 7 days a week. The development and completion of gas wells continues without letup, with one day of cessation per year: Christmas. In addition to this being intensely stressful, people living near compressor stations can develop a life-threatening condition called vibro-acoustic disease. Compressor stations and power plants (especially the air-cooled kind) are also significant noise polluters.

Air pollution

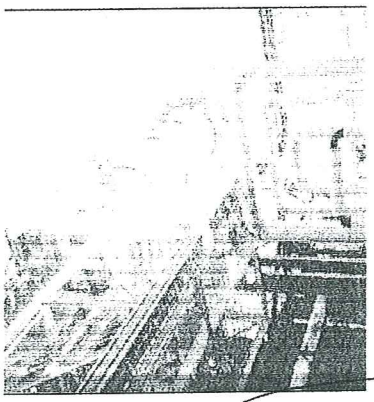


Invisible gas leakage (made visible) from gas storage tanks at a drilling site in Texas.

In addition to the air pollution from power plants, communities near drilling operations, compressor stations and natural gas storage tanks also suffer from polluted air. At drilling sites, this results from diesel exhaust from heavy truck traffic and from the extraction activities. Volatile organic compounds evaporate easily from the chemicals used in drilling and fracking, as well as from the extracted gas. In Fort Worth, Texas, in the Barnett Shale, natural gas storage tanks and compressors are thought to have as great a negative impact on air quality and be as great a cause of the increasing smog as all automotive traffic in the Metroplex. Recent video footage taken by the Texas Commission on Environmental Quality using an infrared camera clearly shows fugitive hydrocarbon emissions billowing from storage tanks. Storage tanks are designed for a certain legally-permitted amount of leakage. In the small town of DISH, Texas, where numerous pipelines and compressor stations have been built in recent years, there has been a corresponding die-off of trees, livestock have died of mysterious causes, and humans are developing a range of unusual medical problems.

Regulation

Over decades, the oil and gas industry has lobbied for and gotten exemptions from a wide array of federal laws, including laws requiring environmental impact statements, laws regulating hazardous waste and toxic site cleanup, laws requiring reporting of toxic emissions and laws to protect the air and drinking water. The industry lobbies to keep nearly all regulation at the state rather than federal level, saying that the states do a good job of regulating. The evidence strongly suggests otherwise.



Co-Authored by:
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Energy Justice Network **215-743-4884**

Oct 2009

www.un-naturalgas.org
www.energyjustice.net/naturalgas/

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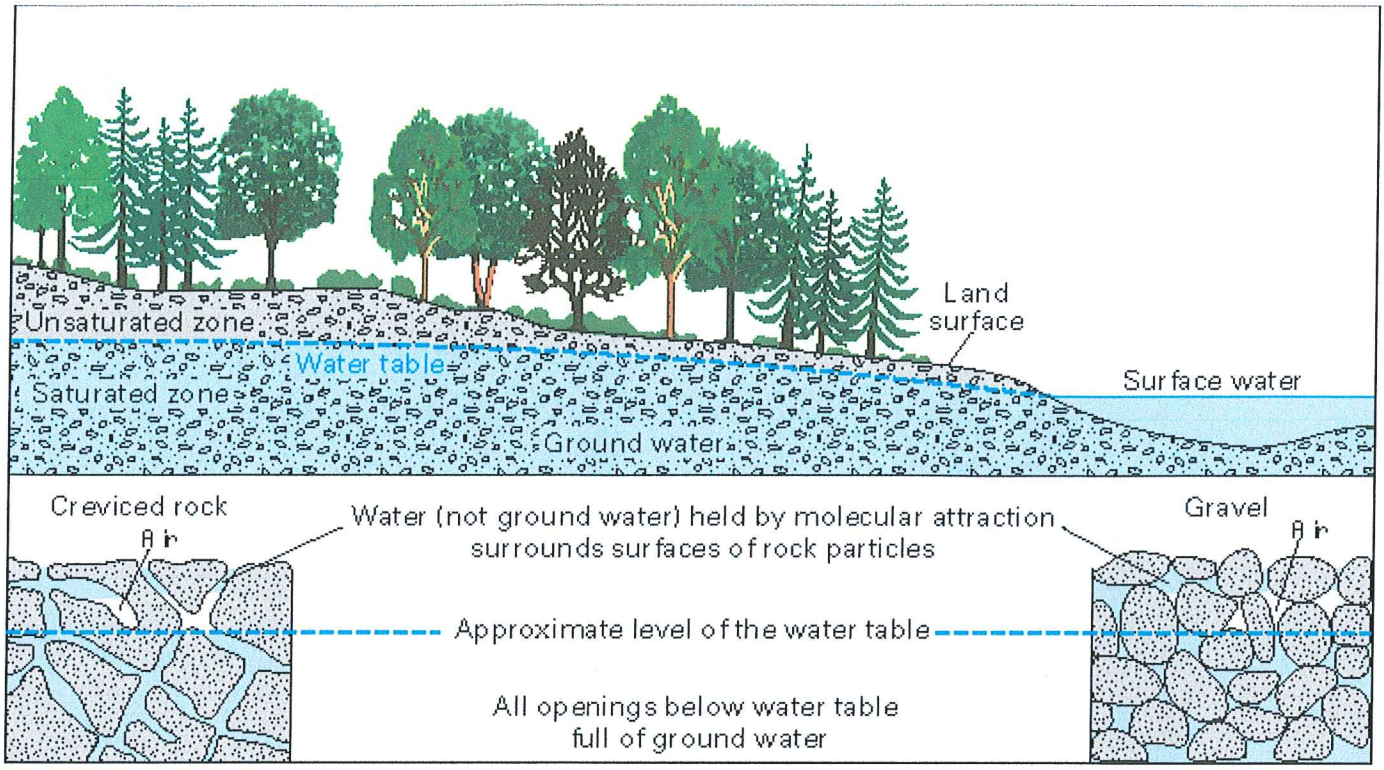
Aquifers and Groundwater

I hope you appreciate my spending an hour in the blazing sun to dig this hole at the beach. It is a great way to illustrate the concept of how, below a certain depth, the ground, if it is permeable enough to hold water, is saturated with water. The upper surface of this zone of saturation is called the water table. The saturated zone beneath the water table is called an aquifer, and aquifers are huge storehouses of water. What you are looking at in this picture is a "well" that exposes the water table, with an aquifer beneath it. Of course, I am cheating here, as at the beach, the level of the water table is always at the same level as the ocean, which is just below the surface of the beach.

Groundwater is one of our most valuable resource—even though you probably never see it or even realize it is there. As you may have read, most of the void spaces in the rocks below the water table are filled with water. But rocks have different porosity and permeability characteristics, which means that water does not move around the same way in all rocks below ground.

When a water-bearing rock readily transmits water to wells and springs, it is called an aquifer. Wells can be drilled into the aquifers and water can be pumped out. Precipitation eventually adds water (recharge) into the porous rock of the aquifer. The rate of recharge is not the same for all aquifers, though, and that must be considered when pumping water from a well. Pumping too much water too fast draws down the water in the aquifer and eventually causes a well to yield less and less water and even run dry. In fact, pumping your well too much can even cause your neighbor's well to run dry if you both are pumping from the same aquifer.

In the diagram below, you can see how the ground below the water table (the blue area) is saturated with water. The "unsaturated zone" above the water table (the greenish area) still contains water (after all, plants' roots live in this area), but it is not totally saturated with water. You can see this in the two drawings at the bottom of the diagram, which show a close-up of how water is stored in between underground rock particles.

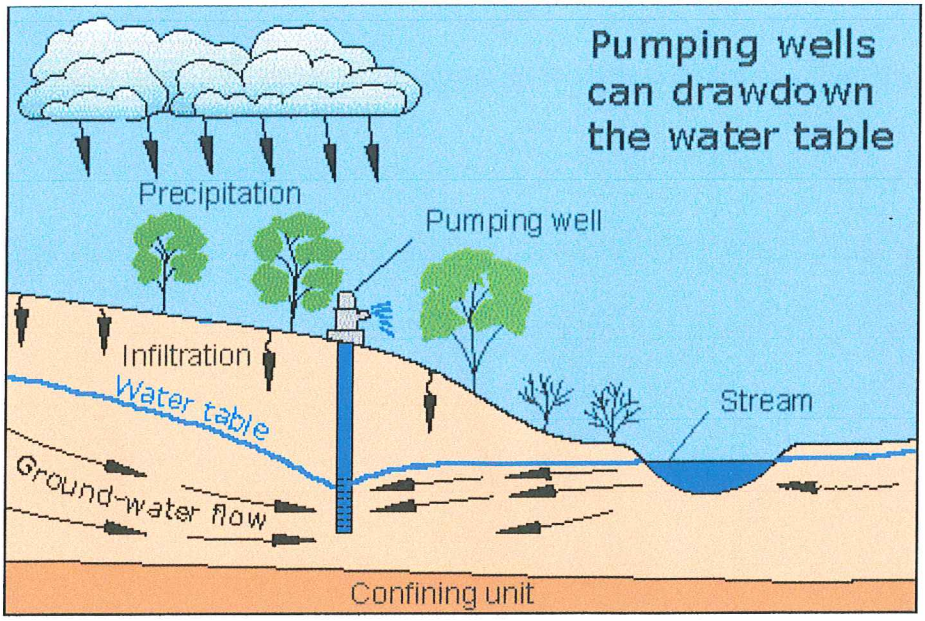


Sometimes the porous rock layers become tilted in the earth. There might be a confining layer of less porous rock both above and below the porous layer. This is an example of a confined aquifer. In this case, the rocks surrounding the aquifer confines the pressure in the porous rock and its water. If a well is drilled into this "pressurized" aquifer, the internal pressure might (depending on the ability of the rock to transport water) be enough to push the water up the well and up to the surface without the aid of a pump, sometimes completely out of the well. This type of well is called artesian. The pressure of water from an artesian well can be quite dramatic.

A relationship does not necessarily exist between the water-bearing capacity of rocks and the depth at which they are found. A very dense granite that will yield little or no water to a well may be exposed at the land surface. Conversely, a porous sandstone, such as the Dakota Sandstone mentioned previously, may lie hundreds or thousands of feet below the land surface and may yield hundreds of gallons per minute of water. Rocks that yield freshwater have been found at depths of more than 6,000 feet, and salty water has come from oil wells at depths of more than 30,000 feet. On the average, however, the porosity and permeability of rocks decrease as their depth below land surface increases; the pores and cracks in rocks at great depths are closed or greatly reduced in size because of the weight of overlying rocks.

Pumping can affect the level of the water table

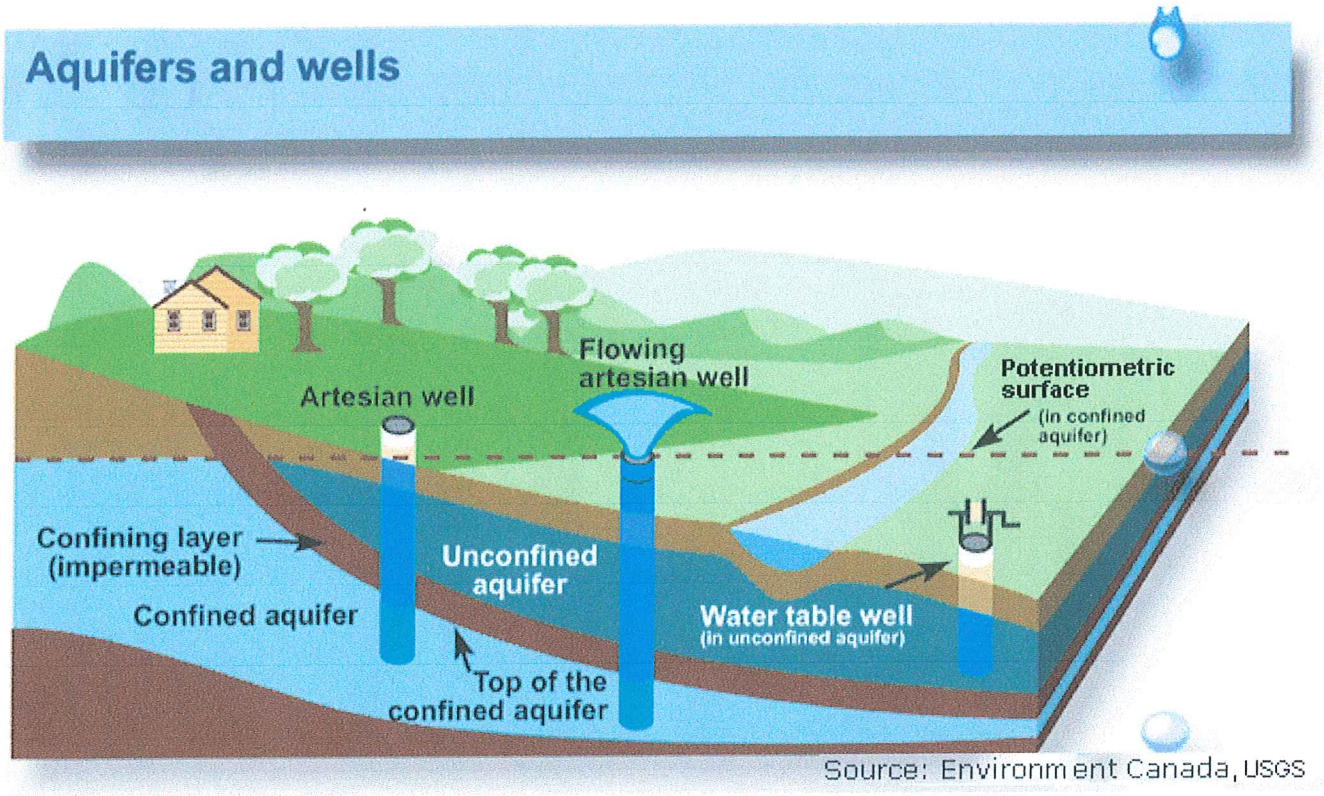
Groundwater occurs in the saturated soil and rock below the water table. If the aquifer is shallow enough and permeable enough to allow water to move through it at a rapid-enough rate, then people can drill wells into it and withdraw water. The level of the water table can naturally change over time due to changes in weather cycles and precipitation patterns, streamflow and geologic changes, and even human-induced changes, such as the increase in impervious surfaces on the landscape.



The pumping of wells can have a great deal of influence on water levels below ground, especially in the vicinity of the well, as this diagram shows. If water is withdrawn from the ground at a faster rate that it is replenished, either by infiltration from the surface or from streams, then the water table can become lower, resulting in a "cone of depression" around the well. Depending on geologic and hydrologic conditions of the aquifer, the impact on the level of the water table can be short-lived or last for decades, and it can fall a small amount or many hundreds of feet. Excessive pumping can lower the water table so much that the wells no longer supply water—they can "go dry."

Water movement in aquifers

Water movement in aquifers is highly dependent of the permeability of the aquifer material. Permeable material contains interconnected cracks or spaces that are both numerous enough and large enough to allow water to move freely. In some permeable materials groundwater may move several metres in a day; in other places, it moves only a few centimeters in a century. Groundwater moves very slowly through relatively impermeable materials such as clay and shale. (Source: Environment Canada)



After entering an aquifer, water moves slowly toward lower lying places and eventually is discharged from the aquifer from springs, seeps into streams, or is withdrawn from the ground by wells. Groundwater in aquifers between layers of poorly permeable rock, such as clay or shale, may be confined under pressure. If such a confined aquifer is tapped by a well, water will rise above the top of the aquifer and may even flow from the well onto the land surface. Water confined in this way is said to be under artesian pressure, and the aquifer is called an artesian aquifer.

Visualizing artesian pressure

Here's a little experiment to show you how artesian pressure works. Fill a plastic sandwich baggie with water, put a straw in through the opening, tape the opening around the straw closed, DON'T point the straw towards your teacher or parents, and then squeeze the baggie. Artesian water is pushed out through the straw.

Some information on this page is from "Ground Water and the Rural Homeowner, Pamphlet", U.S. Geological Survey, by Waller, Roger M.,,1982

Groundwater true/false quiz

Sources and more information

- Ground Water and the Rural Homeowner, USGS General Information publication, 1982
- Ground Water and Surface Water A Single Resource, USGS Circular 1139
- The Nature of Water: Environment Canada

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Wind

Energy Efficiency

RIWINDS Phase I Report

Wind Turbine Siting in Narragansett

State/ Narragansett Wind Turbine Partnership RFP

DEM Wind Turbine Siting Guidelines

Narragansett Clean Energy Survey Results

Narragansett Survey Mailing

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Simulation Photos of Potential Narragansett Sites

Meterological Tower

New England Greenstart

Narragansett Wind Turbine

Renewable Energy Information

Rhode Island's Future:

Issues dealing with energy, energy supply, and demand for energy currently and within the immediate and distant future are becoming increasingly relevant. In a time in which the supply of non-renewable fuel (oil, gas, coal or nuclear energy) is inconstant, expensive, and un-assured, the energy independence offered by renewable energy (wind, solar, hydrodynamic) is of great value. Additionally reduction of our demand through smart energy efficiency measures (proper seasonal design, green building, efficient appliances and practices) helps Rhode Island stay energy-independent and saves us money.

Rhode Island is in a unique position to lead the rest of New England, and the Nation, in becoming a leader in renewable energy technologies, in its production, installation, maintenance. Supporting this blossoming industry will create an example of a new green economy that brings sustainable jobs while also bringing energy independence, economical savings and reducing environmental impact. Wind, solar, energy efficiency, and other projects are being built all over the nation; this is Rhode Island's chance to be ahead of the pack, as a leader, when it comes to energy.

DEM:

The RI Department of Environmental Management's mission is to protect and manage the precious and valuable environment and resources Rhode Island has to offer. As energy use and environmental quality are intrinsically linked, DEM seeks to truly "walk the talk" when it comes to the smart use of energy.

DEM has begun to look at ways to reduce its use of energy through improvements in building design that are energy efficient. DEM is also looking at designing buildings that make use of solar and wind technologies that help minimize our use of non-renewable fuels.

In order to be a leader and serve as an example of successful environmental protection and smart energy usage, DEM currently has several clean energy projects underway. These include a wind energy partnership with the Town of Narragansett, and the installation of a LEED silver certified energy efficient green building at Salty Brine State Beach. DEM seeks to adapt its Narragansett facilities in order to save taxpayer money through these measures, as well as to promote the use and prove the viability of renewable energy technology in Rhode Island.

DEM's renewable vision:

We all need to act now to slow global warming and other changes to Rhode Island's climate. Scientists predict that the climate of Rhode Island will be more like that of Georgia by the year 2100 leading to unwelcome changes such as more heat-related death and illness, more powerful and frequent storms, more high ozone days, more water shortages, more warm weather species, etc.

DEM recognizes that as a state we can not solve the global warming problem by ourselves. DEM has been actively involved in regional organizations that seek to mitigate global warming pollution by reducing greenhouse gas emissions throughout the region. DEM is also supportive of the governor's

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TOWN OF BURRILLVILLE
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Harrisville, Rhode Island
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TOWN CLERK'S OFFICE

Nancy M. Faford
Town Clerk

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Fax: (401) 568-0490
TDD: (401) 568-9461

August 24, 2000

Honorable Town Council
Town of North Smithfield
Memorial Town Building
1 Main Street
Slatersville, Rhode Island 02876

Dear Council Members:

Enclosed please find a copy of a letter that the Town of Burrillville has sent to the Energy Siting Board. The letter states the concerns of the Town of Burrillville in regards to the proposed Indeck Power Plant. A copy of this letter has also been sent to the Legislative Delegations that represent the Towns of Burrillville and North Smithfield.

The Town Council unanimously voted to take this action at its Regular Meeting held on August 23, 2000 in the Council Chamber, Town Building, at which time a quorum was present and acting throughout.

Sincerely,

Nancy M. Faford

Nancy M. Faford, C.M.C.
Town Clerk

Enclosure

TOWN OF BURRILLVILLE
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Harrisville, Rhode Island
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TOWN CLERK'S OFFICE

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Town Clerk

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August 23, 2000

Mr. Douglas W. Hartley, Coordinator
State of Rhode Island and Providence Plantations
Energy Facility Siting Board
100 Orange Street
Providence, RI 02903

Dear Mr. Hartley:

On behalf of the Town of Burrillville and as voted by its Town Council on the 23rd of August, 2000, please find information we believe to be relevant to your consideration to approve (or not) the construction of a power plant (Indeck) in North Smithfield, Rhode Island (Indeck, LLC).

Please consider the following:

Power Supply:
There are three (3) relatively new independent power plants (Manchester St. Station, Pawtucket Power and Ocean State Power) in addition to the traditional plants in Southern New England that currently provide power and which meet the State's energy needs. There are at least five (5) new power plants under construction within a short distance of this region – Tiverton, Rhode Island, Blackstone, Bellingham and Charlton, Massachusetts and Killingly, Connecticut. There are proposed plants in Johnston, Rhode Island and another in Bellingham, MA. Power plants like the one proposed in North Smithfield usually sell the power they generate to brokers or distributors. This power is basically sold on an open market and, therefore, there is no direct and probably no indirect benefit to Rhode Island or this region. There is no reason to believe and certainly no guarantee that our state's power rates will be lowered because of a project like Indeck.

One point that has been raised by project proponents is that this plant will replace older, inefficient and environmentally less sensitive plants within our state or this region. Whereas that

may be a good political argument by the project proponents, it is far from reality and probably will never happen. Those plants probably have long-term existing contracts to supply power, can be (if needed) retrofitted to meet environmental concerns and are still very competitive in today's (and future) price markets. And, even if these plants were to stop operating, the five + plants currently under construction in this region will more than meet future needs. Independent power plants can be located virtually anywhere in New England and still service Rhode Island.

Environmental:
Regardless of whether or not assurances are given by Indeck's engineers and consultants that there will be no, or minimal, environmental impact on the targeted area, there are still no guarantees. Water is one of the world's most important natural resources. Locating this facility over a major regional aquifer that provides potable water to tens of thousands (maybe hundreds of thousands) of people and many businesses in our region is not a sound idea. Because this plant will not be connected to a sewer system, plant effluent and processing chemicals, etc. will be trucked over local roads and over this same aquifer. God forbid something does happen down the road. There could be tremendous and possibly irreparable impacts on our lives. It's not an appropriate site and the plant should not be built in the proposed location simply because major power lines and natural gas pipelines just happen to intersect in the vicinity.

As previously mentioned, there are a number of power plants similar in size and scope to this plant proposed (and under construction) in this region. It is our position that all these plants need to be considered in a regional evaluation of environmental impact, rather than looking at the impact of each plant individually.

Regional Planning:
If local and regional planning is an important tool to provide balanced growth and development and quality of life in our region, the Energy Facility Siting Board (EFSB) has to consider the comprehensive plans for this project site and area. Comprehensive plans are developed by each city and town, coordinated and ultimately approved and actually adopted by the State. There are no zoning or other provisions in North Smithfield's or Burrillville's comprehensive plans to accommodate this type of business in the area or vicinity in which the plant is proposed. To simply ignore the long range zoning and planning for the region in order to accommodate a private party's corporate interests is, in our opinion, just plain wrong.

We strongly encourage the Energy Facility Siting Board to carefully review relevant state law relating to comprehensive planning, specifically 45-22.2-10 and 42-11-10. We believe you will find that the criteria set forth in section 45-22.2-10 cannot be met by the project proponents (see enclosures).

One might argue that exceptions to regional planning can be made for beneficial projects like the location of a Fidelity Investments (Smithfield) to the region, but this power plant project does not have anywhere near the impact that a Fidelity has. This particular power plant offers virtually no meaningful long term employment opportunities in the region. The total employment projected for the power plant is approximately 20 to 30 employees (direct and indirect, per Indeck). Given the potential negatives associated with the Indeck plant, the virtually insignificant jobs impact within the region does not (in our opinion) offset those negatives.

We acknowledge that short term jobs will be created by the construction of the plant, but that short term benefit is, in our opinion, short sighted.

Road System / Zoning

Needless to say, Burrillville strenuously objects to the fact that access to the power plant for construction and during its operation is gained through Burrillville. We believe that every alternative to route or direct all the traffic through North Smithfield has to be properly evaluated and deemed unacceptable before considering Burrillville's access point(s). We simply will not accept Indeck's attempts to appease North Smithfield residents by funneling all the traffic impacts onto Burrillville.

The Town Council asks that you strongly consider the advisory opinion of our Zoning Board. We believe the Town is well represented and that the Zoning Board's opinion will properly represent the position of the Town Council.

Process:

We believe new deregulation laws change the original equation because there are no longer large, "monopolistic" utilities controlling the energy industry. An independent power plant can be located virtually anywhere in New England and still provide power to Rhode Island or this region through the distribution network.

Given that deregulation is now a functional reality, we believe that circumstances have changed and that the related state law(s) need to be modified. Those laws should be changed to give cities and towns more authority to manage our own affairs. As an example, it's possible that Indeck may be using the process by counting on a favorable decision by the EFSB which, in turn, diminishes the ability of the host and abutting/affected towns to negotiate and consider the risk/reward of these types of projects. As things currently stand, a company like Indeck probably will make many, many millions of dollars annually with virtually no meaningful incentive to work with Rhode Island communities. Effectively, they can use our lands, impact our environment and quality of life and we have no meaningful role in the process or the final outcome. This is unlike any other situation where a community plans for its growth and

development. Normally we are legally empowered to decide for ourselves what is in our own best interest working in tandem with regional and state planning through coordination of our comprehensive plans. Prospective business and industry looking to move to a community conform to local and regional planning and subsequent zoning, rules and regulations, etc. This, however, is not the case with power plants.

In summary, the Energy Facility Siting Board is being asked to sanction a private corporation's business within an area of the State not conducive to the type of business that will be operating from this particular location. Notwithstanding the environmental issues that are in play, this is a beautiful, rural, recreational area that should not be compromised if at all possible. If need for power is an issue, we believe the facts clearly show that the state's energy needs are currently being met and given the level of new power plant construction within a short distance of this site, combined with the benefits that deregulation afford, especially the potential supply of power – from virtually anywhere in New England and the northeast, we believe that this plant is not required to accommodate the short or long term energy needs of the State. If the Board is going to consider using its authority to abrogate the rights of every resident in this region of the State, we believe there should be a very good reason to do so. We contend there is not.

Very truly yours,

Wallace F. Lees, President
Burrillville Town Council

Invenergy Gas Plant Proposal

In its 471-page filing to Rhode Island's Energy Facility Siting Board (EFSB), Invenergy presents three major arguments in favor of its proposal to build a new 900 MW fossil-fuel plant in Burrillville. CLF is addressing each of these three principal arguments to show how and why Invenergy is mistaken in each case, and CLF will be presenting the testimony of one expert witness on each issue.

Carbon emissions and climate change. Invenergy claims that its plant will lower carbon emissions in New England by backing off dirtier coal- and oil-fired generators. For CLF, of course, this is the overriding issue:
http://www.clf.org/blog/clean-energy-climate-change/new-fossil-fuel-power-plant-proposed-for-rhode-island/
May 31, 2016, CLF filed in the EFSB the expert testimony of Dr. Timmons Roberts, CLF's expert on carbon emissions and climate change. Dr. Roberts's blog post, which contains a link to his full, pre-filed testimony is here:
http://www.clf.org/blog/timmons-roberts-new-fossil-fuel-power-plant-in-rhode-island/

Is the Invenergy Plant Needed? Invenergy claims (falsely) that this plant is needed to prevent dangerous blackouts due to a shortage of electricity-generation capacity in Rhode Island:
http://www.clf.org/blog/clean-energy-climate-change/the-invenergy-plant-is-not-needed-to-prevent-blackouts/
The results of the ISO's Forward Capacity Auction, held on February 8, 2016, show that the Invenergy plant is not needed:
http://www.clf.org/blog/iso-auction-shows-that-invenergys-proposed-plant-is-not-needed/

Ratepayer Impacts. Invenergy claims that Rhode Island ratepayers stand to save $280 million during the first 3 years the new plant is in operation:
http://www.clf.org/blog/clean-energy-climate-change/invenergy-plant-wont-deliver-the-promised-ratepayer-savings/

Conservation Law Foundation
55 Dorrance Street, Suite 202
Providence, Rhode Island 02903
www.clf.org

KEEP RHODE ISLAND *Beautiful*

NO NEW BURRILLVILLE POWER PLANT!

Did you know that Governor Gina Raimondo has proposed putting a **SECOND POWER PLANT** in Burrillville, Rhode Island? The proposed **1000 Megawatt Power Plant** would be **fueled by Fracked Gas & Diesel Oil** (Fossil Fuels) and would result in the **unnecessary industrialization** of our beautiful and ecologically diverse rural region and neighborhoods. It would also introduce **unnecessary risk to our health and safety** as well as **unnecessary risk to our water supply and quality.**

The facts below highlight how the proposed plant would **negatively impact Burrillville as well as the larger region and towns in RI, MA, and CT.** Due to current RI state law **the residents of Burrillville have NO VOTE.** The decision and approval for this plant now rests solely with the Rhode Island Energy Facility Siting Board. The EFSB, the Governor, and all elected state & town officials need to hear from us as citizens. Please **visit us online on Facebook and our website** for more details on the proposed plant, the process, and for contact info so you can take action and voice your concern before it's too late.

52 known pollutants

52 known pollutants will be spewed from **twin, 200 foot tall stacks** including **3 tons of formal Hazardous Pollutants** a year and **3.6 Million tons of CO2** a year, endangering the health of our families.

85 local areas

There are over **85 thriving environmental areas** within a **5 mile radius** including; 20 bodies of water, 26 Conservation Land Areas, 25 State Recreation Areas, 15 Historic Districts, 8 State Conservation areas, and many campgrounds and youth camps used by thousands.

100K people

Over 100,000 people live in communities surrounding Burrillville, RI and the proposed plant including: Glocester, RI; N. Smithfield, RI; Uxbridge, MA; Douglas, MA; Thompson, CT; and Putnam CT

200 acres

At least 200 combined acres of **beautiful interior forest clearcut:** significantly impacting local habitats, wetlands, and **displacing over 165 distinct wildlife species** including **2 threatened species.**

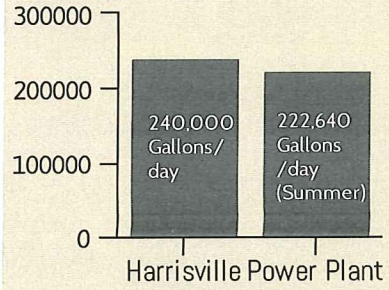
222K gallons

222,640 Gallons of Water a Day (924,489 @ peak) will be drawn through an **MTBE contaminated well** posing significant risk of the **release of potentially carcinogenic contaminants,** while also **draining water resources** available for local aquifers and rivers.

2M gallons

Two, 1 Million gallon tanks for storage of oil to be burned as needed in winter (= higher pollution & water usage levels) as well as a **40,000 gallon ammonia tank** and **hydrogen gas** stored in tube trailers.

The proposed plant is projected to use as much water per day as the entire Harrisville District!



"Water supplied to the project from PUD's well #3A should be considered to decrease the water flow available to the Clear River...it will be assumed that there will be a one for one reduction in the Clear River flow."

* from the Clear River Energy Center Application, 10/28/15 page 51.

3,626,113 Tons of Additional Carbon Dioxide Emitted Annually!

38%

Approximate increase in annual energy-related Rhode Island CO_2 emissions

* based on 2013 data from U.S. Energy Information Administration.

Equivalent to **750,000 cars** (almost 2x the number of cars in RI).

* based on per passenger car estimate from EPA and registered Rhode Island vehicles from U.S. Dot Office of Highway Information.

"It would be impossible to ever meet the carbon-emission-reduction goals of the Resilient Rhode Island Act."

Jerry Elmer, Senior Counsel with Conservation Law Foundation

Elmer, J. (2016 January, 11). R.I. plant a step in wrong direction, The Providence Journal.

The RISK to our children, our future, and our environment is just not worth the REWARD.

Get educated, share, contact officials, and take action.

Facebook/KeepRhodeIslandBeautiful

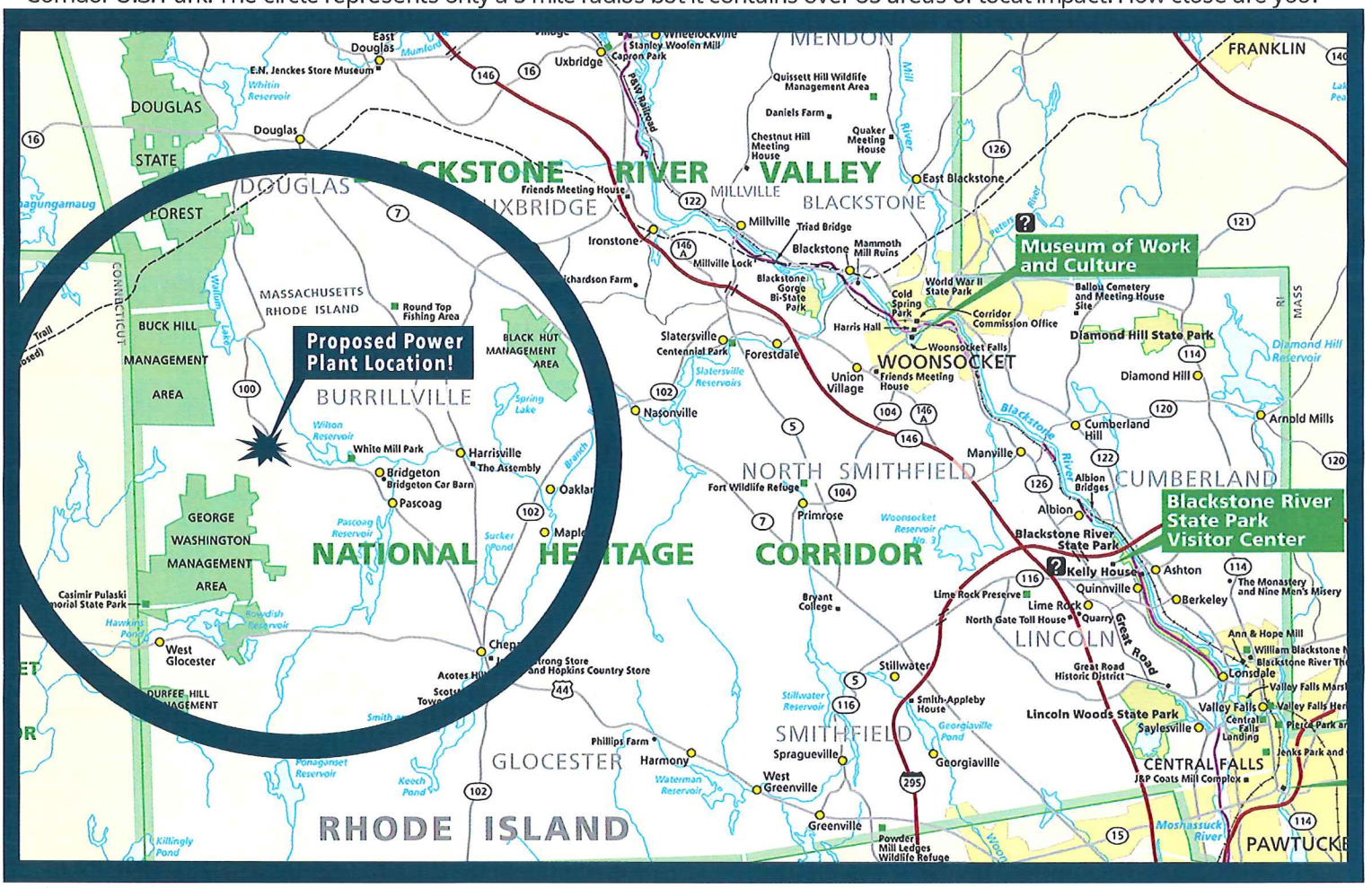
www.keeprhodeislandbeautiful.com

Paid for by citizens of Burrillville & Northern Rhode Island

KEEP RHODE ISLAND *Beautiful*

NO NEW BURRILLVILLE POWER PLANT!

The proposed **1000 Megawatt Power Plant** would be located in the middle of the Blackstone River Valley National Heritage Corridor U.S. Park. The circle represents only a 5 mile radius but it contains over 85 areas of local impact. How close are you?



The proposed plant is NOT a done deal. What can YOU do to stop it?

Write & Call

1. Contact the Governor of Rhode Island. Email: Gov.Outreach@governor.ri.gov Call: (401) 222-2080 Write: 82 Smith Street Providence, RI 02903.

2. Submit your written comments to the RI Energy Facilities Siting Board. Email the coordinator: todd.bianco@puc.ri.gov

3. Contact your local elected State & Town officials.

Attend

Your support and presence at the meetings is very important.

1. Attend the Burrillville Planning Board Meeting at the Burrillville High School. June 20th, 6 PM.

2. Attend Public Utilities Commission Public Comment Hearing at CCRI Auditorium, Warwick, RI June 30th 6:00 PM.

Volunteer

There are many ways you and your family can get involved and help.

1. Sharing information person to person is one of the most important things you can do.

2. You can also help with the petition drive, help staff awareness events, rallies, meetings, and much more.

Connect with us on social media and the web for full list of contacts & events.

The RISK to our children, our future, and our environment is just not worth the REWARD.

Get educated, share, contact officials, and take action.

Facebook/KeepRhodeIslandBeautiful

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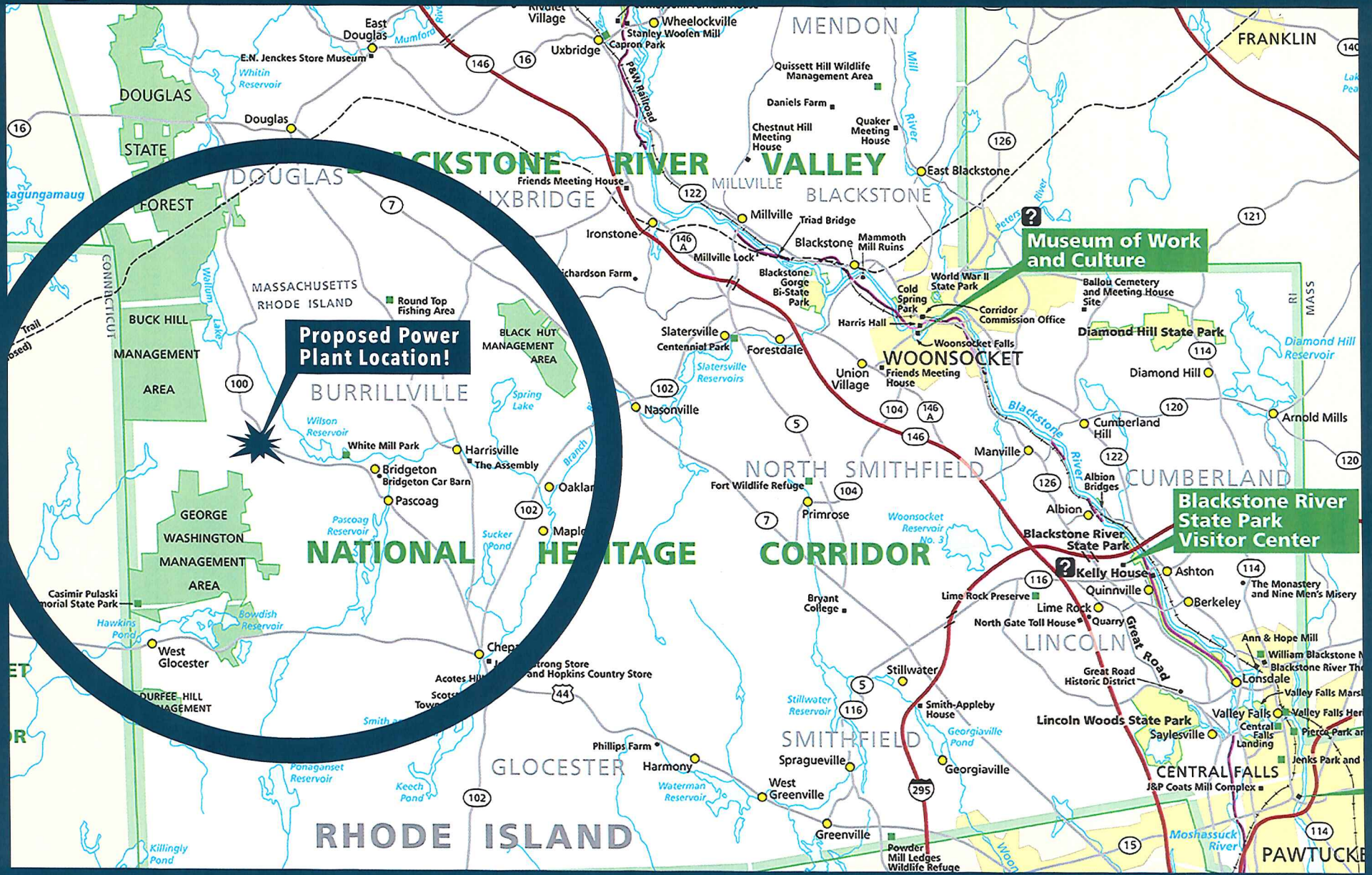
KEEP RHODE ISLAND Beautiful

NO NEW BURRILLVILE POWER PLANT!

The fracked gas & oil fueled power plant proposed by the Governor for Burrillville, RI is right in the middle of the Blackstone River Valley National Heritage Corridor U. S. National Park. With over 20 bodies of water, 26 Conservation Land Areas, 25 State Recreation Areas, 15 Historic Districts, 8 State Conservation Areas, many Campgrounds & Youth Camps in a 5 miles radius, this is no place for a new power plant!

Visit www.keeprhodeislandbeautiful.com to learn more.



Men like James Madison and Alexander Hamilton understood that prosperity depends upon the security and certainty of property rights and designed the Constitution accordingly.

<u>5 Federal Legal Homeowner Bundle of Property Rights afforded to the Real Estate Title Holder:</u>

1. Right of Possession.

2. Right of Control of the property.

3. Right of Quiet and Peaceful Enjoyment.

4. Right of Exclusion-to keep others from entering or occupying the property. <u>(In all forms.)</u>

5. Right of Disposition- to be able to sell or otherwise convey the property.

PUBLIC UTILITIES
COMMISSION
DOCKET NO. 4609
SPONSOR Public
EXHIBIT NO. 10
IDENT. (DATE) 6/30/16
FULL (DATE) —
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