COMMONWEALTH OF MASSACHUSETTS
Energy Facilities Siting Board

In the Matter of the Petition of IDC Bellingham LLC, for Approval to Construct and Operate a 525-MW Bulk Generation Facility in the Town of Bellingham, Massachusetts	)	EFSB 97-5A

FINAL DECISION ON COMPLIANCE

Jolette A. Westbrook
Hearing Officer
September 12, 2000

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LIST OF ABBREVIATIONS

Abbreviation	Explanation
AALs	Allowable Ambient Limits
ACC	Air Cooled Condenser
ANP Blackstone Decision	ANP Blackstone Energy Company, EFSB 97-2/98-2 (1999)
Approved configuration	Proposed project using the SW 501G turbines and other components approved in the Final Decision
Bellingham	Town of Bellingham
Bellingham parcel	156 acre parcel in Bellingham where the proposed facility would be located
Berkshire Compliance Decision	Berkshire Power Development, Inc., 7 DOMSB 423 (1997)
BACT	Best available control technology
BECo	Boston Edison Company
BPA	The Box Pond Association
Cavanaugh	Cavanaugh Tocci Associates, Inc.
cfs	Cubic feet per second
CO	Carbon monoxide
CO_2	Carbon dioxide
Company	IDC Bellingham, LLC
Compliance configuration	Proposed project using the GE 7FA gas turbines as discussed in the Compliance Filing
Compliance Filing	March 3, 2000 filing submitted by IDC regarding a change in the Company's choice of turbine for the prosed facility
CTGs	Combustion Turbine Generators
dBA	Decibel
DEIR	Draft Environmental Impact Report
Dighton Power Decision	Dighton Power Associates, EFSB 96-3 (1997)

EMF	Electric and magnetic fields
EPC	Engineering, procurement, and construction
Epsilon	Epsilon Associates. Inc.
FEIR	Final Environmental Impact Report
Final Decision	IDC Bellingham LLC, 9 DOMSB 225 (1999)
GE	General Electric
gpd	Gallons per day
gpy	Gallons per year
HRSG	Heat recovery steam generator
IDC	IDC Bellingham, LLC
Joint Intervenors	The Box Pond Association, Inc., The Concerned Citizens of Bellingham, Inc., and Joan Eckert
L_{90}	The level of noise that is exceeded 90 percent of the time
LAER	Lowest Achievable Emission Rate
lbs/MMBtu	Pounds per million British thermal units
lbs/MW-hr	Pounds per megawatt hour
MDEP	Massachusetts Department of Environmental Protection
Mendon Parcel	65 acre parcel in Mendon abutting the Bellingham parcel
mG	Milligauss
mgd	Million gallons per day
MW	Megawatt
NAAQS	National ambient air quality standards
NEA	Northeast Energy Associates
NEA plant	NEA's existing 300 MW facility in Bellingham
NEPCo	New England Power Company
NHESP	Natural Heritage and Endangered Species Program
1985 MECo/NEPCo Decision	Massachusetts Electric Company et al., 13 DOMSC 119 (1985)

NOx	Nitrogen oxides
O_3	Ground-level ozone
Pb	Lead
PM	Particulates
PM-10	Particulates under 10 microns in size or under
ppm	Parts per million
ROW	Right-of-way
SCR	Selective Catalytic Reduction
SW	Siemens Westinghouse
SILs	Significant Impact Levels
Siting Board	Energy Facilities Siting Board
SO_2	Sulfur dioxide
SOx	Sulfur oxides
STG	Steam Turbine Generator
TEL	Threshold effects exposure limit
Town	Town of Bellingham
TPS	Technology Performance Standards
tpy	Tons per year
USEPA	United states Environmental Protection Agency
VOCs	Volatile organic compounds

The Energy Facilities Siting Board hereby APPROVES subject to conditions the petition of IDC Bellingham LLC to construct a 525-megawatt bulk generating facility at the proposed site in Bellingham, Massachusetts.

I. INTRODUCTION

A. Background

On December 21, 1999, the Energy Facilities Siting Board ("Siting Board") conditionally approved the petition of IDC Bellingham LLC ("IDC" or "Company") to construct a natural gas-fired combined-cycle, electric generating facility with a net nominal electrical output of 700 megawatts ("MW") in Bellingham, Massachusetts ("Bellingham" or "Town").[1] IDC Bellingham, LLC, 9 DOMSB 225, 236 (1999) ("Final Decision"). After the close of evidentiary hearings, but prior to the Siting Board issuing the Final Decision, IDC informed the Siting Board of the possibility that the Company would have to change turbine manufacturers. Id. at 242. The Siting Board concluded that the possibility of a change in turbine manufacturers was not an impediment to the Siting Board issuing a decision, particularly since IDC had indicated that it would change turbines, if necessary, in order to meet the environmental commitments it had made in the underlying proceeding. Id. at 243. Consequently, the Siting Board directed IDC to make a compliance filing regarding the Company's choice of turbine. Id. The Siting Board stated that if the Company's choice of turbine changed, the Siting Board would determine based on the compliance filing whether additional discovery and hearings would be necessary. Id. The Siting Board stated that if additional proceedings were necessary, they would be an extension of the underlying proceeding. Id.

On March 3, 2000, IDC submitted its compliance filing ("Compliance Filing") to the Siting Board. IDC stated that instead of the two Siemens Westinghouse ("SW") 501 G gas turbines it had anticipated using, IDC now intends to use two General Electric ("GE") 7FA gas turbines which,

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[1] The original petition was filed in this case on November 18, 1997 by Infrastructure Development Corporation. On March 10, 1998, Counsel for the petitioner informed the Siting Board that the name of the petitioner had been changed to IDC Bellingham LLC.

according to the Company, would meet the environmental performance commitments IDC made in the underlying proceeding (Exh. CF-IDC-1). IDC stated that the primary reason for the turbine change is that the SW 501 G turbines cannot be purchased with manufacturer guarantees that they would meet the proposed facility's emissions limits, particularly with respect to nitrogen oxide and ammonia slip (id.; Tr. 4, at 384). The Company also stated that in addition to changing to the GE 7FA turbines, it would reconfigure the proposed facility so that the net nominal capacity would be reduced from 700 MW to 525 MW (Exh. CF-IDC-1).

B. Description of Project with GE Turbines

The proposed project using the GE 7FA gas turbines ("compliance configuration") would be located on an approximately 14.5-acre footprint of a 156-acre industrially zoned site ("Bellingham parcel") off Depot Street in Bellingham, Massachusetts.[2,3] The generating facility in the compliance configuration would include the following major components and structures: two GE 7FA gas turbine generators, two heat recovery steam generators ("HRSGs"), one steam turbine generator ("STG"),[4] one air-cooled condenser ("ACC") and a 190-foot dual-flue stack (Exh. CF-IDC-2, at 2-1 to 2-2).[5] All other equipment, including the enhanced selective catalytic reduction ("SCR") unit and oxidation

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[2] The project using the SW 501 gas turbines ("approved configuration") would have required 17 acres of the same 156-acre site (Exh. CF-IDC-2, at 2-2).

[3] As part of the compliance configuration, the Company will maintain an approximately 65-acre parcel of land in the Town of Mendon abutting the Bellingham parcel to serve as permanent buffer between the facility and neighboring businesses and residences to the north and west of the facility ("Mendon parcel") (Exh. CF-IDC-2, at 2-1). The Company stated that it has acquired a purchase option for this land (id.).

[4] The shared steam turbine allows for a side-by-side configuration of the two gas turbine/HRSG units as opposed to the end-to-end layout used in the approved configuration (Exh. CF-IDC-2, at 2-1 to 2-2).

[5] The generating facility in the approved configuration included: two SW 501G turbine generators, two HRSGs, two STGs, two ACCs and a 190-foot dual flue stack. Final Decision at 236-237.

catalyst used for emissions control, would remain substantially the same (id. at 2-2). Additional project components, including the water treatment building, the water storage tanks, and the administrative/control room/maintenance building, also would remain essentially the same under either configuration (id. at 2-1 to 2-2; Tr. 3, at 285).[6] In addition, the ammonia storage tank would continue to be surrounded by a dike enclosed by a secondary containment building (Exh. CF-IDC-2, at 2-2; Tr. 3, at 286).

IDC stated that the access point to the proposed site would remain the same with the compliance configuration, but that the access road would be altered slightly to conform to the new site layout (Exh. CF-IDC-2, at 2-1). The Company also stated that the planned interconnection with the 345 kV transmission line on the western side of the site would be unchanged in the compliance configuration, although the swithchyard would be slightly larger (id.; Tr. 3, at 287). Further, the planned interconnection with the Algonquin Gas Transmission Company natural gas transmission pipeline would be unchanged; the proposed facility in the compliance configuration, as in the approved configuration, would burn only natural gas (Exh. CF-IDC-2, at 2-1).

C. Procedural History

On March 3, 2000, IDC submitted its Compliance Filing in accordance with a directive issued by the Siting Board in the Final Decision. Final Decision at 243-244. On March 31, 2000, the Hearing Officer issued a ruling defining the scope of the compliance proceeding and established a procedural schedule (Hearing Officer Ruling, March 31, 2000, IDC Bellingham, LLC, EFSB 97-5). Parties to the underlying case, EFSB 97-5, were made parties to this proceeding.

The Siting Board conducted four days of evidentiary hearings, commencing on June 20, 2000 and ending on June 28, 2000. The Company presented the testimony of the following witnesses: Theodore A. Barten, P.E., Managing Principal of Epsilon Associates, Inc. ("Epsilon"), who testified as to safety, water, and general issues; Donald C. DiCristofaro, Vice President of Environmental Affairs

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[6] The facility in the compliance configuration would have one as opposed to two water-glycol coolers (Exh. RR-CF-EFSB-3; Tr. 3, at 286).

for Infrastructure Development Corporation, LLC, who testified as to air and general issues; David N. Keast, P.E., Consultant in Acoustics, who testified as to noise issues; Samuel G. Mygatt, Principal of Epsilon who testified as to visual and traffic impacts; Stephen R. Pritchard, Vice President of Project Development for Infrastructure Development Corporation, LLC, who testified as to water, project management, engineering, construction, safety, and general issues; and Dale T. Raczynski, P.E. Principal of Epsilon, who testified as to air quality issues. The Box Pond Association, Inc., the Concerned Citizens of Bellingham, and Joan Eckert (collectively "Joint Intervenors") presented the testimony of the following witnesses: Gregory C. Tocci, Cavanaugh Tocci Associates, Inc. ("Cavanaugh"), who testified as to noise issues; and Brion G. Koning, Senior Consultant with Cavanaugh, who testified as to noise issues.

Initial Briefs were submitted by IDC and the Joint Intervenors. Reply briefs were filed by IDC, the Joint Intervenors and East Acres Recreational Vehicles. The record consists of 129 exhibits consisting primarily of information request responses and record request responses.

D. Standard and Scope of Review

1. Standard of Review

In a March 31, 2000 Procedural Order, the Hearing Officer ruled that the standard of review to be used in this proceeding would be the one articulated by the Siting Board in the Berkshire Power Decision on Compliance ("Berkshire Compliance Decision"), 7 DOMSB 423, at 437 (1997). In the Berkshire Compliance Decision, the Siting Board declined to make further inquiry regarding certain project changes if the change did not alter in any substantive way either the assumptions or conclusions reached in its analysis of the project's environmental impacts in the underlying proceeding. Id. at 437. We find no reason to depart from that basic standard in this compliance proceeding. We note that the standard set forth in the Berkshire Compliance Decision is consistent with language in the Final Decision where the Siting Board stated that any additional proceedings held because of a change in IDC's choice of turbine, "would be limited to the issues raised by the changes to IDC's proposal." Final Decision at 244. Further, to expand the scope of review to matters other than the changes to the

proposed facility presented in the Compliance Filing would raise administrative efficiency concerns, and could result in the relitigation of issues decided in the underlying case.

Here, IDC has proposed changes to the configuration of the proposed facility which would result in changes in the levels of a number of the environmental impacts reviewed by the Siting Board in the underlying decision. In order to assess whether the changes alter the assumptions or conclusions reached in the Siting Board's analysis of environmental impacts, the Siting Board must compare the environmental impacts of the facility as approved by the Siting Board with the environmental impacts of the proposed facility in the compliance configuration. The Siting Board then must determine whether the changes alter the balance of environmental considerations reached in the underlying decision. Consequently, for each class of environmental impacts reviewed in the underlying decision, the Siting Board reviews the information provided by the Company and the Joint Intervenors in this proceeding to determine whether the impacts of the proposed facility in the compliance configuration would be greater than, less than, or substantially similar to the impacts reviewed in the underlying decision.

2. Scope of Review

a. Position of the Joint Intervenors

In their Brief and Reply Brief, the Joint Intervenors request that the Siting Board also address in this proceeding certain issues regarding the appropriate methodology for measuring ambient noise. Specifically, the Joint Intervenors argue that it is within the scope of review for this case for the Siting Board to determine whether the proposed project in the compliance configuration is able to meet Condition D of the Final Decision, which requires that noise increases at a specific monitoring point, Receptor R-4, be limited to five decibels ("dBA") above ambient levels (Joint Intervenors' Reply Brief at 1). The Joint Intervenors state that as a threshold matter, the Siting Board must determine how IDC should ascertain this ambient sound level (Joint Intervenors' Brief at 2). The Joint Intervenors submit that it is appropriate to determine in this proceeding how ambient levels should be measured, and allege that the Siting Board did not specify a particular ambient for the basis of the five dBA increase limit in the Final Decision, but rather "understood that the ambient would be developed in the future, based on

more rigorous data collection" (id. at 11). The Joint Intervenors argue that if the Siting Board had intended to limit noise increases to no more than five dBA above the ambient presented for receptor R-4 in the underlying proceeding, the Siting Board could have established absolute noise limits for the proposed facility at that receptor (Joint Intervenors' Reply Brief at 2). The Joint Intervenors assert that in determining ambient levels, the Siting Board should give deference to the technical expertise of its sister agency, the Massachusetts Department of Environmental Protection ("MDEP") and calculate ambient in the same manner as the MDEP (id. at 3). The Joint Intervenors argue that the five dBA increase limit was an essential basis for the Siting Board's finding that the project would minimize environmental impacts (id. at 9-10). Therefore, the Joint Intervenors submit that the Siting Board must either deny approval of the proposed project in the compliance configuration (which they assert does not comply with Condition D) or order the Company to impose additional noise mitigation measures to meet the five dBA limit at receptor R-4 using the methodology preferred by the Joint Intervenors (id. at 1-2, 9-11).

b. IDC's Response

IDC argues that the noise testimony presented by the Joint Intervenors in this proceeding is outside the proper scope of review for this proceeding insofar as the Joint Intervenors seek to introduce testimony regarding new ambient noise measurements (IDC Brief at 23). IDC asserts that it has designed noise mitigation measures to limit noise increases to five dBA over the "already-established ambient L_{90}, as directed by the Siting Board" in the Final Decision (id. at 25). IDC argues that to now apply this five dBA standard to a different ambient is tantamount to re-opening the record and relitigating the issue of noise (id.). Further, IDC disputes the Joint Intervenors' assertion that the Siting Board "understood" that the ambient referenced in Condition D would be developed in the future, arguing that this assertion "ignores the relationship between the five dBA increase and the ambient noise levels established in the underlying case" (IDC Reply Brief at 17). IDC states that the March 31, 2000 Hearing Officer Ruling in this case, which defined the scope of review for the Compliance Filing, is consistent with the Final Decision, which "can only be construed to permit further proceedings related

exclusively to changes resulting from a change in turbines" (IDC Brief at 24).

3. Analysis

As an initial matter, the Siting Board notes that this proceeding was undertaken in compliance with Condition A of the Final Decision,[7] which directs IDC to "make a compliance filing with the Siting Board regarding the Company's choice of turbines." Final Decision at 359. Condition A clearly states that "... any such additional proceedings [in response to the compliance filing] would be limited to the issues raised by changes to IDC's proposal." Id. Issues which could have been, but were not, raised in the underlying proceeding are not appropriate topics for review in this proceeding; neither is this proceeding an appropriate forum for relitigating issues decided in the underlying proceeding.

The Siting Board has reviewed the methodological arguments raised by the Joint Intervenors, and concludes that they are not "issues raised by changes to IDC's proposal", and therefore are not properly before the Siting Board at this time. Instead, the arguments of the Joint Intervenors consist of (1) arguments regarding the proper interpretation of Condition D[8] of the Final Decision (specifically

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[7] This proceeding is not a generalized compliance proceeding, in which IDC must demonstrate compliance with all conditions in the Final Decision (see Joint Intervenors' Reply Brief at 2). Such an inquiry would be premature, as most of the conditions set forth in the Final Decision are not preconstruction conditions, but rather are to be undertaken either during the construction of the proposed facility, or after it enters into commercial operation.

[8] While the Joint Intervenors focus primarily on Condition D of the Final Decision, their brief also discusses a Siting Board requirement for "more rigorous data collection" to be conducted in the future, in an apparent reference to Condition E. We note that Condition E of the Final Decision requires IDC to develop a post-construction noise monitoring protocol, baseline noise measurements, and noise monitoring schedule in consultation with the Bellingham Board of Selectmen and MDEP, and after comment by intervenors in this case. Final Decision at 360-361. To the extent that the Joint Intervenors are seeking to develop the protocol and baseline noise measurements referenced in Condition E as part of this proceeding, we note that such efforts are misplaced. Condition E clearly requires that the protocol be developed through consultation among the Board of Selectmen, MDEP and IDC, and only then provided to the Siting Board. There is no indication in the record that such consultation has taken place, and we do not intend in this decision to preempt such consultation in a proceeding closed to both

(continued...)

with regard to the ambient noise level assumed when IDC was required to limit noise increases at Receptor R-4 to 5 dBA above ambient), and (2) arguments regarding noise measurement methodology. These are both general concerns which could be raised regardless of plant configuration, and which are unrelated to the proposed change in plant configuration which is the subject of this proceeding.

The Joint Intervenors contend that the Siting Board must, in this proceeding, determine whether the proposed facility in the compliance configuration would comply with Condition D of the underlying decision. The Siting Board agrees, and addresses this issue in Section II. F, below. However, the Joint Intervenors' methodological arguments constitute an attempt to reopen an issue already decided in the underlying proceeding, namely the level of noise mitigation to be incorporated into the design of the proposed facility. In Condition D of the Final Decision, the Siting Board directed IDC "to implement additional noise mitigation that would limit L_{90} noise increases at receptor R-4 to 5 dBA." Final Decision at 315. A reading of the analysis leading up to Condition D makes it clear that this increase was to be above the ambient presented by IDC in the underlying proceeding. In the Final Decision, the Siting Board first reviewed evidence presented by intervenors which challenged the ambient levels presented by IDC,[9] and concluded that the evidence "[did] not cast doubt upon the accuracy of IDC's measurements." Id. at 312. The Siting Board recognized that future ambient noise levels in the Box Pond area could be slightly lower than those monitored by IDC, and determined that it was important to take "all cost-effective measures to limit noise increases" in the Box Pond area. Id. at 314-315. Based on its acceptance of IDC's measurement of existing ambient noise, the Siting Board then found the alternative of limiting increases at R-4 to 5 dBA at a cost of approximately $1.4 million to be cost-effective "in light of the uncertainty regarding future ambient noise levels and our concern about the

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8 (...continued)
the Board of Selectmen and MDEP.

9 The Siting Board notes that issues of noise measurement methodology were raised in the underlying proceeding, and that much of the evidence presented here by the Joint Intervenors with respect to noise measurement methodology could, and should properly, have been presented in the underlying proceeding.

residences along Box Pond Road. . . ." Id. at 315. The Siting Board did not require the adoption of more extensive noise mitigation packages costing approximately $2.66 million and $8.08 million. Id. at 305.

Thus, a careful reading of the Final Decision makes it clear that: (1) the Siting Board used the ambient noise measurements presented by IDC in determining whether to require noise mitigation measures beyond those initially proposed by the Company; and (2) in Condition D, the Siting Board required IDC to incorporate in its facility design additional noise mitigation which was specifically designed to limit noise increases to 5 dBA above the ambient presented in the underlying proceeding.[10] In doing so, the Siting Board implicitly accepted the ambient noise measurements presented by IDC for the purpose of setting Condition D. The Final Decision also shows that the Siting Board addressed the uncertainty regarding future ambient noise levels, not by calling for additional evidentiary hearings on the subject,[11] but by holding the increases over existing ambient levels to a relatively conservative 5 dBA. Further, the Final Decision makes it clear that, consistent with its statutory mandate to minimize both the environmental impacts of the proposed facility and the cost of environmental mitigation, the Siting Board imposed Condition D after determining, based on the record, that this specific level of noise mitigation was cost-effective. The Siting Board would not have made such a finding if it had anticipated developing a further evidentiary record on noise mitigation. Thus, this matter has been adjudicated in

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[10] At the December 17, 1999 Siting Board meeting, staff stated, in response to a question from the Siting Board, that Condition D "is directed at the proposal the company has made to limit noise based on monitoring that was done before. So it's done in the context of a 5 decibel increase above the baseline levels set forth in [IDC's] applications." (December 17, 1999 Siting Board Transcript at 27.) Staff also stated that "The record indicates that the baseline would be set – the number that is set as baseline is 35 decibels." (Id. at 28.)

[11] Condition D does not call for further hearings on ambient noise levels. In cases where the record is inadequate to determine whether costs and environmental impacts have been appropriately balanced, it is the Siting Board's practice to explicitly require the filing of additional information and to specify the need for additional review before a final approval is issued. See, e.g., Eastern Energy Company, 22 DOMSC at 188, 361-362 (1991) (Siting Council required the submission of additional data on the minimizing of SO_2 emissions and offsetting of CO_2 emissions, and specified the need for further review in a compliance filing).

the underlying proceeding; the Joint Intervenors have stated no basis for its reopening in this proceeding.

In summary, we find that the question of whether the proposed facility in the compliance configuration complies with Condition D of the Final Decision is within the scope of this proceeding. Consequently, in Section II. F, below, we examine whether the proposed facility in the compliance configuration would limit noise increases at Receptor R-4 to 5 dBA above the ambient presented in the underlying proceeding. However, the methodological evidence and argument presented by the Joint Intervenors should properly have been raised in the underlying proceeding, and represents an attempt to relitigate issues decided in the underlying proceeding. This evidence and argument therefore is outside the scope of this compliance proceeding, and will not be addressed further in this decision.

II. ENVIRONMENTAL IMPACTS

A. Air Impacts

Under the approved configuration, the Company had proposed to achieve Best Available Control Technology ("BACT") for carbon monoxide ("CO"), particulate matter ("PM-10"), sulfur dioxide ("SO_2"), lead ("Pb"), and volatile organic compounds ("VOCs") (Exh. CF-EFSB-EA-8-R3, at 4-11). Since the Massachusetts region is out of compliance with air quality standards for ozone, the Company was required to meet Lowest Achievable Emission Rate ("LAER") for nitrogen oxide ("NO_X"), a precursor of ozone, and to secure offsets for NO_X at a ratio of 1.26 to 1 (id. at 3-1 to 3-2).[12]

In the underlying case, the Siting Board reviewed the proposed facility's expected emissions of criteria and non-criteria pollutants and found that the proposed facility would meet the Siting Board's Technology Performance Standards ("TPS") for both criteria and non-criteria pollutants, and that consequently no alternative technologies assessment was required for the proposed facility. Final Decision at 268. The Siting Board also found that the maximum modeled concentrations of all criteria

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[12] IDC indicated that its anticipated VOCs emissions were not high enough to trigger LAER or offset requirements (Exh. CF-EFSB-EA-8-R3, at 3-1 to 3-2).

and non-criteria pollutants were below regulatory thresholds.[13] Id. at 269. In addition, the Siting Board reviewed an analysis of the cumulative air quality impacts of the proposed facility and other existing or proposed facilities and determined that the maximum combined concentrations of criteria pollutants were between 21 and 63 percent of the National Ambient Air Quality Standards ("NAAQS"), and that IDC's contribution at the point of maximum cumulative impact was less than one percent of the cumulative pollutant concentrations. Id. Further, the Siting Board found that the incorporation of a 190-foot stack height would minimize air quality impacts consistent with minimizing visual impacts. Id. Finally, the Siting Board found that, with implementation of NO_X and carbon dioxide ("CO_2") offset measures, the environmental impacts of the proposed facility at the proposed site would be minimized with respect to air quality. Id. at 275.

In its Compliance Filing, IDC compared the expected emissions of the proposed facility in the approved configuration and the compliance configuration, and asserted that annual emissions of all criteria pollutants would be reduced using the compliance configuration (Exh. CF-IDC-2, at 3-1). Table 1, below, shows the expected emissions for criteria pollutants for each configuration. The Company explained that annual PM-10 emissions would not be significantly reduced using the compliance configuration because the vendor guarantees in lbs per MMBtu for PM-10 emission rates are higher for the GE turbines than for the SW turbines (Exh. CF-EFSB-A-3). IDC noted that the GE turbines have been in operation since the early 1990's, and that consequently the vendors were able to provide emissions data based upon actual use over a number of years (Exh. CF-BPA-1; Tr. 4, at 371-371).

IDC asserted that, even though the GE turbine is slightly less efficient, emissions of both criteria and non criteria pollutants from the proposed facility in the compliance configuration would be well

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[13] The Siting Board compared the maximum concentrations of the proposed facility's emissions to significant impact levels ("SILs") for criteria pollutants set by the United States Environmental Protection Agency ("USEPA"), and toxic effect exposure limits ("TELs") and allowable ambient levels ("AALs") for non-criteria pollutants set by the MDEP. Final Decision at 269.

within the limits set by the Siting Board in its TPS (Exh. CF-EFSB-A-1; Tr. 4, at 340-341).[14] The Company stated that the proposed facility would meet BACT for all criteria pollutants and LAER for NO_X using either configuration (Exh. CF-BPA-A-5 (att.) at 4-1, 4-13).[15]

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[14] The Company testified that the GE turbine's lower efficiency affected the emission rates of all pollutants, but only NO_X and PM-10 had quantifiable increases in emission rates, increasing by .003 pounds per megawatt hour ("lbs/MW-hr") and .01 lbs/MW-hr, respectively (Exhs. CF-EFSB-A-1; CF-EFSB-EA-3-R2; Tr. 4, at 340-343).

[15] The Company testified that the regulatory requirements are similar for both facility configurations (Tr. 4, at 364). However, the Company noted that with the compliance configuration, the proposed facility's emissions of SO_2 and CO would be under the federal regulatory thresholds for BACT (id.). IDC further testified that Massachusetts BACT still applies to all criteria pollutants, and thus there is no difference in the air quality controls being applied in this case (id. at 365).

Table 1: Annual Emissions of Criteria and Non-Criteria Pollutants, in Tons Per Year ("tpy")

Pollutant	Approved Configuration	Compliance Configuration
Nitrogen Oxides	160	122
Carbon Monoxide	270	86
Volatile Organic Compounds	49	22
Total Particulate Matter	87	86
Sulfur Dioxide	50	37
Lead	0.34	0.26
Sulfuric Acid Mist	19	12
Ammonia	60	45
Formaldehyde	29	10
Arsenic	0.00104	0.00079
Cadmium	0.0179	0.0136
Chromium (IV)	0.0276	0.0209
Mercury	0.00936	0.00710

Source: Exh. CF-IDC-2 (tabs. 3.1-1, 3.1-2).

IDC provided a comparison of maximum pollutant concentrations using the worst-case operating scenarios for each configuration (Exh. CF-IDC-2, at 3-3 to 3-4).[16] The Company indicated

[16] The Company analyzed plant operation at 100, 75, and 50 percent of plant capacity under a variety of ambient temperatures (Exh. CF-EFSB-A-5). The Company explained that the worst-case operating and ambient conditions used to produce the maximum impacts of the compliance configuration were different from those used to evaluate the approved configuration (id.). The Company also testified that the number of start-ups and shut-downs and the capacity at which the plant would operate are primarily determined by market conditions and maintenance requirements and should not differ between the two configurations (Tr. 4, at 346-348).

that the compliance configuration resulted in lower worst-case concentrations for all measures of criteria pollutants except 3-hour and 24-hour SO_2 and 24-hour and annual PM-10 (id. at 3-4). The Company also calculated the worst-case impacts of the compliance configuration using the same operating and ambient conditions that it used to evaluate the approved configuration and determined that all pollutant concentrations would decrease, except for annual PM-10, which would remain the same (Exh. CF-EFSB-A-4).[17] The Company provided data showing that the ambient levels of PM-10 and SO_2 in Massachusetts are well below NAAQS (Exh. CF-BPA-A-5, at 5-13). The Company found that the change from the approved to the compliance configuration would reduce the maximum annual concentrations of all air toxics, would reduce maximum 24-hour concentrations of sulfuric acid, ammonia, and formaldehyde, and would increase maximum 24 hour concentrations of arsenic, cadmium, chromium, lead and mercury (Exh. CF-IDC-2, at 3-5 to 3-6).[18] The Company noted that all annual and 24-hour air toxic concentrations would be below Massachusetts TELs and AALs (id.).

IDC also recalculated the "cumulative impacts" of existing and proposed facilities (calculated as the sum of existing worst-case ambient conditions, worst-case concentrations of pollutants emitted from existing and proposed sources, and IDC's contribution) for the compliance configuration (Exhs. RR-CF-EFSB-12; CF-BPA-A-5, at 6-22 to 6-27). The Company provided tables that showed that for criteria pollutants, the modeled cumulative impacts of the proposed facility in the compliance configuration differed by less than one percent from those with the approved configuration (Exhs. RR-CF-EFSB-12; CF-EFSB-EA-8-R3, at 6.6-3a).

Finally, the Company stated that annual emissions of CO_2 using the compliance configuration

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[17] IDC indicated that the locations of maximum impact differed somewhat, but were generally similar for the two configurations (Exhs. CF-EFSB-EA-8-R3, at tab. 6.5-2a, App. G; CF-BPA-A-5 (att.) at tab. 6.5-2, App. G).

[18] IDC indicated that the maximum modeled concentration of these toxics and of SO_2 and PM-10 were higher, because the proposed facility's worst-case impacts in the compliance configuration were during 50 percent plant capacity, rather than 100 percent capacity, thus resulting in lower plume buoyancy (Exh. CF-BPA-A-8; Tr. 4, at 358).

would be reduced to 1,845,086 tpy.[19] The Company explained that CO_2 emissions were not reduced in proportion to the reduction in plant output, because the GE turbine is slightly less efficient than the SW turbine (Exhs. CF-IDC-2, at 3-1, n.1; CF-EFSB-A-1).

IDC has provided the Siting Board with a comprehensive comparison of the air quality impacts of its proposed facility in the approved configuration and in the compliance configuration. The record shows that, although the GE turbine is somewhat less efficient than the SW turbine, the proposed facility in the compliance configuration meets the Siting Board's TPS for both criteria and non-criteria pollutants.[20] Consequently, the reconfiguration of the proposed facility does not trigger a requirement for the further analysis of alternative generating technologies.

The record demonstrates that the proposed facility would produce approximately 24 percent less power in the compliance configuration than it would in the approved configuration. The Company's analysis demonstrates that, with the use of the compliance configuration in place of the approved configuration, annual emissions, in tpy, of PM-10 would be reduced by 1 percent, annual emissions of CO, VOCs, sulfuric acid mist, and formaldehyde would be reduced by 37 to 68 percent, and annual emissions of all other pollutants would be reduced in approximate proportion to the reduction in proposed output. On balance, the Siting Board finds that the overall reduction in annual emissions resulting from the change in configuration would be proportionately greater than the reduction in output.

The record also contains information on expected maximum pollutant concentrations under "worst-case" conditions.[21] The record indicates that modeled maximum annual concentrations of PM-

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[19] In the underlying decision, the Siting Board found that the proposed facility in the approved configuration would emit 2,340,000 tpy of CO_2. Final Decision at 273.

[20] The Siting Board notes that the emissions estimates for the GE turbine are based on nearly a decade of operating experience, and may therefore be more accurate than the emissions estimates for the newer SW turbine.

[21] The Siting Board notes that the Company used different "worst-case" assumptions for the compliance configuration than it did for the approved configuration. When the same

(continued...)

10 and maximum short-term concentrations of SO_2 and PM-10 would be greater using the compliance configuration, while all modeled maximum concentrations of NO_x and CO, and maximum annual concentrations of SO_2 would be reduced. Similarly, use of the compliance configuration in place of the approved configuration would increase maximum short-term concentrations of certain air toxics and reduce others, while the maximum annual concentrations of all air toxics would be reduced. The record demonstrates that "worst-case" maximum concentrations of all pollutants would remain well below applicable SILs, TELs, or AALs, and that current levels of PM-10 and SO_2 are well below non-attainment levels in Massachusetts. In addition, the record indicates that the cumulative impacts have not changed significantly as a result of using the compliance configuration. Given that more maximum pollutant concentrations go down than up, on balance, the Siting Board concludes that the variations in modeled maximum and cumulative concentrations suggest that air quality impacts would be slightly less as a result of using the compliance configuration.

Finally, the record demonstrates that use of the compliance configuration in place of the approved configuration would lower estimated CO_2 emissions by approximately 21 percent from 2,340,000 tpy to 1,845,086 tpy. The Siting Board notes that, in the underlying case, we required IDC to offset 1 percent of its CO_2 emissions by making a contribution of $745,402, to be paid in five annual installments, to a cost-effective CO_2 offset program or programs to be selected upon consultation with Staff of the Siting Board.[22] Final Decision at 273-274. Because the proposed facility's expected CO_2 emissions have been reduced, we hereby amend Condition B. Now, in order to minimize CO_2

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21 (...continued)
assumptions were used, maximum concentrations of all pollutants were reduced under the compliance configuration, except for annual PM-10 which was unchanged. The record does not suggest that the GE turbines will have more start-ups and shut-downs than the SW turbines, or run at different loads or more often than the SW turbines; these operating characteristics appear to be determined by standard maintenance requirements and market conditions, respectively. Thus, assuming both configurations would run at full load, it is likely that the change in configuration might result in even fewer air impacts in the future.

22 The Siting Board also required IDC to make an additional first year offset contribution of $5,549 to a selected CO_2 offset program or programs to offset the clearing of woodlands for the proposed project. Final Decision at 359.

emissions, the Siting Board requires the Company to provide CO_2 offsets through a total contribution of $587,749[23] to be paid in five annual installments during the first five years of facility operation, plus a contribution of $5249[24] in the first year of facility operation as an offset for on-site tree clearing, to a cost-effective CO_2 offset program or programs to be selected upon consultation with the Staff of the Siting Board. If the Company in consultation with the Staff of the Siting Board selects a CO_2 offset program or programs with an overall projected cost to the Company of less than $1.50 per ton, a different cost commitment may be set which will provide offsets for more than 1 percent of facility CO_2 emissions with a cost commitment of less than $587,749 (not including the additional offsets required above for on-site tree clearing, at a cost of $5249). Alternatively, the Company may elect to provide the entire contribution within the first year of facility operation. If the Company so chooses, the CO_2 offset requirement would be satisfied by a single first-year contribution, based on the net present value of the five-year amount, to a cost-effective CO_2 offset program or programs to be selected upon consultation with the Staff of the Siting Board.[25]

Accordingly, the Siting Board finds that, with the revised condition concerning CO_2 offsets, the air quality impacts of the proposed facility in the compliance configuration would be less than those

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[23] The contribution is based on offsetting 1 percent of facility CO_2 emissions, over 20 years of operation, at $1.50 per ton. The 20-year amount of $553,526 is first distributed as a series of payments to be made over the first five years of project operation, then adjusted to include an annual cost increase of 3 percent. Annual contribution amounts would be distributed as follows: year one $110,705; year two $114,026; year three $117,447; year four $120,971; year five $124,971. See ANP-Blackstone Decision, EFSB 97-2, at 114; Cabot Power Decision, EFSB 91-101A; ANP-Bellingham Decision, EFSB-97-1, at 104; Millennium Power Decision, EFSB 96-4, at 114, 117-118.

[24] Because of a typographical error, Condition B in the Decision Section in the underlying decision erroneously tracked the amount of tree clearing offset. In Section III. B of the underlying decision, the air analysis, the Siting Board calculated that the contribution to compensate for tree clearing would be $5249; in this decision, we use the correct $5249 figure rather than the $5549 figure used in the Decision Section.

[25] The net present value amount is based on discounting, at ten percent, the five annual payments totaling $587,749. The single up-front payment of $483,647, which includes the $5249 offset for tree clearing, would be due by the end of the first year of operation.

reviewed by the Siting Board in the underlying case.

B. Water Resources

In the underlying case, IDC stated that its primary water source would be the Bellingham municipal water supply, which obtains its water from wells in the Blackstone and Charles River watersheds. Final Decision at 277-278. The Company described three water use scenarios: "Case 1", which would occur during initial operation when the proposed facility would not have access to the Town's sewer system; "Case 2", which assumes connection to a new Town sewer system and construction of an on-site water treatment system; and "Case 3", which assumes use of a reverse osmosis filtering system. Id. at 275. In the compliance proceeding, the Company stated that it is no longer considering Case 3 (Exh. CF-IDC-2, at 3-7 to 3-8). The Company provided the proposed facility's water requirements for Case 1 and Case 2 under both the approved and compliance configurations (id.). This comparison is set forth in Table 2, below.

Table 2: Water Use of the Proposed Facility, in Gallons Per Day ("gpd") Under the Approved and Compliance Configurations

Water Use Scenario		Approved Configuration	Compliance Configuration
Case 1	Annual Average	20,971	20,228
	Baseload	10,300	12,900
	Evaporative Cooling	46,700	37,900
Case 2	Annual Average	27,046	26,147
	Baseload	16,375	17,922
	Evaporative Cooling	52,775	45,978

Source: See exhibits CF-IDC-2, at 3-8; CF-EFSB-W-1; CF-IDC, figs. 3.3-2a to 3.3-3b.

IDC testified that in the compliance configuration it would still obtain its water from the Town of Bellingham (Tr. 3, at 308-309). The Company stated that the annual average water use would decrease under the compliance configuration, assuming 107 days of evaporative cooling (Exh. CF-IDC-2, at 3-8; Tr. 3, at 295-296).[26] IDC noted that water use during evaporative cooling would be lower using the compliance configuration, but that water use during baseload operation would increase (Exh. CF-IDC-2, at 3-8; Tr. 3, at 295-296). The Company explained that the expected increase in water use during base operation was the result of higher vent and miscellaneous losses and more HRSG blowdown (Tr. 3, at 295-296). The Company stated that it had incorporated a number of water conservation strategies into the proposed facility, and argued that there were no additional feasible water mitigation measures that would further reduce the plant's water use (Exh. RR-CF-EFSB-7; Tr. 3, at 297-298).[27]

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[26] The Company also provided estimates of average annual water use for the proposed facility in the compliance configuration based upon the assumption of fewer evaporative cooling days (Exh. RR-CF-EFSB-9).

[27] The Company noted that it had incorporated a number of strategies to decrease water use,

(continued...)

IDC stated that the Case 2 sewage discharge from the proposed facility in the approved configuration would be 6575 gpd (Exh. CF-IDC-8, figs. 3.3a, 3.3b).[28] The Company indicated that the proposed facility in the compliance configuration would discharge 5522 gpd of sewage during base operation and 8578 gpd during evaporative cooling (Exh. CF-EFSB-W-1; Tr. 3, at 303). The Company explained that greater discharge of sewage during evaporative cooling with the compliance configuration resulted from the need to clean the demineralizers more often (Tr. 3, at 305-306). The Company testified that it had agreed with the Town to have a holding tank for sewage so that the flow would be more steady state (id. at 304).

The Company stated that the required impervious surface for the proposed facility would be reduced from approximately 7.11 acres under the approved configuration to approximately 4.92 acres under the compliance configuration (Exh. RR-CF-EFSB-8). The Company testified that the reduction in impervious surface resulted in lower estimated total stormwater discharges, but that the levels of water quality and peak discharge would be the same as under the approved configuration (Tr. 3, at 300-301).

In the Final Decision, the Siting Board reviewed the potential impacts of IDC's water use on the Town of Bellingham municipal system and on the Charles River and Peters Brook watersheds. Final Decision at 286-287. The Siting Board concluded that the permitted capacity of Town wells could accommodate worst-case water use for the proposed facility. Id. at 286. The Siting Board noted that the basin-wide water use as a percentage of low flow was relatively high for both the Charles River and Peters Brook; however, we indicated that water use concerns were partially offset by: (1) a high groundwater recharge rate in relation to water use; (2) the expectation that future water demand would grow at significantly lower rates than earlier identified, and well below limits set in MDEP

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27 (...continued)
including but not limited to recycling HRSG blowdown and forgoing steam augmentation (Exh. RR-CF-EFSB-7).

28 The Company provided water balances showing that during all Case 1 operations for both configurations, 500 gpd of sewage would be trucked offsite (Exhs. CF-IDC-8, figs. 3.3-2a, 3.3-4b; CF-EFSB-W-1).

permits; and (3) IDC's success in minimizing the proposed level of the facility's water consumption, which, on a per megawatt basis, was the lowest approved to date. Id. at 285, 288-289. The Siting Board found that the Company had minimized the impacts of the proposed facility with respect to water supply, wastewater and stormwater discharges and directed IDC to submit a report to the Siting Board concerning water use during the first two years of operation. Id. at 289.

The record shows that a change from the approved to the compliance configuration would increase Case 2 water use by 1547 gpd during baseload operations, but decrease water use by 6797 gpd during the more water intensive evaporative cooling operations. Overall, the average annual water use would be approximately 899 gpd lower under the compliance configuration than under the approved configuration, assuming 107 days per year of evaporative cooling. This benefit would be reduced or eliminated for scenarios in which the number of evaporative cooling days is less; however, under these scenarios yearly water consumption also decreases, lessening our concern about water use. The Siting Board notes that, in the underlying decision, it relied in part on the proposed facility's lower per-MW water consumption in finding that the proposed facility's water use impacts had been minimized. In this proceeding, IDC did not provide new "worst-case" water use figures; however, even assuming no reduction in worst-case water requirement under the compliance configuration, the proposed facility's per-MW water consumption remains the lowest approved by the Siting Board to date for a combined-cycle generation facility (25,665 gpy per megawatt).[29] The Siting Board notes that the record indicates that the Company has employed all feasible means to reduce water use by the proposed facility in the compliance configuration.

The record shows that the change from the approved to the compliance configuration would result in lower sewer discharges during base operation, but higher sewer discharges during evaporative cooling. However, the record indicates that sewage would be held on-site for gradual release, and that the increase in sewage therefore would not significantly affect the sewerage system. The record

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[29] In EFSB 97-5, the Siting Board approved a worst-case average annual water use of 36,915 gpd. Final Decision at 286. Since the Company did not update the worst-case average annual water use, the Siting Board will use the estimate in the underlying decision in its review of Condition H of the underlying decision.

demonstrates that the total stormwater discharges from the proposed site with the compliance configuration would be less than with the approved configuration. The record does not indicate any other changes with respect to water resource impacts.

Based upon the review of water use, sewer, and stormwater impacts, the Siting Board finds that, as a result of using the compliance configuration, the water quality impacts of the proposed facility in the compliance configuration would be substantially similar to those reviewed by the Siting Board in the underlying case.

C. Wetlands

In the Final Decision, the Siting Board found that the Company had designed the facility layout so that no portion of the power plant, parking areas, or utility lines would be located in wetlands, buffer zone, or land subject to the Wetlands or Rivers Protection Act, and consequently found that the impacts to wetlands had been minimized. Final Decision at 291. The Company stated that the power plant, parking areas, and utility lines would remain outside wetlands, buffer zone, and lands subject to the Wetlands or Rivers Protection Act under the compliance configuration (Exhs. CF-IDC-2, at 3-9; CF-IDC-2 (fig. 2.1-2)). The Company added that the proposed facility would remain outside the 200 foot wetlands buffer zone requested by the Town (Exh. CF-IDC-2, at 3-9).[30] The record does not indicate that the change in configuration would result in any other changes to wetland impacts. Consequently, the Siting Board finds that the wetlands impacts of the proposed facility in the compliance configuration would be substantially similar to those reviewed by the Siting Board in the underlying case.

D. Solid and Hazardous Waste

In the underlying case, the Company stated that hazardous and non-hazardous waste would be produced during construction and operation of the proposed facility, and where possible and cost-

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[30] IDC testified that it had notified the Bellingham Conservation Commission of the proposed changes, but had not received a reply (Tr. 3, at 258).

effective, waste would be recycled, reclaimed or reused. Final Decision at 291-292. In addition, the Company stated that it would ensure that all hazardous and solid waste would be properly handled in compliance with all applicable laws and regulations. Id. at 292. In the underlying decision, the Siting Board found that the solid waste impacts of the proposed facility would be minimized. Id.

IDC stated that the expected production of solid waste would decrease by approximately 10 percent during construction and 5 percent during operation using the compliance configuration (Exhs. CF-IDC-2, at 3-9; CF-EFSB-S-1). The Company stated that the production of hazardous waste during operation would decrease slightly under the compliance configuration, but noted that the proposed facility would produce 52 percent less spent SCR using the compliance configuration rather than the approved configuration (Exh. CF-EFSB-S-1; Tr. 3, at 316). The Company did not anticipate any other changes to solid or hazardous waste impacts due to the change in configuration.

The record indicates that the proposed facility in the compliance configuration would generate less solid and hazardous waste than the proposed facility in the approved configuration. The record does not indicate that the change in configuration would result in any other changes to solid and hazardous waste impacts. Accordingly, the Siting Board finds that the solid and hazardous waste impacts of the proposed facility in the compliance configuration would be less than those reviewed by the Siting Board in the underlying case.

E. Visual

In the underlying proceeding, the Siting Board reviewed a visual analysis of 14 representative viewsheds and noted that the proposed facility would be somewhat screened from view in most directions as a result of its proposed wooded buffer, and that from the majority of viewshed locations, views of the proposed facility likely would be limited to the upper portions of the stack as seen above existing trees. Final Decision at 293-298. The Siting Board concluded that even with the 190 foot stack, the viewshed analysis indicated the potential for visual impacts in certain areas.[31, 32] Final

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[31] The Siting Board concluded that visual impacts would occur along Hartford Street, areas of

(continued...)

Decision at 298. The Siting Board found that, with the implementation of a condition concerning reasonable off-site mitigation of visual impacts, including shrubs, trees, window awnings or other mutually-agreeable measures, the environmental impacts of the proposed facility with a stack height of 190 feet at the proposed site would be minimized with respect to visual impacts. Id. at 300.

In the compliance proceeding, IDC stated that the change in configuration would require a change in facility layout and components (Exh. CF-IDC-2, at 2-1 to 2-2 (fig. 2.1-2)). Specifically, the proposed facility in the compliance configuration would have only one steam turbine and one ACC instead of two as in the approved configuration. In addition, the stack would be relocated 200 feet to the north, and although its height would be unchanged at 190 feet, it would be built at a six foot higher ground elevation (Exhs. CF-IDC-2, at 2-1, 3-10 (fig. 2.1-2); CF-IDC-8 (fig. 2.1-3); CF-BPA-V-1-C; Tr. 3, 278-281). IDC also noted that the ACC would be 25 feet higher and the turbine buildings would be between 15 and 40 feet lower (Exh. CF-BPA-V-1-C; Tr. 3, at 281). The Company estimated that the total mass of the proposed facility would be reduced from 12,006,000 cubic feet to 11,883,000 cubic feet as a result of the change in configuration (Exh. RR-CF-EFSB-6).

The Company presented a revised viewshed analysis for the proposed facility in the compliance configuration, using photographs and viewshed locations developed during the underlying case, onto which the proposed facility in the compliance configuration was digitized.[33] The Company asserted that the change in configuration would reduce visual impacts from four viewsheds (#'s 2, 9, 11, and 14), increase visual impacts for viewshed 5, and would not significantly change for the remaining nine

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[31] (...continued)
Route 140, and in nearby residential areas located primarily to the east of the proposed site. Final Decision at 298.

[32] In addition, the Siting Board noted that the visual impacts would be greater, overall, with the GEP 225-foot stack than with IDC's preferred 190 foot stack. Final Decision at 298.

[33] In the Final Environmental Impact Report ("FEIR") for the underlying case, the Company stated that it used survey and photographic instrumentation and other techniques to establish the correct position of the proposed facility at each of the viewsheds (Exh. CF-IDC-8, at 4.3-5). The Company indicated that it did not conduct the same level of viewshed documentation for the proposed facility with the compliance configuration (Tr. 3, at 272-274).

viewsheds (#'s 1, 3, 4, 6, 7, 8, 10, 12, and 13) (Exh. CF-IDC-2, at 3-10, (App. B)). The Company stated that the viewshed photographs previously used for the analysis of the proposed facility in the approved configuration were applicable to the proposed facility in the compliance configuration, because (1) the viewsheds selected are the best representations of the visual impacts that would result from the proposed project in all directions; and (2) a simple shift in the location from which the photograph was taken would not result in a different view of the facility (Exhs. CF-BPA-V-3; CF-EFSB-V-1; Tr. 3, at 278-279). At the request of the Joint Intervenors, IDC also submitted six new viewshed analyses, taken from points to the east and southeast of the proposed facility, which indicate that the proposed facility in the compliance configuration would be visible from at least two other locations (#'s 15 and 19).[34] IDC testified that any improvement in visual impacts resulting from the change in configuration would be minor (Tr. 3, at 280).

The Company indicated that, in the underlying case, it had not found any noteworthy landscape or historic areas within five miles of the proposed facility, and argued that the proposed facility in the compliance configuration therefore would not have an impact on historic or landscape areas (Tr. 3, at 287-289). In addition, the Company asserted that the proposed facility's plume frequency and size would not change as a result of the change in configuration (Exh. CF-IDC-2, at 3-11).

The record indicates that the reconfiguration of proposed facility would reduce the mass of the proposed facility, increase the height of certain elements while lowering the height of others, and relocate the stack to the north by 200 feet. The Siting Board has reviewed the viewshed photographs submitted by the Company and concludes that views from most points are essentially unchanged by the change in configuration, although the proposed facility in the compliance configuration may be somewhat less visible in three viewsheds (#'s 2, 11, and 14) and somewhat more visible from two viewshed (#'s 5 and 6). The Siting Board notes that the Company's visual analysis is only representative, and that the record shows that the proposed facility would be visible from two other locations (#'s 15 and 19), for which comparative viewshed analyses with the approved configuration

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[34] The Siting Board notes that the Company did not provide views from these locations for the proposed facility in the approved configuration.

are not available.

In the underlying decision, the Siting Board found that the visibility of the proposed facility was primarily dependant upon stack height and vegetative buffer. Nothing in the record indicates that the slight movement of the stack, in itself, is likely to cause a significant increase or decrease in visual impacts. Although the record indicates the compliance configuration would result in a minor increase in stack elevation and a small change in vegetative buffer, these changes are not likely to significantly affect visual impacts. Thus, the Company's updated viewshed analysis adequately demonstrates the extent of visual impacts based on representative views of the proposed facility in the a compliance configuration. In addition, in the underlying decision the Siting Board conditioned the proposed facility upon the Company providing adequate screening to residences and roadways or other crossings visually affected by the proposed facility. This condition still applies, and any slight variation in facility visibility upon residences can be addressed by this condition. Accordingly, the Siting Board finds that the visual impacts of the proposed facility in the compliance configuration would be substantially similar to those reviewed by the Siting Board in the underlying case.

F. Noise

In the Final Decision, the Company provided ambient noise measurements from ten monitoring locations representing various property line and residential receptors surrounding the proposed site (Exh. CF-EFSB-EA-R3, Section 7, App. D). Final Decision at 301. Using twenty minute continuous noise monitoring intervals, the Company presented L_{90} measurements for six residential receptor locations and four property line locations, with nighttime ambient levels ranging from 36 to 40 dBA and daytime ambient levels ranging from 36 to 42 dBA (Exhs. RR-CF-EFSB-2).[35] Final Decision at 302. In addition, the Company modeled the expected noise levels from the plant, and estimated daytime and

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35 The Siting Board notes that in the underlying case, the Company had testified that the nighttime ambient at PL-4A was 36 dBA (Exh. CF-EFSB-N-5). In this proceeding the Company stated that 36 dBA was an error and 34 dBA is the correct number (id.; Exh. RR-CF-EFSB-2; Tr. 1, at 9-14). Therefore, the Siting Board will use the more conservative 34 dBA number as the nighttime ambient for PL-4A for comparison purposes.

nighttime increases in ambient noise levels caused by the operation of the proposed facility in the approved configuration (Exhs. RR-CF-EFSB-EN-48; CF-EFSB-EA-8-R3, at 7-16). The Siting Board found that if the facility were constructed as proposed, daytime and nighttime L_{90} increases at property lines would range from 3 to 8 dBA and that daytime and nighttime L_{90} increases would be 4 dBA or less at all residential receptors except receptor R-4.[36] Final Decision at 314.

In the Final Decision, the Siting Board directed IDC to implement additional noise mitigation that would limit L_{90} noise increase at receptor R-4 to 5 dBA. Id. at 315. In addition, the Siting Board directed the Company, in consultation with the Bellingham Board of Selectmen and MDEP and with comment from intervenors to the underlying proceeding, to develop a noise compliance monitoring protocol and baseline noise measurements, taken on a schedule chosen in consultation with MDEP, that would allow for the implementation of an on-going periodic noise monitoring program to begin within six months of the commencement of commercial operation. Id. Finally, the Siting Board found that with the implementation of the foregoing conditions, the environmental impacts of the proposed facility would be minimized with respect to noise. Id. at 316.[37]

In its Compliance Filing, the Company compared the calculated noise impact of the proposed facility in the two configurations and asserted that the noise impacts of the proposed facility in the compliance configuration would be the same as or less than the noise impacts of the proposed facility in the approved configuration (Exh. CF-IDC-2, at 3-13). Using the ambient measurements presented in the original proceeding, the Company compared the calculated noise impacts of the two configurations, as shown in Table 3, below.

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[36] The Siting Board noted that at receptor R-4, the closest residence to the proposed site on Box Pond Road, the maximum daytime L_{90} increase would be 7 dBA, and the maximum nighttime increase would be 8 dBA. Final Decision at 314.

[37] This finding was based upon the Siting Board making an initial finding of fact that the construction noise impacts of the proposed facility had been minimized. Final Decision at 316.

Table 3: Comparison of the Calculated Noise Impacts in dBA of the Proposed Facility in the Approved and Compliance Configurations

Receptor Location	Nighttime Ambient, L_{90}	Daytime Ambient, L_{90}	Calculated Approved Configuration Noise/Leq	Calculated Compliance Configuration Noise/Leq	Final Nighttime Ambient Increase		Final Daytime Ambient Increase	
					Approved Config.	Compliance Config.	Approved Config.	Compliance Config.
R-2 Taunton St., E	38	38	34	33	1	1	1	1
R-3 Box Pond Rd., SE	40	38	39	37	3	2	4	3
R-4 Closest House, SW	35	36	42	38	8	5	7	4
R-5 Barrows Rd., SW	39	38	34	32	1	1	1	1
R-6 Rt. 140 Residence, W	34	42	33	30	2	1	0	0
PL-1A Property Line, NW	38	36	43	43	6	6	8	8
PL-2 Property Corner, N	38	36	40	40	4	4	6	5
PL-3 Across Depot Street, E	40	40	46	44	7	6	7	6
PL-4A Property Line, W	34	39	38	35	5	3	3	1

Source: Exhs. CF-IDC-2, tab. 3.6-2 and RR-CF-EFSB-2.

IDC explained that three factors contributed to the reduction in noise associated with the

change to the compliance configuration: (1) the changes in layout; (2) the reduction in the number of components; and (3) the use of different mitigation techniques (Exh. RR-CF-EFSB-3; Tr. 1, at 84-89).[38]

The Company stated that it was proposing to use a similar noise mitigation package under the compliance configuration as under the approved configuration, but noted a few differences including quieter transformers, acoustic treatment of the turbine and HRSG building walls and vents, and muffling for the turbine and HRSG vent fans (Exhs. CF-BPA-A-5 (Att.) App. D at 42); CF-CF-EFSB-EA-8-R3 (App. D at 49); RR-CF-EFSB-3). IDC testified that the type of noise guarantees are essentially the same for the two different configurations, and stated that the Engineering, Procurement, and Construction ("EPC") contractor would be required to construct the facility to meet the noise limits set in its permits (Tr. 1, at 83). The Company provided a Best Available Noise Control Technology analysis for the proposed facility in the compliance configuration, and testified that the only way to further reduce noise at receptor R-4 would be to incorporate the design with the lowest achievable impact, which would cost approximately
16 million dollars and hold the increase in noise levels at receptor R-4 to 2 dBA
(Exh. CF-BPA-A-5 (att.) App. D at 13).[39]

The Joint Intervenors provided additional noise monitoring data, asserting that existing ambient noise levels are lower than those presented by the Company in either the underlying case or in its Compliance Filing (Exhs. CF-BPA-GT-1; CF-EFSB-GT-2). The Joint Intervenors also provided a noise impact analysis based on their own monitoring data and calculated the increases in daytime and nighttime ambient noise levels for both the approved and compliance configurations (Exhs. CF-BPA-

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38 For example, the Company explained that, overall, the compliance configuration's ACC would have a higher sound rating, but since there is only one and it is further from the closest residence, it contributes less to overall sound levels than the two ACCs in the approved configuration (Exh. RR-CF-EFSB-3; Tr. 1, at 95). Similarly, as discussed in earlier sections, the compliance configuration will only have one steam turbine and one water-glycol cooler (Exhs. RR-CF-EFSB-3; CF-BPA-A-5 (att.) App. D at 20-34).

39 The Company explained that this cost estimate includes nearly 13 million dollars in losses due to lower plant efficiency and increased fuel use (Exh. CF-BPA-A-5 (att.) App. D at 13).

GT-1; CF-EFSB-GT-2; CF-EFSB-GT-3). Mr. Tocci, a witness for the Joint Intervenors, testified that the proposed facility with the compliance configuration would have less noise impacts than the proposed faculty in the approved configuration (Tr. 2, at 224-227). Mr. Tocci also stated that the noise level estimates presented by the Company for the compliance configuration were reasonable based upon his experience with levels for other such projects (id. at 227-228). Table 4, below, compares the noise impacts of the two configurations using ambient data provided by the Joint Intervenors.

Table 4: Comparison of Calculated Noise Impacts (in dBA) of the Proposed Facility With Ambient Levels[40] Presented by the Joint Intervenors

Receptor Location	Nighttime Ambient, L_{90}	Daytime Ambient, L_{90}	Calculated Approved Configuration Noise/Leq	Calculated Compliance Configuration Noise/Leq	Final Nighttime Ambient Increase		Final Daytime Ambient Increase	
					Approved Config.	Compliance Config.	Approved Config.	Compliance Config.
Rovedo (PL-2)[41]	31.0	40.5	40	40	10	9.5	3	2.8
Eckert (R-6)	25.5	32.0	33	30	8.2	5.8	3	2.1
62 Box Pond Road (R-4)	29.0	33.0	42	38	13.2	9.5	9.5	6.2

Source: Exhibits CF-BPA-1; CF-EFSB-GT-2; CF-EFSB-GT-3.

The Company and the Joint Intervenors each have presented technical analyses comparing the operational noise impacts of the proposed facility in the approved configuration with the operational noise impacts of the proposed facility in the compliance configuration. While the parties disagree as to how ambient noise levels should be calculated or monitored, they are in agreement that the change from the approved configuration to the compliance configuration would reduce the operational noise impacts

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40 The Joint Intervenors presented three methods to calculate L_{90} levels (Exh. CF-BPA-1). The above table shows ambient levels calculated by what the Joint Intervenors refer to as the lowest monitored L_{90} method, because this method resulted in the lowest L_{90} levels.

41 The Company agreed with the Joint Intervenors that receptor locations Rovedo, Eckert, and 62 Box Pond Road are essentially the same as its own noise receptor locations PL-2, R-6, and R-4 respectively for the purposes of establishing the minimum ambient noise levels in the vicinity of the proposed facility (Tr. 1, at 16, 21, 23).

of the proposed facility to levels below those accepted in the underlying decision.[42] The record shows that the proposed facility in the compliance configuration would not increase the operational noise impacts of the proposed facility at any receptor and could reduce the noise impacts of the proposed facility by 1 to 3 dBA at certain receptors. In addition, the noise analysis presented in Table 3 above demonstrates that IDC has designed the proposed facility in the compliance configuration to meet Condition D of the underlying decision -- that is, to limit noise increases at receptor R-4 to 5 dBA over the ambient level presented in the underlying decision. The record also indicates that noise levels associated with the construction of the proposed facility would not change with the change in configuration, but that the construction period would be shortened, thus reducing the period of time during which neighbors are affected by construction noise. Accordingly, the Siting Board finds that the noise impacts of the proposed facility in the compliance configuration would be less than the noise impacts of the proposed facility in the approved configuration.

G. Safety

In the underlying decision, the Siting Board concluded that IDC had taken all feasible steps to minimize the safety risks from ammonia. Final Decision at 321. In addition, the Siting Board found that there would be no ground level fogging or icing resulting from the operation of the proposed facility. Id. at 322. Finally, the Siting Board found that, with the implementation of the proposed mitigation and a condition concerning chemical storage and handling, the environmental impacts of the proposed facility would be minimized with respect to safety. Id.

In the compliance proceeding, the Company asserted that the change in configuration would reduce safety concerns associated with ammonia delivery and storage (Exh. CF-IDC-2, at 3-13 to 3-

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[42] Condition D of the underlying decision requires IDC to implement additional noise mitigation as necessary to limit L_{90} increases at receptor R-4 to 5 dBA. The record of the underlying case does not contain an analysis of whether this additional noise mitigation would have reduced noise impacts at other receptors. Therefore, the Siting Board's assessment of noise level changes for these receptors is based on a comparison to the calculated noise levels for the approved configuration in the underlying decision.

14). The Company stated that because the GE turbine has lower uncontrolled NO_X emissions than the SW turbines, less ammonia would be required for NO_X control (id. at 3-14).[43] The Company estimated that weekly deliveries of ammonia would be reduced from five to one due to the change in configuration (id. at 3-14). The Company testified that it considered reducing the size of the ammonia tank[44] so that less ammonia would be stored on-site, but determined that reducing the number of weekly deliveries would more effectively minimize safety impacts (Tr. 3, at 317-318). The Company also stated that the change to the compliance configuration would result in lower ammonia concentrations off-site in the event of a spill, because the ammonia would be located further from the closest residence (Exhs. IDC-2, at 3-12, (fig. 2.1-2); CF-IDC-8 (fig. 2.1-3)).[45] The Company indicated that there would be a small reduction in the use of other hazardous chemicals as a result of the reduction in the size of the plant (Tr. 3, at 316-317). The Company stated that there would be no other changes to safety impacts as a result of switching to the compliance configuration (Exh. CF-IDC-2, at 3-14).

The record indicates that a change in configuration would reduce potential safety issues associated with ammonia, because there would be fewer ammonia truck trips and because the off-site concentrations, in the event of a spill, would be lower at the nearest residences. In addition, the record indicates that other safety impacts would remain the same or be reduced as a result of switching to the compliance configuration. Accordingly, the Siting Board finds that the safety impacts of the proposed facility in the compliance configuration would be less than those reviewed by the Siting Board in the underlying case.

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43 The Company stated that the proposed facility in the compliance configuration has an ammonia slip of 9 parts per million ("ppm") versus 40 ppm for the proposed facility in the approved configuration (Exh. CF-IDC-2, at 3-13 to 3-14).

44 In the underlying decision, the Company proposed to store aqueous ammonia on site in a 40,000 gallon tank surrounded by a 110 percent capacity concrete dike. Final Decision at 317.

45 The Company stated that the ammonia concentration would be .30 ppm at the closest residence under the compliance configuration (Exh. CF- BPA-A-5 (att.) at 6-29), whereas it would be .49 ppm under the approved configuration. Final Decision at 318.

H. Traffic

In the underlying decision, the Company stated that up to 500 workers could be employed on the site at any one time during peak construction periods. Final Decision at 323. The Company also stated that the construction period would run for 24 months. Id. IDC stated that construction shifts would start between 6 a.m. and 7 a.m. and end between 2:30 p.m. and 3:30 p.m and indicated that it would stagger the arrival and departure of workers in order to reduce traffic impacts. Id. at 322-323. The Siting Board analyzed the evidence presented, including level of service studies, and found that, with the implementation of a condition relating to the development and implementation of a construction traffic mitigation plan, the environmental impacts of the proposed facility would be minimized with respect to traffic. Id. at 329.

The Company asserted that the traffic impacts of the proposed facility would be reduced as a result of the change in configuration (Exh. CF-IDC-2, at 3-14). IDC testified that construction of the proposed facility in the compliance configuration would take only 21 months and would require a peak workforce of 475 workers (Exh. RR-CF-EFSB-1, at 2-2; Tr. 3, at 261). The Company stated that the delay in the start of construction, from August of 2000 to spring of 2001, would not alter its analysis of traffic impacts (Tr. 3, at 262-263). IDC noted that it submitted traffic analyses that assumed the compliance configuration to the Town of Bellingham as part of a permit application, and asserted that the analyses show that traffic impacts would be at or below impacts previously reviewed by the Siting Board (id. at 264). The Company indicated that it would not change the shift schedules from those presented in the underlying case (id. at 265). Further, IDC testified that it would need fewer operational staff for the proposed facility in the compliance configuration than for the proposed facility in the approved configuration (id. at 262).[46]

The record indicates that construction of the proposed facility in the compliance configuration rather than the approved configuration would slightly reduce the number of construction workers

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[46] The Company stated that the operational workforce would be reduced from 35 to 28 employees (Tr. 3, at 262). We note that the Final Decision states that once the facility is fully operational, 18 employees would be on site in three shifts over a typical 24-hour period. Final Decision at 327.

arriving and leaving the site, and reduce total construction time by approximately three months. While these changes may slightly reduce the construction traffic impacts of the proposed facility, it is not clear that the reduction would be significant, given the relatively small reduction in peak construction traffic and uncertainty within the record whether the 3 month reduction in construction time would affect peak construction periods where expected traffic impacts are significant or off-peak periods when traffic impacts are already expected to be minimal. The record does not indicate that the change in configuration would result in any other changes to traffic impacts. Accordingly, the Siting Board finds that the traffic impacts of the proposed facility would be substantially similar to those reviewed by the Siting Board in the underlying case.

I. Electric and Magnetic Fields ("EMF")

In the underlying decision, the Siting Board concluded that off-site electric and magnetic fields would remain below the levels found acceptable in the 1985 MECo/ NEPCo Decision, where the Siting Board accepted edge-or-right of way levels of 1.8 kV/meter for electric fields and 85 mG for the magnetic fields.[47] Final Decision at 332. The Siting Board stated that the estimated worst-case maximum magnetic fields along the right-of-way ("ROW") from IDC's proposed interconnect to the West Medway substation would range between 58 milligauss ("mG") at road crossings and 74 mG at the lowest transmission line heights, representing an increase above the existing maximum level of approximately 4.7 mG at the eastern edge of the ROW. Id. at 332. The Siting Board found that with the Company's pursuit of cost effective designs for decreasing magnetic fields along the affected transmission lines that require upgrades, the environmental impacts of the proposed facility would be minimized with respect to EMF. Id. at 333.

In the compliance proceeding, the Company stated that the reduction in plant size from 700 to

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47 In the underlying case, the Company stated that the proposed facility would interconnect with an existing BECo line. Final Decision at 330. Further, the Company stated that because BECo did not propose to change the line voltage, existing electrical fields would remain unchanged. Id. In the compliance proceeding, IDC stated that there would be no change in the voltage of the interconnection under the compliance configuration (Exh. CF-IDC-2, at 3-14).

525 MW would reduce EMF impacts (Exh. CF-IDC-2, at 3-14). IDC presented testimony that the location of electrical interconnects and the switchyard would not change significantly with the change in configuration (Tr. 3, at 266). The Company anticipated that the new system impact study being conducted for the proposed facility in the compliance configuration would conclude that fewer electrical upgrades were needed to accommodate the facility than would have been required using the approved configuration (id. at 266-268).

Although the Company did not provide new estimates of EMF impacts, the record indicates that the reduction in plant size will probably reduce EMF impacts by nearly a third, since for lines of a given voltage magnetic fields are directly proportional to the amount of power a line carries.[48] In addition, the proposed facility in the compliance configuration may have fewer interconnection impacts. The record does not indicate that the change in configuration would result in any other changes to EMF impacts. Accordingly, the Siting Board finds that the EMF impacts of the proposed facility in the compliance configuration would be less than those reviewed by the Siting Board in the underlying case.

J. Land Use

In the underlying decision, the Company stated that it would construct the proposed facility on a small portion of a 156 acre industrial zoned site, that had been rezoned from agricultural/suburban to industrial in anticipation of the proposed project. Final Decision at 334, 341. The Siting Board noted that IDC's proposal, taken as a whole, created a new industrial use in a primarily undeveloped and residential area, but also contributed to the long-term preservation of the primarily undeveloped character of the area surrounding the proposed facility. Id. at 342. The Siting Board also noted that the Company's commitment to dedicating a significant portion of the Bellingham parcel (123 acres), and all of the Mendon parcel (65 acres), to serve as conservation land, open space or permanent undeveloped buffer contributed significantly to the minimization of the land use impacts of the proposed

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48 In the underlying decision and in previous cases, the Siting Board has recognized that magnetic fields are directly proportional to line current, although other mitigating factors can reduce the magnetic field levels.

facility. Id. The Siting Board found that, with the condition that the Company provide the Siting Board with copies of local permit applications and approvals and copies of any document that formalize the disposition of the Mendon parcel to serve as conservation land, open space or permanent undeveloped buffer, the environmental impacts of the proposed facility at the proposed site would be minimized with respect to land use impacts. Id. at 342-343.

The Company asserted that the change to the compliance configuration would reduce the proposed facility's land use impacts, because the total area of the site would be reduced from 41 to 38 acres and the facility footprint would be reduced from 17 to 14.5 acres, which would result in the permanent preservation of additional acreage (Exhs. CF-IDC-8, at 3-1; CF-IDC-2, at 3-14). The Company stated that impacts to wildlife species and habitats would be unchanged (Exh. CF-IDC-2, at 3-15).

The record indicates that the change in plant configuration would slightly reduce the size of the plant footprint and the active site, without causing any change in impacts to wildlife species and habitats, historical or archeological resources, or other resources examined by the Siting Board in its review of land use impacts. The Siting Board finds that the slight reduction in plant size would have minimal impact on land use issues, given that a significant portion of the proposed site had been dedicated for buffer. In addition, the record does not indicate that the change in configuration would result in any other changes to land use impacts. Accordingly, the Siting Board finds that the land use impacts of the proposed facility in the compliance configuration are substantially similar to those reviewed by the Siting Board in the underlying case.

K. Health

In the underlying decision, the Siting Board reviewed the baseline health conditions in the Bellingham area and analyzed the health impacts associated with criteria pollutants, air toxics, discharges to ground and surface waters, handling and disposal of hazardous materials, EMF, and noise. Final Decision at 343-344. In the underlying case, the Company provided reports concerning baseline health conditions in Bellingham and surrounding communities, none of which showed

statistically significant elevations of cancer hospitalizations. Id. at 344. Based on its compliance with MDEP air quality standards, the Siting Board found that the cumulative health impacts of criteria pollutant emissions from the proposed facility would be minimized. Id. at 348. In addition, the Siting Board found that the air toxics emissions from the proposed project would have no discernable public health impact. Id. at 349.

In the underlying decision, the Siting Board also found that the proposed project posed no health risks related to the contamination of potable groundwater or the disposal of wastewater and that the health risks of the proposed project related to the handling and disposal of hazardous materials would be minimized. Id. at 350. In addition, the Siting Board found that the health effects, if any, of magnetic fields associated with the proposed project would be minimized. Id. at 353. Finally, the Siting Board found that the health impacts of noise from the proposed project would be minimized, since noise increases at the residences, with the mitigation imposed by the Siting Board, would be 5 dBA or less. Id. at 354.

In the compliance proceeding, IDC asserted that the cumulative health impacts of proposed facility in the compliance configuration would be less than or no different from those associated with the proposed facility in the approved configuration (Exh. CF-IDC-2, at 3-15).

In Section II. A above, the Siting Board found the overall reduction in annual emissions resulting from the change in configuration would be proportionately greater than the reduction in output. The Siting Board also concluded that the variations in modeled maximum and cumulative concentrations suggest that air quality impacts would be slightly less as a result of using the compliance configuration.

As discussed in Sections II. B, D, and G above, the record demonstrates that there would be no change in the discharges to ground and surface waters as a result of the change in configuration and that the amount of ammonia and other hazardous chemicals used and disposed of would be reduced. In Section II. I above, the Siting Board found that the EMF impacts would be reduced as a result of using the compliance configuration. Finally, in Section II. F, the Siting Board found the noise impacts of the proposed facility would be reduced as a result of using the compliance configuration. Accordingly, the Siting Board finds that the cumulative health impacts of the proposed facility in the compliance

configuration would be less than those reviewed by the Siting Board in the underlying case.

L. Conclusions

The Siting Board has found in Sections II. A, D, F, G, I, and K above, that the air, solid and hazardous waste, noise, safety, EMF, and cumulative health impacts of the proposed facility in the compliance configuration would be less than those reviewed by the Siting Board in the underlying case. The Siting Board found in Sections II. B, C, E, H, and J above, that the water resource, wetland, visual, traffic, and land use impacts of the proposed facility in the compliance configuration would be substantially similar to those reviewed by the Siting Board in the underlying decision. Accordingly, the Siting Board finds that, with the implementation of the above-listed condition relative to air quality, the change from the approved configuration to the compliance configuration would not alter the balance of environmental considerations reached in the underlying decision. Therefore, the Siting Board finds that with the implementation of the conditions set forth in II. A. above, and the standing conditions from the Final Decision, the Company's plans for the construction of the proposed generating facility in the compliance configuration would minimize the environmental impacts of the proposed facility consistent with the minimization of cost associated with the mitigation, control, and reduction of the environmental impacts of the proposed generating facility.

III. CONSISTENCY WITH THE POLICIES OF THE COMMONWEALTH

A. Standard of Review

G.L. c. 164, § 69J¼ requires the Siting Board to determine whether the plans for construction of a proposed generating facility are consistent with current health and environmental protection policies of the Commonwealth and with such energy policies of the Commonwealth as are adopted by the Commonwealth for the specific purpose of guiding the decisions of the Siting Board. The health and environmental protection policies applicable to the review of a generating facility vary considerably depending on the unique features of the site and technology proposed; however, they may include existing regulatory programs of the Commonwealth relating to issues such as air quality, water-related

discharges, noise, water supply, wetlands or river front protection, rare and endangered species, and historical or agricultural land preservation. Therefore, in this section, the Siting Board summarizes the health and environmental protection policies of the Commonwealth that are applicable to the proposed project and discusses the extent to which the proposed project complies with these policies.

B. Analysis

In the Final Decision, the Siting Board reviewed the process by which IDC sited and designed the proposed project, and the environmental impacts of the proposed project as sited and designed. Final Decision at 122-123. As part of that review, the Siting Board identified a number of Commonwealth policies applicable to the design, construction, and operation of the proposed project. Id. The Siting Board found that plans for construction of the proposed project were consistent with current health and environmental protection policies of the Commonwealth and with such energy policies of the Commonwealth as have been adopted by the Commonwealth for the specific purpose of guiding the decisions of the Siting Board. Id. at 123.

In Section II. above, the Siting Board reviewed the environmental and health impacts of the proposed project in the compliance configuration to determine whether the change in configuration would alter the balance of environmental considerations reached in the underlying decision. We found that air, solid and hazardous waste, noise, safety, EMF, and cumulative health impacts, would be less than those reviewed by the Siting Board in the underlying decision, and water resource, wetland, visual, traffic and land use impacts would be substantially similar to those reviewed by the Siting Board in the underlying case. The Siting Board concludes that changes that would result from the compliance configuration would not alter the proposed facility's consistency with the identified policies of the Commonwealth. Accordingly, we find that IDC's plans for construction of the proposed project in the compliance configuration are consistent with current health and environmental protection policies of the Commonwealth and with such energy policies of the Commonwealth as have been adopted by the Commonwealth for the specific purpose of guiding the decisions of the Siting Board.

IV. DECISION

In the Final Decision for this matter issued on December 21, 1999, the Siting Board approved the petition of IDC Bellingham LLC to construct a 700 MW bulk generating facility in Bellingham, Massachusetts subject to conditions. Final Decision at 124. The Siting Board found that, upon compliance with the conditions set forth in that decision, the construction and operation of the proposed facility would provide a reliable energy supply for the Commonwealth with a minimum impact on the environment at the lowest possible cost. Id.; see G.L. c. 164, § 69J¼. Here, based on the Company's change in its choice of turbine and configuration, the Siting Board has examined whether the proposed changes to the facility alter the environmental balance we reached in the Final Decision.[49] In Section II, above, the Siting Board found that with the implementation of the listed condition relative to air impacts, the environmental balance we reached in the Final Decision would not be altered with the use of the compliance configuration.

Accordingly, the Siting Board finds that, upon compliance with the condition set forth in II. A, above, and the standing conditions from the Final Decision, listed below, the construction and operation of the proposed facility will provide a reliable energy supply for the Commonwealth with a minimum impact on the environmental at the lowest possible cost.

Accordingly, the Siting Board APPROVES the petition of IDC Bellingham LLC to construct a 525 MW bulk generating facility in Bellingham, Massachusetts subject to the following conditions:

Prior to the commencement of construction:

(A) The Siting Board finds that Condition A, directing the Company to make a compliance filing with the Siting Board regarding the Company's choice of turbines, has been satisfied.

During construction and operation of the proposed facility:

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[49] Matters that were addressed in the IDC Decision and which are unchanged by the Compliance Filing are not at issue in this case.

(B) In order to minimize CO_2 emissions, the Siting Board requires the Company to provide CO_2 offsets through a total contribution of $587,749 to be paid in five annual installments during the first five years of facility operation, plus a contribution of $5249 in the first year of facility operation as an offset for on-site tree clearing, to a cost-effective CO_2 offset program or programs to be selected upon consultation with the Staff of the Siting Board. If the Company in consultation with the Staff of the Siting Board selects a CO_2 offset program or programs with an overall projected cost to the Company of less than $1.50 per ton, a different cost commitment may be set which will provide offsets for more than 1 percent of facility CO_2 emissions with a cost commitment of less than $587,749 (not including the additional offsets required above for on-site tree clearing, at a cost of $5249). Alternatively, the Company may elect to provide the entire contribution within the first year of facility operation. If the Company so chooses, the CO_2 offset requirement would be satisfied by a single first-year contribution, based on the net present value of the five-year amount, to a cost-effective CO_2 offset program or programs to be selected upon consultation with the Staff of the Siting Board.

(C) In order to minimize visual impacts, the Siting Board directs the Company to provide reasonable off-site mitigation of visual impacts, including shrubs, trees, window awnings or other mutually-agreeable measures, that would screen views of the proposed generating facility and related facilities at affected residential properties and at roadways and other locations within one mile of the proposed facility, as requested by individual property owners or appropriate municipal officials consistent with the guidelines specified in Section III. F.2 of the Final Decision.

(D) In order to minimize noise impacts, the Siting Board directs the Company to implement additional noise mitigation that would limit L_{90} noise increases at receptor R-4 to 5 dBA.

(E) In order to minimize noise impacts, the Siting Board directs the Company in consultation with the Bellingham Board of Selectmen and MDEP to develop a noise compliance monitoring protocol and baseline noise measurements, taken on a schedule chosen in consultation with MDEP, that allow for the implementation of an on-going periodic noise monitoring program to begin within six months of the commencement of commercial operation. IDC shall submit a copy of the noise compliance monitoring protocol to the Siting Board prior to the commencement of commercial operation. In the process of developing this protocol the Company, the Board of Selectmen and MDEP should provide to the intervenors in this proceeding an opportunity to comment on their proposed protocol.

(F) In order to minimize safety impacts the Siting Board directs the Company to: (1) complete the construction section of its emergency response plan and file it with the Towns of Bellingham and Mendon before construction begins in order to cover possible contingencies related to construction accidents; (2) have trained personnel and equipment ready to address construction-related contingencies; (3) work with a local emergency planning committee or other appropriate entity or official selected by the Town to conduct an inventory of the equipment available and the ability of Bellingham, and cooperating communities to respond to operational emergencies at the proposed facility either alone, or in conjunction with a simultaneous emergency at another major commercial or industrial facility in the area; and (4) based on the inventory, agreed upon by a local emergency planning committee or other appropriate entity or official selected by the Town, to provide to the Town of Bellingham and to other towns that

would provide emergency assistance to Bellingham, an appropriate share based on the number of other industrial uses that could place similar demands on communities' emergency response capabilities of the equipment and/or resources necessary to handle such an event.

(G) In order to minimize traffic impacts, the Siting Board directs the Company to work with its EPC contractor and the Town of Bellingham to develop and implement a traffic mitigation plan which addresses scheduling and any necessary roadway construction or improvements consistent with the guidelines specified in Section III. I.2 of the Final Decision.

In addition, the Company must submit the following information to the Siting Board:

(H) In order to verify that the proposed project's water supply impacts are as set forth in this record, the Siting Board directs the Company to provide the Siting Board with a report at the end of its second year of operation setting forth the facility's monthly water use for the preceding two years. If the proposed facility's water use significantly exceeds the projections in this record, the Siting Board may direct the Company to participate in a water conservation program similar to that funded by ANP as a condition of its approvals, or to develop another cost effective approach to mitigate its water use. ANP-Bellingham Decision, EFSB 97-1, at 120; ANP-Blackstone Decision, EFSB 97-2, at 135.

(I) The Siting Board directs the Company to provide the Siting Board with an update on the extent and design of required transmission upgrades, and the measures incorporated into the transmission upgrade designs to minimize magnetic field impacts, at such time as

IDC reaches final agreement with all transmission providers regarding transmission upgrades.

(J) The Siting Board directs the Company to (1) provide the Siting Board with copies of its special permit application and approval, and the site plan submission and approval; and (2) provide the Siting Board with a copy of any document (e.g., deed restriction, agreement, etc.) that formalizes the disposition of the Mendon parcel to serve as conservation land, open space or permanent undeveloped buffer.

Findings in this Compliance Decision are based upon the record developed during the compliance proceeding examined in light of findings we made in the Final Decision. Since the compliance proceeding is an extension of the underlying case, the Company must construct and operate its facility in conformance with its proposal presented in the underlying case as modified by the information provided in the compliance proceeding. Therefore, the evidence the Company presented in the compliance proceeding supercedes corresponding evidence presented by the Company in the underlying proceeding; if no new evidence was presented, the evidence presented in the underlying case stands. The Siting Board requires the Company to notify the Siting Board of any changes other than minor variations to the proposal so that the Siting Board may decide whether to inquire further into a particular issue. The Company is obligated to provide the Siting Board with sufficient information on changes to the proposed project to enable the Siting Board to make these determinations.

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Jolette A. Westbrook
Hearing Officer

Dated this 12th Day of September, 2000