

# ENF Environmental Notification Form

*For Office Use Only*  
 Executive Office of Environmental Affairs

EOEA No.: **13925**  
 MEPA Analyst: **Mick ZAVOLAS**  
 Phone: 617-626-**1030**

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: <b>Billerica Power</b>		
Street: <b>134 Rear Billerica Avenue</b>		
Municipality: <b>Billerica</b>	Watershed: <b>Concord (SuAsCo)</b>	
Universal Transverse Mercator Coordinates: Zone 19: <b>312335E, 4719226N</b>	Latitude: <b>42° 36' 09.47" N</b> Longitude: <b>71° 17' 15.57" W</b>	
Estimated commencement date: <b>Nov. 2007</b>	Estimated completion date: <b>Nov. 2008</b>	
Approximate cost: <b>230 Million Dollars</b>	Status of project design: <b>25 %complete</b>	
Proponent: <b>Montgomery Billerica Power Partners, LLP</b>		
Street: <b>12 Ridgewood Road</b>		
Municipality: <b>Burlington</b>	State: <b>CT</b>	Zip Code: <b>06013</b>
Name of Contact Person From Whom Copies of this ENF May Be Obtained: <b>Judy Shuckerow Bourdon</b>		
Firm/Agency: <b>Earth Tech</b>	Street: <b>300 Baker Avenue, Suite 290</b>	
Municipality: <b>Concord</b>	State: <b>MA</b>	Zip Code: <b>01742</b>
Phone: <b>978-371-4000</b>	Fax: <b>978-371-2468</b>	E-mail: <b>judy.shuckerow@earthtech.com</b>

- Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?  
 Yes  No
- Has this project been filed with MEPA before?  
 Yes (EOEA No. \_\_\_\_\_)  No
- Has any project on this site been filed with MEPA before?  
 Yes (EOEA No. \_\_\_\_\_)  No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:
- a Single EIR? (see 301 CMR 11.06(8))  Yes  No
  - a Special Review Procedure? (see 301 CMR 11.09)  Yes  No
  - a Waiver of mandatory EIR? (see 301 CMR 11.11)  Yes  No
  - a Phase I Waiver? (see 301 CMR 11.11)  Yes  No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres):

Are you requesting coordinated review with any other federal, state, regional, or local agency?  
 Yes (Specify \_\_\_\_\_)  No

**List Local or Federal Permits and Approvals:**

Local: Wetlands Permit/Notice of Intent (Conservation Commission), Site Plan Approval and Special Permit (Planning Board), Board of Appeals (variances)

Federal: Acid rain permit, FAA notification

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- |  |                                       |  |
|--|---------------------------------------|--|
| <input checked="" type="checkbox"/> Land   | <input type="checkbox"/> Rare Species | <input type="checkbox"/> Wetlands, Waterways, & Tidelands      |
| <input checked="" type="checkbox"/> Water  | <input type="checkbox"/> Wastewater   | <input type="checkbox"/> Transportation                        |
| <input checked="" type="checkbox"/> Energy | <input type="checkbox"/> Air          | <input type="checkbox"/> Solid & Hazardous Waste               |
| <input type="checkbox"/> ACEC              | <input type="checkbox"/> Regulations  | <input type="checkbox"/> Historical & Archaeological Resources |

Summary of Project Size & Environmental Impacts	Existing	Change	Total	State Permits & Approvals
<b>LAND</b>				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input type="checkbox"/> Chapter 91 License <input type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input checked="" type="checkbox"/> New Source Approval <input checked="" type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input checked="" type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i> NPDES MA Construction Stormwater General Permit, Non-Major Comprehensive Air Permit, Energy Facility Siting Board Approval, Aboveground Storage Tank Permit (State Fire Marshall)
Total site acreage	~13.868			
New acres of land altered		~9.24 onsite, 1.1 offsite		
Acres of impervious area		~7.12 <sup>(1)</sup> onsite, ~1.1 offsite	~7.12 <sup>(1)</sup> onsite; ~1.1 off-site	
Square feet of new bordering vegetated wetlands alteration		0		
Square feet of new other wetland alteration		0 <sup>(2)</sup>		
Acres of new non-water dependent use of tidelands or waterways		0		
<b>STRUCTURES</b>				
Gross square footage	0	~31,350 <sup>(3)</sup>	~31,350 <sup>(3)</sup>	
Number of housing units	N/A	N/A	N/A	
Maximum height (in feet)		70 <sup>(4)</sup>	70 <sup>(4)</sup>	
<b>TRANSPORTATION</b>				
Vehicle trips per day <sup>(5)</sup>	0	20 <sup>(5)</sup>	20 <sup>(5)</sup>	
Parking spaces	0	10	10	
<b>WATER/WASTEWATER</b>				
Gallons/day (GPD) of water use	0	964,000 <sup>(6)</sup>	964,000 <sup>(6)</sup>	
GPD water withdrawal	0	964,000 <sup>(6)</sup>	964,000 <sup>(6)</sup>	
GPD wastewater generation/ treatment	0	18,000 <sup>(7)</sup>	18,000 <sup>(7)</sup>	
Length of water/sewer mains (in miles)	0	0	0	

<sup>(1)</sup> Includes area of crushed stone. Total without crushed stone is 3.34 acres.

<sup>(2)</sup> Zero state-regulated wetlands. Billerica has wetlands regulations & bylaws.

<sup>(3)</sup> Gross square footage is building and tanks.

<sup>(4)</sup> Preliminary estimate for height of structures, stack height TBD.

<sup>(5)</sup> Values are for when plant is in operation for employees. Process materials deliveries are estimated to be 6 per month. Construction traffic will be larger, but will be temporary. During fuel oil usage an additional 25 trips/day are expected.

<sup>(6)</sup> Max for 24 hr – unlikely to occur. Typical <500,000 gpd.

<sup>(7)</sup> Additional ~10,000 gpd intermittent for filter backwash, machinery leaks, washdowns.

**CONSERVATION LAND:** Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

Yes (Specify \_\_\_\_\_ )  No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

Yes (Specify \_\_\_\_\_ )  No

**RARE SPECIES:** Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

Yes (Specify \_\_\_\_\_ )  No

**HISTORICAL /ARCHAEOLOGICAL RESOURCES:** Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

Yes (Specify \_\_\_\_\_ )  No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (Specify \_\_\_\_\_ )  No

**AREAS OF CRITICAL ENVIRONMENTAL CONCERN:** Is the project in or adjacent to an Area of Critical Environmental Concern?

Yes (Specify \_\_\_\_\_ )  No

**PROJECT DESCRIPTION:** The project description should include (a) a description of the project site, (b) a description of both on-site and off-site alternatives and the impacts associated with each alternative, and (c) potential on-site and off-site mitigation measures for each alternative (*You may attach one additional page, if necessary.*)

The proposed project consists of constructing and operating a new peaking power generating facility in Billerica, Massachusetts. The project site is 134 Rear Billerica Avenue in Billerica. The property is approximately 13.868 acre lot surrounded by industrial land uses. The property is located in an Industrial zoning district as designated under the Billerica Zoning Ordinance. Due to the existing zoning designation, the nature of both the historic and existing land use and surrounding land uses, the environmental impacts associated with the development of this property are anticipated to be minimal. The facilities to be constructed on the proposed site are described below.

Montgomery Billerica Power Partners, LLP is proposing to install eight combustion turbine generating sets firing natural gas as the primary fuel and ultra low-sulfur diesel fuel for back-up. The proposed units will have a combined nominal capacity of 480 megawatts (MW). The new generating units will be based on Pratt and Whitney FT8 (or equivalent) simple-cycle combustion turbines. They will be designed, built, and operated for the purpose of providing power during peak electric demand periods and to support the transmission grid during system imbalances and emergencies. An immediate regional need for more peaking power resources is anticipated by 2007 for Massachusetts, the Greater Boston metropolitan area and as projected by the Independent System Operator for New England (ISO-NE). Construction of the project is scheduled to begin in November 2007 with commercial operation beginning on a phased basis in June 2008 to November 2008. The preliminary project site plan is presented in Attachment A.

An existing subsurface natural gas supply line is located onsite, and an existing overhead 115KV electric corridor is located near the site. These existing facilities will be able to support the proposed project with minimal off-site impacts. Therefore, the site is well suited for the proposed project with respect to utility infrastructure. The required upgrades are discussed in the attached Energy Schedule.

The proposed site is currently undeveloped lot surrounded by industrial land uses. These existing uses are not in transition and are to remain. The project is an industrial land use and is therefore consistent with the current and long-term character of the area. Regarding zoning, as described above, the lot is located in an Industrial zoning district.

Montgomery Billerica Power Partners, LLP is committed to building a facility with minimal impacts on the environment and the community. Resources impacted by the project include air, water, wastewater, and land.

Regarding air impacts, the turbines will burn natural gas as their primary fuel, with ultra low-sulfur diesel oil as back-up. Natural gas is the cleanest burning fuel available for combustion turbine generators. Ultra low-sulfur diesel oil has the lowest sulfur content and particulate emissions of any commercially available petroleum fuel oil. Furthermore, Montgomery Billerica Power Partners, LLP is proposing to use combustion and post-combustion controls to limit air quality impacts. The use of these emission control technologies will reduce emissions to levels below those determined by EPA to constitute a "major source" of air pollution along with any necessary operational limits consistent with the facility's role as a source of peaking power.

Regarding noise, impacts on sensitive receptors are anticipated to be minimal. Noise abatement measures will be employed to mitigate

noise impacts to the maximum extent necessary to ensure compliance with local and state regulatory guidelines, notwithstanding the industrial nature of the surrounding area. The turbines will include a vendor-supplied noise reduction package. A noise survey and project site area is being conducted, and additional noise mitigation measures will be implemented based on the results of that survey and subsequent noise prediction modeling.

Regarding rare species, Earth Tech consulted the October 2006 MassWildlife/Natural Heritage and Endangered Species Program (NHESP), and no potential species were on the site. A GIS data layer map has been provided in Attachment A.

Regarding historical impacts, a letter has been sent to the Massachusetts Historical Commission requesting confirmation that the project site does not include any structure, site, or district listed in the State Register of Historical Place or the Inventory of Historic and Archaeological Assets of the Commonwealth. A site locus layout with the historic areas in Billerica is provided in Attachment A.

Regarding transportation impacts, traffic will increase during construction, but this will only be temporary increase. The number of construction employees will average about 185 people with a peak estimate of personnel on site of 250 people. Temporary traffic control measures will be employed. Once the plant is in operation traffic will be employees, and process materials deliveries. The facility will be capable of operating unattended; on-site staff will consist of up to 10 people during equipment maintenance. There will be approximately 6 bulk chemical or miscellaneous deliveries per month to the site. Traffic impacts will be minor. During full load fuel oil operation there will be up to an additional 25 trucks per day for fuel deliveries. Fuel oil use will be limited to periods when natural gas is unavailable, and total fuel oil operating hours will be restricted by the air permit. All heavy deliveries will access the site through the existing Baker Commodities entrance. Approximately 0.36 miles of existing unpaved track road on Baker Commodities property will be paved for project access. Passenger vehicles will access the site using the Baker Commodities entrance or Town Farm Lane.

The project exceeds ENF thresholds under the Land category for creation of five or more acres of impervious surface (5.0 acres). This estimate conservatively includes areas of crushed stone, which will allow some percolation. Changes to stormwater runoff will be managed using best management practices, and will be documented through the wetlands permit application discussed below. There are no proposed impacts to bordering vegetated wetlands or other state-regulated wetland resources. Work in buffer zone will be identified in the Notice of Intent (NOI) and/or the wetlands permit application to be filed with the Billerica Conservation Commission. Compliance with Billerica's wetland protection regulations and bylaws will also be coordinated with the Billerica Conservation Commission. The project is greater than 200 feet from the Concord River, and no structures are proposed in the flood plain.

Regarding water, the project is installing test wells to determine the feasibility of using onsite well water. As a backup alternative, the project will review the potential use of treated effluent from the Billerica municipal waste water treatment facility. The new peaking units could require a maximum of 964,000 gallons per day (gpd) assuming operation for a full 24-hour period. However, the turbines are anticipated to be operated only during hours of peak electrical demand, and expected daily water demands are less than half this amount.

Regarding wastewater, the system is being designed to minimize wastewater generation. Normal wastewater generation will be below 20,000 gpd, with occasional flows of up to 30,000 gpd during maintenance (filter backwash, machinery leaks, washdowns). This wastewater will be trucked offsite. As an alternative, the project will explore the possibility of sending the wastewater to the Billerica municipal waste water treatment facility. The Billerica municipal waste water treatment facility has a maximum design capacity of 5.5 million gallons per day (MGD). The plant treats approximately 4.4 MGD on average and approximately 4.7 MGD during peak periods in the summer. Therefore, even during peak demand periods the plant has a spare treatment capacity of 0.8 MGD. In the event that wastewater is directed to the plant, a Sewer Connection/Extension Permit will be required. The sewer would be extended for approximately 630 feet.

**Alternatives:** The alternatives to the proposed project include the no action alternative, alternative site locations, and alternative generating technologies.

**No Action Alternatives:** The no action alternative was considered and rejected because Massachusetts and ISO-NE face a current shortage of power resources, particularly appropriately scaled peaking resources. The no action alternative would mean additional operation of existing power plants instead of displacing them with cleaner and more appropriately scaled peaking units pursuant to the Massachusetts restructured electric markets. Finally the proposed site is an oddly-shaped parcel constrained by rail lines. While it is suited for a peaking unit, no other "best" use for the site has emerged.

**Alternative Site Locations:** There are alternative project sites in this region that are of the appropriate size, that have no other apparent use, and that lie near both the existing natural gas pipeline and the existing transmission corridor. Other sites were considered. These sites are developed properties in an industrial zoning district and would have similar environmental impacts to those associated with the proposed site. However, these alternative sites are either unavailable due to pending development plans, or would involve the additional cost of relocating existing business, and are therefore inferior to the proposed site. Also the site is preferred based on the level dry ground.

**Alternative Technologies:** Onsite alternatives such as wind power or other renewable technologies are not feasible for the proposed site. Simple cycle natural gas and ultra low sulfur diesel fuel fired combustion turbines are the cleanest and the most compact approach to provide significant amounts of peaking capacity, necessary to provide system stability and respond to peak needs, with the essential characteristics of reliability, responsiveness (dispatchability) and low O&M costs when the facility is not operating, but still available to provide these essential services.